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पेटेंट कार्यालय का एक प्रकाशन
PUBLICATION OF THE PATENT OFFICE

INTRODUCTION

In view of the recent amendment made in the Patents Act, 1970 by the Patents (Amendment) Act, 2005 effective from 01st January 2005, the Official Journal of The Patent Office is required to be published under the Statute. This Journal is being published on weekly basis on every Friday covering the various proceedings on Patents as required according to the provision of Section 145 of the Patents Act 1970. All the enquiries on this Official Journal and other information as required by the public should be addressed to the Controller General of Patents, Designs & Trade Marks. Suggestions and comments are requested from all quarters so that the content can be enriched.

(PROF. (DR) UNNAT P. PANDIT)
CONTROLLER GENERAL OF PATENTS, DESIGNS & TRADE MARKS

9th FEBRUARY, 2024

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**THE PATENT OFFICE
KOLKATA, 09/02/2024**

Address of the Patent Offices/Jurisdictions

The following are addresses of all the Patent Offices located at different places having their Territorial Jurisdiction on a Zonal basis as shown below:-

1	Office of the Controller General of Patents, Designs & Trade Marks, Boudhik Sampada Bhavan, Near Antop Hill Post Office, S.M. Road, Antop Hill, Mumbai – 400 037 Phone: (91)(22) 24123311, Fax : (91)(22) 24123322 E-mail: cgpdtm@nic.in	4	The Patent Office, Government of India, Intellectual Property Rights Building, G.S.T. Road, Guindy, Chennai – 600 032. Phone: (91)(44) 2250 2081-84 Fax : (91)(44) 2250 2066 E-mail: chennai-patent@nic.in ❖ The States of Andhra Pradesh, Telangana, Karnataka, Kerala, Tamil Nadu and the Union Territories of Puducherry and Lakshadweep.
2	The Patent Office, Government of India, Boudhik Sampada Bhavan, Near Antop Hill Post Office, S.M. Road, Antop Hill, Mumbai – 400 037 Phone: (91)(22) 24137701 Fax: (91)(22) 24130387 E-mail: mumbai-patent@nic.in ❖ The States of Gujarat, Maharashtra, Madhya Pradesh, Goa and Chhattisgarh and the Union Territories of Daman and Diu & Dadra and Nagar Haveli	5	The Patent Office (Head Office), Government of India, Boudhik Sampada Bhavan, CP-2, Sector -V, Salt Lake City, Kolkata- 700 091 Phone: (91)(33) 2367 1943/44/45/46/87 Fax: (91)(33) 2367 1988 E-Mail: kolkata-patent@nic.in ❖ Rest of India
3	The Patent Office, Government of India, Boudhik Sampada Bhavan, Plot No. 32., Sector-14, Dwarka, New Delhi – 110075 Phone: (91)(11) 25300200 & 28032253 Fax: (91)(11) 28034301 & 28034302 E.mail: delhi-patent@nic.in ❖ The States of Haryana, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan, Uttar Pradesh, Uttaranchal, Delhi and the Union Territory of Chandigarh.		

Website: www.ipindia.nic.in

www.patentoffice.nic.in

All applications, notices, statements or other documents or any fees required by the Patents Act, 1970 and The Patents (Amendment) Act, 2005 or by the Patents (Amendment) Rules, 2006 will be received only at the appropriate offices of the Patent Office.

Fees: The Fees may either be paid in cash or may be sent by Bank Draft or Cheques payable to the Controller of Patents drawn on a scheduled Bank at the place where the appropriate office is situated.

पेटेंट कार्यालय
कोलकाता, दिनांक 09/02/2024

• कार्यालयों के क्षेत्राधिकार के पते

विभिन्न जगहों पर स्थित पेटेंट कार्यालय के पते आंचलिक आधार पर दर्शित उनके प्रादेशिक अधिकार क्षेत्र के साथ नीचे दिए गए हैं:-

1	कार्यालय : महानियंत्रक, एकस्व, अभिकल्प तथा व्यापार चिह्न, एंटोप हिल डाकघर के समीप, एस. एम. रोड, एंटोप हिल, मुम्बई- 400 037, भारत, फोन: (91) (22) 24123311 फ़ैक्स: (91) (22) 24123322 ई. मेल: cgpdtm@nic.in	4	पेटेंट कार्यालय, भारत सरकार इंटेलेक्चुअल प्रॉपर्टी राइट्स बिल्डिंग, इंडस्ट्रियल इस्टेट एसआईडीसीओ आरएमडी गोडाउन एरिया एडजसेन्ट टु ईगल फ्लास्क, जी. एस. टी. रोड, गायन्डी चेन्नई - 600 032. फोन: (91) (44) 2250 2081-84 फ़ैक्स: (91) (44) 2250-2066 ई. मेल: chennai-patent@nic.in ❖ आन्ध्र प्रदेश, तेलंगाना, कर्नाटक, केरल, तमिलनाडु तथा पुडुचेरी राज्य क्षेत्र एवं संघ शासित क्षेत्र, लक्षदीप
2	पेटेंट कार्यालय, भारत सरकार बौद्धिक संपदा भवन, एंटोप हिल डाकघर के समीप, एस. एम. रोड, एंटोप हिल, मुम्बई- 400 037, फोन: (91) (22) 24137701 फ़ैक्स: (91) (22) 24130387 ई. मेल: Mumbai-patent@nic.in ❖ ☐ गुजरात, महाराष्ट्र, मध्य प्रदेश, गोवा तथा छत्तीसगढ़ राज्य क्षेत्र एवं संघ शासित क्षेत्र, दमन तथा दीव, दादर और नगर हवेली.	5	पेटेंट कार्यालय, भारत सरकार कोलकाता, (प्रधान कार्यालय) बौद्धिक संपदा भवन, सीपी-2, सेक्टर- V, साल्ट लेक सिटी, कोलकाता-700 091, भारत. फोन: (91) (33) 2367 1943/44/45/46/87 फ़ैक्स: /Fax: (91) (33) 2367 1988 ई. मेल: kolkata-patent@nic.in ❖ भारत का अवशेष क्षेत्र
3	पेटेंट कार्यालय, भारत सरकार बौद्धिक संपदा भवन, प्लॉट सं. 32, सेक्टर- 14, द्वारका, नई दिल्ली- 110 075. फोन: (91) (11) 25300200, 28032253 फ़ैक्स: (91) (11) 28034301, 28034302 ई. मेल: delhi-patent@nic.in हरियाणा, हिमाचल प्रदेश, जम्मू तथा कश्मीर, पंजाब, राजस्थान, उत्तर प्रदेश, दिल्ली तथा उत्तरांचल राज्य क्षेत्रों, एवं संघ शासित क्षेत्र चंडीगढ़		

वेबसाइट: <http://www.ipindia.nic.in>
www.patentoffice.nic.in

पेटेंट अधिनियम, 1970 तथा पेटेंट (संशोधन) अधिनियम, 2005 अथवा पेटेंट (संशोधन) नियम, 2006 द्वारा वांछित सभी आवेदन, सूचनाएं, विवरण या अन्य दस्तावेज़ या कोई शुल्क पेटेंट कार्यालय के केवल उपयुक्त कार्यालय में स्वीकृत होंगे। शुल्क: शुल्क या तो नगद रूप में या Controller of Patents के नाम में देय बैंक ड्राफ्ट या चेक के द्वारा भेजी जा सकती है जो उसी स्थान के किसी अनुसूचित बैंक में प्रदत्त हो जहाँ उपयुक्त कार्यालय स्थित है।

SPECIAL NOTICE

18 Months publication as required under Section 11A of the Patents Act, 1970 as amended by the Patents (Amendment) Act, 2005.

Notice is hereby given that any person at any time before the grant of Patent may give representation by way of opposition to the Controller of Patents at appropriate office on the ground and in a manner specified under section 25(1) of the Patents (Amendment) Act, 2005 read with Rule 55 of the Patents (Amendment) Rules, 2006.

Notice is also given that if any interested person requests for copies of the complete specification, drawing and abstract of any application already published, the photocopy of the same can be supplied by the Patent Office as per the jurisdiction on payment of prescribed fees of Rs.8/- per page. If any further details are required to be obtained, the same can be provided by the respective Patent Offices on request.

(PROF. (DR) UNNAT P. PANDIT)
CONTROLLER GENERAL OF PATENTS, DESIGNS & TRADE MARKS

SPECIAL NOTICE

Under the new provision of the Patents Act, 1970 as amended by the Patents (Amendment) Act, 2005 and Rules there under, Publication of the matter relating to Patents in the Official Gazette of India Part III, Section 2 has been discontinued and instead The Official Journal of the Patent Office is being published containing all the activities of The Patent Office such as publication of all the patent applications after 18th months , grant of patents & all other information in respect of the proceedings as required under the provisions of the Patents (Amendment) Act, 2005 and Rules thereunder on weekly basis on every **Friday**.

The Journal is uploaded in the website every Friday. So Paper form and CD-ROM form of the Journal are discontinued from 01/01/2009.

SPECIAL NOTICE

Every effort is being taken to publish all the patent applications under section 11(A) of the Patents Act. However, if duplication of publication of any application is found, then earlier date of publication will be taken for the purpose of provisional protection for applicant and Patent Office will grant Patent not before six months from the date of second publication, provided that there is no third party representation.

Early Publication:

The following patent applications have been published under section 11A (2) of The Patents (Amendment) Act 2005 and rule 24A of The Patents (Amendment) Rules, 2006. Any person may file representation by way of opposition to the Controller of Patents at the appropriate office against the grant of the patent in the prescribed manner under section 25(1) of the Patents (Amendment) Act 2005 read with the rule 55 of The Patents (Amendment) Rules, 2006:

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202211057383 A

(19) INDIA

(22) Date of filing of Application :07/10/2022

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD TO MONITOR QUALITY OF STORED AGRICULTURE FOOD ITEMS

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(51) International classification	:G06N0003080000, G06T0007000000, G06N0003040000, G06K0009620000, G06T0017050000	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

SYSTEM AND METHOD TO MONITOR QUALITY OF STORED AGRICULTURE FOOD ITEMS Abstract The present invention relates to real-time quality monitoring of the stored agriculture food items. The method may include; storing, at a storage container, a pile of agriculture food items; receiving, at an image sensor, an image clicking instance data that is selected from a number of images needs to be captured within a pre-set time, a resolution parameter, wherein the image sensor is arranged to capture an image based on the received clicking instance data; receiving, at a controller device, the captured image from the image sensor; acquiring, at a microprocessor, the captured image from the controller device; analysing, the acquired image to determine quality score, based on comparison with the multiple food item templates, through a machine learning technique; transmitting, the determined quality score to the controller device to monitor the quality of the agriculture food items. Fig. 1

No. of Pages : 51 No. of Claims : 16

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :07/10/2022

(21) Application No.202211057384 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM TO WEIGH AND PACK AGRICULTURAL PRODUCT

(51) International classification :G01G0019393000, G06T0005000000, A23N0012020000, A23L0019000000, G06F0016510000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)INTELLO LABS PRIVATE LIMITED Address of Applicant :C-801, COURTYARD, NIRVANA COUNTRY, SECTOR 50, GURUGRAM, HARYANA 122018 --- ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)ANURAG CHANDELA Address of Applicant :INTELLO LABS PRIVATE LIMITED, C-801, COURTYARD, NIRVANA COUNTRY, SECTOR 50, GURUGRAM, HARYANA 122018 Gurugram ----- 2)GOVIND GODARA Address of Applicant :INTELLO LABS PRIVATE LIMITED, C-801, COURTYARD, NIRVANA COUNTRY, SECTOR 50, GURUGRAM, HARYANA 122018 Gurugram ----- 3)JAIVEER SINGH Address of Applicant :INTELLO LABS PRIVATE LIMITED, C-801, COURTYARD, NIRVANA COUNTRY, SECTOR 50, GURUGRAM, HARYANA 122018 Gurugram ----- 4)VIVEK DHARIWAL Address of Applicant :INTELLO LABS PRIVATE LIMITED, C-801, COURTYARD, NIRVANA COUNTRY, SECTOR 50, GURUGRAM, HARYANA 122018 Gurugram ----- 5)NISHANT MISHRA Address of Applicant :INTELLO LABS PRIVATE LIMITED, C-801, COURTYARD, NIRVANA COUNTRY, SECTOR 50, GURUGRAM, HARYANA 122018 Gurugram -----

(57) Abstract :

SYSTEM TO WEIGH AND PACK AGRICULTURAL PRODUCT Abstract The proposed system incorporates a combination weigher to create groups of a pre-specified set weight by combining multiple groups of commodities, a computer vision technique for product identification and dual packaging units that comprises a plastic film packer unit to pack a leafy vegetable, oblong-shaped vegetables and met product and net-bag packer for hard and round-shaped agricultural products such as potato, onion, tomato, apple, orange etc. Fig. 1

No. of Pages : 61 No. of Claims : 26

(54) Title of the invention : SYSTEM TO SORT AN AGRICULTURAL PRODUCT

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	(71)Name of Applicant : 1)INTELLO LABS PRIVATE LIMITED Address of Applicant :C-801, COURTYARD, NIRVANA COUNTRY, SECTOR 50, GURUGRAM, HARYANA 122018 --- ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)ANURAG CHANDELA Address of Applicant :INTELLO LABS PRIVATE LIMITED, C-801, COURTYARD, NIRVANA COUNTRY, SECTOR 50, GURUGRAM, HARYANA 122018 Gurugram ----- 2)GOVIND GODARA Address of Applicant :INTELLO LABS PRIVATE LIMITED, C-801, COURTYARD, NIRVANA COUNTRY, SECTOR 50, GURUGRAM, HARYANA 122018 Gurugram ----- 3)JAIVEER SINGH Address of Applicant :INTELLO LABS PRIVATE LIMITED, C-801, COURTYARD, NIRVANA COUNTRY, SECTOR 50, GURUGRAM, HARYANA 122018 Gurugram ----- 4)VIVEK DHARIWAL Address of Applicant :INTELLO LABS PRIVATE LIMITED, C-801, COURTYARD, NIRVANA COUNTRY, SECTOR 50, GURUGRAM, HARYANA 122018 Gurugram ----- 5)VEDANSHU KUMAR Address of Applicant :INTELLO LABS PRIVATE LIMITED, C-801, COURTYARD, NIRVANA COUNTRY, SECTOR 50, GURUGRAM, HARYANA 122018 Gurugram ----- 6)ANUBHAV ROHATGI Address of Applicant :INTELLO LABS PRIVATE LIMITED, C-801, COURTYARD, NIRVANA COUNTRY, SECTOR 50, GURUGRAM, HARYANA 122018 Gurugram ----- 7)NISHANT MISHRA Address of Applicant :INTELLO LABS PRIVATE LIMITED, C-801, COURTYARD, NIRVANA COUNTRY, SECTOR 50, GURUGRAM, HARYANA 122018 Gurugram -----

(57) Abstract :
SYSTEM TO SORT AN AGRICULTURAL PRODUCT Abstract The proposed system employs an architectural arrangement of a plurality of relevant functional element to sort an agricultural product. A hopper is arranged to receive and dispose the agricultural product to a configured conveyor unit. The conveyor unit comprises multiple sliding units arranged/ mounted slidably with a frame. Each of the sliding unit ensures linear movement and 360o rotation of agricultural product. Further, the proposed system is enabled to capture one or more images of rotating agricultural product and transmit to a control unit. The control unit applies a first stage neural network to determine boundary of the agricultural product in the captured images, and a second stage neural network to analyse the determined boundary to determine a defected area for sorting of the agricultural product. Fig. 1

No. of Pages : 59 No. of Claims : 22

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311001123 A

(19) INDIA

(22) Date of filing of Application :05/01/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : A METHOD, A SYSTEM AND AN APPARATUS FOR PAPERLESS LABORATORY MONITORING

(51) International classification :H04L0012280000, G16H0040670000, G01N0035000000, H04L0067025000, H04L0067010000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

A method and a system for paperless monitoring of a laboratory instrument (102) comprises establishing a connection with the laboratory instrument (102) and a computing device (112) associated with a user (110) via a remote server (106), by receiving a connection request from the computing device (112). The user (110) also transmits a control instruction to control the laboratory instrument (102) is received from the computing device (112) via the remote server (106). The remote server (106) allows the user (110) to update control instruction based on the measurement data received from the laboratory instrument (102) for controlled monitoring of the laboratory instrument (102). FIG. 1

No. of Pages : 62 No. of Claims : 25

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202211058628 A

(19) INDIA

(22) Date of filing of Application :13/10/2022

(43) Publication Date : 09/02/2024

(54) Title of the invention : A PROCESS FOR RESTRUCTURING OF FISH MEAT

(51) International classification :A23L0017000000, A23B0004200000, A22C0025160000, B01J0023500000, A23L0033125000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
ABSTRACT A PROCESS FOR RESTRUCTURING OF FISH MEAT The present disclosure relates to a process for restructuring fish meat. The addition of transglutaminase enzyme in the washed fish meat reduces the requirement for higher pressure for restructuring the fish meat. The process of the present disclosure is simple, fast, accurate and user-friendly. The process of the present disclosure maintains the natural freshness, taste and texture of the fish.

No. of Pages : 38 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311002659 A

(19) INDIA

(22) Date of filing of Application :13/01/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN EFFICIENT AND NATURAL BIO ENZYME BASED FLOOR CLEANER AND METHOD OF PREPARATION THEREOF

(51) International classification :A47L0011400000, A61K0036610000, C11D0007260000, A47L0011300000, C11D0011000000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

AN EFFICIENT AND NATURAL BIOENZYME BASED FLOOR CLEANER AND METHOD OF PREPARATION THEREOF

ABSTRACT: The present invention relates to a floor cleaning concentrate solution and its method of preparation, belonging to a field of cleaning formulation and comprising a formulation to prepare bio enzyme organically containing mixture of peels of fruits, jaggery and water mixed with auxiliary antifungal agent which consist of cow urine and cow dung along with auxiliary anti-microbial agent extracted from neem and eucalyptus oil along with fermentative agent made from jaggery, peel and water with optional fragrance agent extracted from eucalyptus oil and petrichor aroma specific to Kannauj, all selected to fulfill their function of being multi-functional, self-dissolving concentrate that easily dissolves in a solvent such as water without any external agitation which is safe, effective and economical to be used on all kinds of floor surfaces.

No. of Pages : 27 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311016117 A

(19) INDIA

(22) Date of filing of Application :10/03/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : A BYCATCH REDUCTION DEVICE

(51) International classification :A01K73/02
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :

ABSTRACT A BYCATCH REDUCTION DEVICE The present disclosure relates to a bycatch reduction device (BRD). The BRD is configured to reduce the catch of undesired aquatic animals. The device comprises a trawl belly, a grid frame, at least one escape opening, at least one flap, a lower cod-end, and an upper cod-end. The trawl belly is configured with an open upstream end and an open downstream end, the open upstream end configured to receive the aquatic animals therein. The grid frame is configured with at least a first mesh and at least a second mesh, and further configured to be attached on the open downstream end at a predetermined angle. The grid frame is configured to guide the undesired aquatic animals along an upstream of the grid frame towards the escape opening. Since, the sorting of fishes and shrimps takes place while capturing or fishing, advantageously, the device 100 saves lot of sorting time.

No. of Pages : 23 No. of Claims : 14

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :19/03/2023

(21) Application No.202311018671 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : PCR PRIMER FOR SENSITIVE AND RAPID IDENTIFICATION OF PATHOGEN CANDIDATUS LIBERIBACTER ASIATICUS (CLAS) BASED ON MULTICOPY NRDB GENE

(51) International classification : C12Q0001689000, C12Q0001689500, C12Q0001682700, C12Q0001685300, C12Q0001686000

(86) International Application No : NA
Filing Date : NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number : NA
Filing Date : NA

(62) Divisional to Application Number : NA
Filing Date : NA

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(57) Abstract :

ABSTRACT PCR Primer for Sensitive and Rapid Identification of pathogen Candidatus Liberibacter asiaticus (CLas) based on multicopy nrdb gene. The present invention relates to novel primer set for rapid identification of Candidatus Liberibacter asiaticus (CLas) based on multicopy nrdb gene using PCR. The present invention also relates to a PCR based method of detection of Huanglongbing (HLB) disease in citrus plants using the primer set of the present invention.

No. of Pages : 16 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :13/02/2023

(21) Application No.202311009292 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN OPTIMIZED AAV BASED PROMOTER SYSTEM FOR TARGETED SUICIDE GENE THERAPY IN HEPATOCELLULAR CARCINOMA

(51) International classification :A61K 48/00, A61P 35/00, C07K 14/005 , C12N 15/09, C12N 15/86
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

AN OPTIMIZED AAV BASED PROMOTER SYSTEM FOR TARGETED SUICIDE GENE THERAPY IN HEPATOCELLULAR CARCINOMA ABSTRACT An optimized AAV-based promoter system for targeted suicide gene therapy in hepatocellular carcinoma is provided. The invention includes the development of Kozak optimized LP1 liver-specific promoter to drive the iCasp9 gene in one form and Kozak-optimized baculoviral IAP repeat-containing protein 5 (Birc5) promoters with E2F1 transcription factor binding site driving iCasp9 gene in another form for an enhanced and specific therapeutic response when compared to the gene transfer of wild type iCasp9 gene. The optimized AAV-based promoter system has a use case in gene therapy-based products, especially gene therapy for liver cancer. The optimized AAV-based promoter system is likely to serve as an effective treatment strategy for HCC.

No. of Pages : 58 No. of Claims : 17

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :31/03/2023

(21) Application No.202311024642 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SYSTEM AND METHOD FOR INTELLIGENTLY CHARGING BUILT-IN WIRELESS EARPHONES

(51) International classification :H04R0001100000, H02J0007000000, A61B0005000000, G06Q0030020000, H04W0004240000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr B R Ambedkar National Institute of Technology Jalandhar Address of Applicant :G.T. Road, Amritsar Bye-Pass, Jalandhar (Punjab), India - 144027. ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr Samayveer Singh Address of Applicant :Department of Computer Science & Engineering Dr B R Ambedkar National Institute of Technology Jalandhar G.T. Road, Amritsar Bye-Pass, Jalandhar (Punjab), India – 144027 ----- 2)Dr Aruna Malik Address of Applicant :Department of Computer Science & Engineering Dr B R Ambedkar National Institute of Technology Jalandhar G.T. Road, Amritsar Bye-Pass, Jalandhar (Punjab), India - 144027 ----- 3)Dr Rajeev Kumar Address of Applicant :Department of Computer Science & Engineering Delhi Technological University New Delhi Shahbad Daulatpur Village, Rohini, New Delhi, Delhi 110042 -----

(57) Abstract :

The system for intelligently charging built-in wireless earphones through a communication device including an artificial intelligence module (205), intelligently charging module (204) that comprises of a tracker module (302), a positioning module (304), an internet module (306), a scheduling module (308), a charging module (309), an analysis module (310), a charging module (309), and an information display module (314). Further, the present invention relates to a method for intelligent charging of built-in wireless earphones through a communication device wherein intelligently charging module (204) and its sub-modules use various factors based on communication device's battery and built-in wireless battery usage. Thereby, the present invention provides optimal utilization of the communication device's and built-in wireless earphone's battery. The present invention also provides maximum usage of a communication device and built-in wireless earphones based on current and probable circumstances.

No. of Pages : 39 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :11/04/2023

(21) Application No.202311026723 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : MALONIC ACID CROSSLINKED STARCHES BASED POLYMER-IN-SALT-ELECTROLYTES (PISES) FOR ENERGY DEVICES

(51) International classification	:H01L0051500000, A61K0047120000, H01M0010056200, A61K0008020000, A21D0002180000	(71)Name of Applicant : 1)Banaras Hindu University Address of Applicant :Banaras Hindu University, Varanasi-221005, UP India ----- Name of Applicant : NA Address of Applicant : NA
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(61) Patent of Addition to Application Number	:NA	4)Kanak Aggarwal Address of Applicant :Department of Physics (MMV) Banaras Hindu University, Varanasi-221005, India Varanasi -----
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The present invention discloses a malonic acid crosslinked Starches based polymer-in-salt-electrolyte (PISEs) for energy devices. More specifically the present invention discloses the chemical composition and synthesis process of PISEs which are formed by the combination of polymer host (malonic acid crosslinked starches where starch means any starches from different botanical origins such as arrowroot, potato, wheat, corn, rice etc.) and salts (magnesium, calcium and sodium salts having different anions) to attain high conductivity (~0.01 S/cm which is much greater than the bare minimum required value of 10⁻⁴ S/cm) in flexible morphology for energy device fabrication. These PISEs have electrochemical stability window more than 2V.

No. of Pages : 17 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311045221 A

(19) INDIA

(22) Date of filing of Application :05/07/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : A CLIPPING PLIER FOR DENTAL ALIGNERS

(51) International classification :A61C19/00, A61C7/02, A61C7/04, B25B27/00, B25B7/22
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT A CLIPPING PLIER FOR DENTAL ALIGNERS The present invention relates to the field of orthodontic instruments or cutting pliers, particularly for dental aligners. The present invention provides a clipping plier for trimming dental aligner to obtain scalloped margin comprises a left arm and a right arm joined through a pivot (3), wherein the left and right arms of the clipping plier comprise symmetrical jaws (2). Figure 2:

No. of Pages : 26 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :07/09/2022

(21) Application No.202211051185 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : RHOMBOHEDRAL HIGH-ENTROPY ALLOY OF MN-AL-CU-ZN-BI

(51) International classification :A61P0031040000, G11C0011419000, A61P0031000000, A61B0090000000, A47J0031360000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)INDIAN INSTITUTE OF TECHNOLOGY (BANARAS HINDU UNIVERSITY), VARANASI Address of Applicant :Varanasi-221005, Uttar Pradesh, India Varanasi ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)NAND KISHORE PRASAD Address of Applicant :Department of Metallurgical Engineering, Indian Institute of Technology, Banaras Hindu University, Varanasi-221005, Uttar Pradesh, India Varanasi ----- - 2)N. SAI ANURAAG Address of Applicant :Department of Metallurgical Engineering, Indian Institute of Technology, Banaras Hindu University, Varanasi-221005, Uttar Pradesh, India Varanasi ----- - 3)SANJULA PRADHAN Address of Applicant :Department of Metallurgical Engineering, Indian Institute of Technology, Banaras Hindu University, Varanasi-221005, Uttar Pradesh, India Varanasi ----- - 4)SUBHAM KUMAR SHAW Address of Applicant :Department of Metallurgical Engineering, Indian Institute of Technology, Banaras Hindu University, Varanasi-221005, Uttar Pradesh, India Varanasi ----- -

(57) Abstract :

ABSTRACT RHOMBOHEDRAL HIGH-ENTROPY ALLOY OF Mn-Al-Cu-Zn-Bi The present invention relates to a high entropy alloy comprising of a plurality of transition metal elements, an element from group 13 and an element from group 15 and a method of preparation thereof. The present invention provides monophasic HEA having rhombohedral structure with the composition comprising of a plurality of transition metal elements, an element from group 13 and an element from group 15. The monophasic rhombohedral high entropy alloy (HEA) of the present invention has immense potential as an electro-catalyst for the hydrogen evolution reaction. Figure 1 on sheet no. 1 of the drawings may accompany the abstract when published.

No. of Pages : 26 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311075968 A

(19) INDIA

(22) Date of filing of Application :07/11/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : A MICROFLUIDIC DEVICE FOR SELECTIVE SURFACE-ENHANCED RAMAN SPECTROSCOPY-BASED DETECTION OF A TARGET BIOMARKER

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(61) Patent of Addition to Application Number	:NA :NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA :NA	
Filing Date	:NA	

(57) Abstract :

A MICROFLUIDIC DEVICE FOR SELECTIVE SURFACE-ENHANCED RAMAN SPECTROSCOPY-BASED DETECTION OF A TARGET BIOMARKER ABSTRACT The present invention provides a microfluidic device (300) for selective SERS-based detection of a target biomarker. The microfluidic device (300) comprises a microfluidic channel (302) configured to provide a closed contamination-free environment during a detection process, a screening membrane (304) comprising a synthesized purine ligand (306) for selectively binding to the target biomarker, a substrate embedded with plasmonic nanoparticles and positioned within the microfluidic channel (302), an inlet (308) for introducing a sample into the microfluidic channel, and an outlet (310) for removing non-bonded components of the sample, whereby selective detection of the target biomarker is achieved with reduced noise. The microfluidic device uses the purine ligand molecule as a screening membrane in a unique way, which can be modified to selectively screen different analytes. The device reduces the noise of unwanted components which is crucial for commercial application and widespread use of such devices. FIG. 2

No. of Pages : 39 No. of Claims : 11

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311077689 A

(19) INDIA

(22) Date of filing of Application :15/11/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : MEASURING DEVICE FOR MEASURING A PATH AND METHOD THEREOF

(51) International classification :G06Q0010060000, A61B0005000000, G06F0001160000, A61B0005110000, A61B0005080000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT MEASURING DEVICE FOR MEASURING A PATH AND METHOD THEREOF The present invention discloses a measuring device for measuring a path and a method thereof. The measuring device (100) comprises a plurality of sensors (102), a hardware processing unit (104), and a communication interface (108). The measuring device (100) utilizes the plurality of sensors (102) to determine the length and an angle of rotation. The measuring device (100) is configured to connect with a cartography generation subsystem (106). The cartography generation subsystem (106) is configured to generate cartography data for depicting the one or more parameters. This multifaceted data collection approach enables the calculation of an area and the creation of detailed object maps, providing a holistic view of the measured path. Further, the measuring device (100) enables real-time transmission of measured data of the path to one or more Internet of Things (IoT) devices to enhance data collection and analysis, thereby offering further convenience and utility to a user. FIG. 1A

No. of Pages : 29 No. of Claims : 13

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202211068778 A

(19) INDIA

(22) Date of filing of Application :29/11/2022

(43) Publication Date : 09/02/2024

(54) Title of the invention : LATERAL FLOW ASSAY DEVICE, CHIMERIC PROTEIN ANTIGENS, FOR SIMULTANEOUSLY DETECTING ANTIBODIES AGAINST THEILERIA, BABESIA, ANAPLASMA

(51) International classification :A61K0039018000, G01N0033558000, G01N0033569000, B01L0003000000, G01N0033543000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

The present disclosure relates to a lateral flow assay device for detection of an analyte in a sample and a method of detection thereof. The present disclosure also provides chimeric antigenic protein of SEQ ID No.1, SEQ ID No.2 and SEQ ID No.3 against antibodies of Theileria annulate, Babesia bigemina and Anaplasma marginale respectively. Ref. Fig.1

No. of Pages : 52 No. of Claims : 18

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :20/01/2023

(21) Application No.202311004140 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A PROCESS FOR A SIMULTANEOUS RECOVERY OF MULTIPLE BACTERIOPHAGES

(51) International classification :A61K0035760000, C12N0007000000, A61P0031040000, C01B0003500000, A01N0063400000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT A PROCESS FOR A SIMULTANEOUS RECOVERY OF MULTIPLE BACTERIOPHAGES The present disclosure relates to a process for a simultaneous recovery of multiple bacteriophages from a single inoculum against psychrophilic and psychrotrophic spoilage bacteria. The process of the present disclosure is effective and results in the recovery of multiple bacteriophages that are stable under different temperatures.

No. of Pages : 37 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311036860 A

(19) INDIA

(22) Date of filing of Application :29/05/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : NOVEL SYNTHETIC SELECTIVE BIOLOCATORS AND IDENTIFIERS FOR MULTI COPY NRDB GENE

(51) International classification :C12Q0001689500, C12Q0001689000, G01N0033569000, C12Q0001688800, C12Q0001684800

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Abstract The present invention relates to the development of novel detection techniques for Candidatus liberibacter asiaticus species,causing citrus greening disease. The primers are nrdb gene based non-complementary ones which are synthetic selective and specific to the 4 subunits of the gene. The primers developed are nrdb S1F1/R1, nrdb S2F1/R1, nrdb L1F1/R1,nrdb L3F1/R1, and nrdb L2 F2/R2. The primer in F1 nomenclature (forward orientation), starts with 5' and ends at 3' and vice versa for R1 (reverse orientation) with an average length of 18-23 base pairs.The present technique is applicable to the basic model of PCR making detection method convenient and easy for field handling. The primers owing to their specificity are capable of easy and rapid detection of the Candidatus liberibacter asiaticus, diagnosing citrus greening disease,with an accuracy rate of 98-100 %.

No. of Pages : 31 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311043883 A

(19) INDIA

(22) Date of filing of Application :30/06/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYNTHESIS OF NOVEL PONGAMOL DERIVATIVES AND ANTIMICROBIAL ACTIVITY THEREOF

(51) International classification :A61K0008490000, A61P0031040000, A61K0008370000, A61K0039290000, A61Q0017040000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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4)Rajiv Gupta

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(57) Abstract :

The present invention relates to synthesis of novel pongamol derivatives and antimicrobial activity thereof. Seventeen novel pongamol derivatives were synthesized, and their structures were confirmed by analytical techniques such as NMR and mass spectroscopy. Antimicrobial activity of the pongamol derivatives was carried out. Compounds PSC, P2CPH, P4HBA, PISPPH, and P3MPH showed significant antimicrobial activity compared with clarithromycin and ciprofloxacin.

No. of Pages : 21 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311079238 A

(19) INDIA

(22) Date of filing of Application :22/11/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN ADVANCED CEMENT KILN OPTIMIZATION SYSTEM AND METHOD THEREOF

(51) International classification :G06Q0010040000, G05B0019418000, G05B0013020000, G06Q0010060000, G06K0009620000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Ripik Technology Private Limited Address of Applicant :A 606, B-9/1A, Designer Park, Sector No-62, Noida Gautam Buddha Nagar, Uttar Pradesh-201309, India ----- 2)UltraTech Cement Limited Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Pinak Dattaray Address of Applicant :A 606, B-9/1A, Designer Park, Sector No-62, Noida, Gautam Buddha Nagar, Uttar Pradesh-201309, India --- ----- 2)Deepak Joshi Address of Applicant :House no. 6, Kedar Dream City, Behind Poddar International School, Dhule 424005, Mumbai, India ----- -----

(57) Abstract :

The present invention discloses an advanced cement kiln optimization system to enhance the efficiency, quality, and sustainability of cement production. The system comprises an intricate network of sensors, a central data processing unit, a digital twin module, machine learning algorithms, a big data platform, and a centralized control system. These components work in harmony to continuously monitor, analyze, and optimize the operation of a cement kiln. The method for cement kiln optimization involves data collection, preprocessing, real-time monitoring, predictive analysis, and process optimization. The utilization of digital twinning and simulation facilitates testing and validation of optimization strategies, reducing risks and ensuring effective changes in the physical kiln. This innovative system contributes to improved efficiency, emissions reduction, and consistent product quality, exemplifying the future of sustainable cement production.

No. of Pages : 20 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :07/07/2023

(21) Application No.202311045888 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A PROCESS FOR THE PREPARATION OF DRAGON FRUIT READY-TO-SERVE BEVERAGE

(51) International classification :A23L0002020000, A23F0005240000, A23L0033160000, A23L0002520000, A61K0047100000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention relates to ready-to-serve beverage from dragon fruit. Specifically, the present invention relates to a process for the preparation of a ready-to-serve beverage from dragon fruit. Further, the dragon fruit ready-to-serve beverage prepared from pink dragon fruit pulp having clear juice appearance retains its bright pink colour even after six months of storage under ambient conditions.

No. of Pages : 19 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311054125 A

(19) INDIA

(22) Date of filing of Application :11/08/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : Digital Ocular Diagnostics: Method and System for Calculating Human Eye Refractive Power via Computer and Smartphone Technology

(51) International classification	:G02B0027010000, G06F0003010000, G09G0005100000, G08G0001160000, H04N0021410000	(71)Name of Applicant : 1)IYER, Ganesh Address of Applicant :S/o Anandhan Ranganathan D202-Bestech Park View Spa, Sector 47, Gurgaon 122018, India Gurgaon ----- 2)LAMBA, Jawahar 3)BIRLA, Raghav Name of Applicant : NA Address of Applicant : NA
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(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The present invention is to provide a system or a method for determining human eye vision score through a display device. The display device is equipped with a software application connected to one or more servers. The method includes detecting configuration of a display screen of a display device before displaying graphical images, determining by a camera of the display device a distance score based on the distance between a user and the display device, prompting the user through the display device to maintain a threshold distance between the user and the display device, displaying a first set of graphical images for calculating a vision score for one eye of the user, receiving a confirmation from the user on visibility of the displayed first set of graphical images, displaying a second set of graphical images for calculating a vision score for other eye of the user, receiving a confirmation from the user on visibility of the displayed second set of graphical images and generating a combined vision score for the user. Figure 1

No. of Pages : 45 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311077320 A

(19) INDIA

(22) Date of filing of Application :14/11/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN ADVANCED HYBRID COMPOSITE MATERIAL FOR ENHANCED SUPERCAPACITOR ELECTRODES

(51) International classification :B82Y30/00, B82Y40/00, C01B32/198, H01G11/24, H01G11/26, H01G11/36, H01G11/46, H01G11/86 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)INDIAN INSTITUTE OF TECHNOLOGY KANPUR Address of Applicant :DEAN, RESEARCH & DEVELOPMENT, ROOM NUMBER 151, FACULTY BUILDING, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA KANPUR ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)KAMAL KRISHNA KAR Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING & MATERIALS SCIENCE PROGRAMME, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA KANPUR ----- 2)MUKESH KUMAR Address of Applicant :DEPARTMENT OF MATERIALS SCIENCE PROGRAMME, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA KANPUR ----- 3)MANAS K. GHORAI Address of Applicant :DEPARTMENT OF CHEMISTRY, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA KANPUR ----- 4)SRI NIWAS SINGH Address of Applicant :DEPARTMENT OF ELECTRICAL ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA KANPUR -----

(57) Abstract :

AN ADVANCED HYBRID COMPOSITE MATERIAL FOR ENHANCED SUPERCAPACITOR ELECTRODES ABSTRACT The present patent invention provides a novel hybrid composite material engineered for high-performance supercapacitor electrodes. The hybrid composite material consists of controlled-porosity holey graphene layers co-doped with nitrogen and sulfur, complemented by ruthenium nanoparticles and ruthenium oxide decorations. The resulting composite exhibits enhanced pseudocapacitance properties, significantly improving energy storage efficiency. A method for synthesizing the hybrid composite material combining exfoliation, dispersion, and thermal treatments, is also disclosed. The symmetric supercapacitor electrode incorporating the hybrid composite material displays exceptional specific capacitance and energy density. The present invention addresses the need for more efficient and durable supercapacitors, offering promise for a wide range of applications requiring rapid energy storage and discharge. The hybrid composite materials can also be used as a fuel cell catalyst, electrode in batteries, hydrogen storage, and microwave absorber material. FIG. 2

No. of Pages : 41 No. of Claims : 15

(54) Title of the invention : SAFETY DEVICE FOR WOMEN

(51) International classification :G06F1/3231, G06F1/3234,
H04R1/00

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to
Application Number :NA
Filing Date :NA

(62) Divisional to Application
Number :NA
Filing Date :NA

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(72)**Name of Inventor :**
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HARYANA - 122010 Gurugram -----

(57) Abstract :

SAFETY DEVICE FOR WOMEN ABSTRACT The disclosure relates to a safety apparatus for personal protection. The apparatus comprises an enclosure that houses a pair of outwardly protruding electrodes and a first input interface for user activation. A motion sensing unit within the apparatus detects the motion state of user and generate a signal when the motion surpasses a certain threshold. The apparatus also includes a power management unit, consisting of a power source to supply initial electrical energy at a predefined level and a power regulator to increase the energy to a higher level. The control unit of the apparatus is tasked with acquiring the activation input from user and the motion signal, and controlling the power management unit to supply the increased level of electrical energy to the electrodes for a set duration. Such safety apparatus provides an effective means of personal defense, integrating motion sensing and controlled electrical discharge capabilities. Fig. 1

No. of Pages : 30 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311081755 A

(19) INDIA

(22) Date of filing of Application :01/12/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : A COMPOSITION OF ZERO CALORIE STEVIA SWEETENER

(51) International classification :A23L 27/30, A23L 33/105, A61K 36/28, A61P 3/04, A61P 3/10

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(72)Name of Inventor :

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Address of Applicant :100, Udyog Kendra, Toy city, Greater Noida, Gautam Buddha Nagar - 201308, Uttar Pradesh, India -----

(57) Abstract :

A composition of zero-calorie stevia sweetener [0045] The present invention relates to a composition zero-calorie stevia sweetener. The composition comprises stevia extract at a concentration ranging from 0.1% to 19% and a bulking agent at a concentration ranging from 75% to 99.9%. The composition of zero-calorie stevia sweetener is formulated in the form of crystal, powder, cubes, drops. The composition comprising stevia extracts is of zero calories and is of very low glycaemic index. The composition exhibits high degree of purity of >95% and safety as the composition is free from additives. The composition aids in management of obesity and diabetes. The composition exhibits enhanced dissolution at hot and cold temperatures. The composition is compatible with food and beverages as a sweetener.

No. of Pages : 18 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :05/12/2023

(21) Application No.202311082765 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : COMPUTER-IMPLEMENTED STIGMA SEPARATION SYSTEM AND METHOD FOR SEPARATING STIGMAS FROM FLOWERS

(51) International classification :G06N0003040000, G06T0015000000, A01H0001020000, G01S0017890000, G06N0003080000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)INDIAN INSTITUTE OF TECHNOLOGY KANPUR Address of Applicant :DEAN, RESEARCH & DEVELOPMENT, ROOM NUMBER 151, FACULTY BUILDING, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA KANPUR ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)PRATEEK YADAV Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA KANPUR ----- 2)NITIK JAIN Address of Applicant :DEPARTMENT OF AEROSPACE ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA KANPUR ----- 3)RATNANGSHU DAS Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA KANPUR ----- 4)INDRANIL SAHA Address of Applicant :DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA KANPUR -----

(57) Abstract :
COMPUTER-IMPLEMENTED STIGMA SEPARATION SYSTEM AND METHOD FOR SEPARATING STIGMAS FROM FLOWERS ABSTRACT A computer-implemented stigma separation system (100) for separating stigmas from flowers (302), is disclosed. The computer-implemented stigma separation system (100) includes (a) conveyor belts (102) arranged to obtain flowers (302); (b) computer vision units (104) comprising (i) industrial monochrome camera devices (106) configured to capture images of flowers (302), (ii) noise controllers (108) configured to control noises from images by applying morphological processes (206), and (iii) offset computation units (110) configured to determine offset points of the flowers (302) based on coordinate values, by a CNN model, (c) lead-screw based linear positioning units (112) configured to: (i) obtain signals comprising coordinate values associated with offset points (604), from offset computation units (110), (ii) control motions of pneumatic-based cutting tools (114) for cutting the stigmas of the flowers (302) based on coordinate values; and (d) shaker tables (116) configured to separate stigmas from flowers (302), based on vibration techniques. FIG. 1

No. of Pages : 43 No. of Claims : 11

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311084996 A

(19) INDIA

(22) Date of filing of Application :13/12/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : HYBRID MULTI-LAYERED MEMBRANE FOR COMPREHENSIVE WATER PURIFICATION AND DRINKING WATER QUALITY ENHANCEMENT

(51) International classification	:B01D15/02, B01D61/022, B01D61/027, B01D69/02, B01D69/10, B01D69/12, B01D71/48, B82Y30/00	(71)Name of Applicant : 1)INDIAN INSTITUTE OF TECHNOLOGY KANPUR Address of Applicant :DEAN, RESEARCH & DEVELOPMENT, ROOM NUMBER 151, FACULTY BUILDING, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA Kanpur -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
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		- -----

(57) Abstract :

HYBRID MULTI-LAYERED MEMBRANE FOR COMPREHENSIVE WATER PURIFICATION AND DRINKING WATER QUALITY ENHANCEMENT ABSTRACT The present invention provides a hybrid multi-layered membrane designed for water purification and enhances the quality of drinking water. The hybrid multi-layered membrane comprises a polymer substrate, nanoadsorbents (NAs) anchored via chemical bonding, and natural fibers. This multifunctional membrane exhibits exceptional stability, resistance to bio-fouling, and reusability. The hybrid multi-layered membrane selectively removes contaminants including antibiotic-resistant bacteria (ARB), antibiotics, hardness, humic acid, and heavy metals. The incorporation of interfacial layers of organic compounds further enhances bonding stability. The resulting membrane is characterized by water superphobicity and offers an eco-friendly solution to prevailing water pollution challenges. The hybrid multi-layered membrane holds the potential to ensure high-quality drinking water production and can be seamlessly integrated into water treatment systems. The hybrid multi-layered membrane of the present invention marks a significant advancement in the field of water purification technology. FIG. 1

No. of Pages : 18 No. of Claims : 12

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311053255 A

(19) INDIA

(22) Date of filing of Application :08/08/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : DELIVERY ASSISTANCE SYSTEM AND METHOD THEREOF

(51) International classification :H04M0003510000, G07G0001000000, H04M0003420000, B60D0001620000, H04W0074000000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to :NA

Application Number :NA

Filing Date

(62) Divisional to Application Number :NA

Filing Date :NA

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(72)Name of Inventor :

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(57) Abstract :

ABSTRACT DELIVERY ASSISTANCE SYSTEM AND METHOD THEREOF The present disclosure implements delivery assistance system and method that ensures suitable inventory management, pilfer proof and timely delivery of the LPG cylinders at the door step of a user/consumer. The delivery assistance system is configured to receive an order of the LPG cylinder via a web/mobile application. The web/mobile application may be hosted on a local or a remote cloud/server that keeps the record of the inventory of distributors and the users mapped to the respective distributor. In one non-limiting aspect, each distributor may be allocated a particular geographical area and all user present with that particular geographical area are mapped to the respective distributors. The delivery assistance system provides the optimised route to the respective distributor for their deliveries based on availability of vehicle, capacity and driver availability.

No. of Pages : 40 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311078546 A

(19) INDIA

(22) Date of filing of Application :17/11/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN AMPHIPHILIC POLYPHENOL-MONOGLYCERIDE CONJUGATE

(51) International classification	:A61K47/14, A61K47/48, A61K47/50, A61K47/60, A61P35/00, B82Y5/00	(71)Name of Applicant : 1)Institute of Nano Science and Technology Address of Applicant :Knowledge City, Sector-81, Manuali, Mohali, Punjab 140306, India -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor : 1)KHAN, Dr Rehan Address of Applicant :Institute of Nano Science and Technology Knowledge City, Sector-81, Manuali, Mohali, Punjab 140306, India -----
(61) Patent of Addition to Application Number	:NA	2)KUMAR, Ajay Address of Applicant :Institute of Nano Science and Technology Knowledge City, Sector-81, Manuali, Mohali, Punjab 140306, India -----
Filing Date	:NA	3)SAKLA, Rahul Address of Applicant :Institute of Nano Science and Technology Knowledge City, Sector-81, Manuali, Mohali, Punjab 140306, India -----
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

ABSTRACT AN AMPHIPHILIC POLYPHENOL-MONOGLYCERIDE CONJUGATE 5 The present invention discloses an amphiphilic polyphenol-monoglyceride conjugate comprising Gallic Acid (GA) and Glycerol Monostearate (GMS). It also discloses a method of preparation of said conjugate comprising the steps: (a) protecting gallic acid hydroxyl groups with isobutyrate by reacting gallic acid with isobutyric anhydride; and (b) conjugating the isobutyrate-protected gallic acid with glycerol monostearate.

No. of Pages : 21 No. of Claims : 13

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311086653 A

(19) INDIA

(22) Date of filing of Application :18/12/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : FORMULATION OF COSMETIC SOAP BAR FOR ADULTS

(51) International classification :A61K 36/736, A61K 36/899, A61K 8/64, A61K 8/67, A61K 8/92, A61K 8/97, A61Q 19/10
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention discloses a novel formulation of cosmetic soap bar for adults comprising Donkey milk powder, Hyaluronic acid, Retinoids, Vitamin K, Prunus Amygdalus, Cocos Nucifera Oil, Triticum Vulgare Germ Oil, Tetrasodium Etidronate, and Pentaerythrityl Tetra-Di-T-Butyl Hydroxyhydrocinnamate as active ingredients in the specified proportions. The formulation is prepared by combining the aforementioned ingredients in specific proportions to achieve optimal efficacy. The formulation may also include suitable excipients, stabilizers, and thickeners to achieve the desired texture and stability. The combination of the novel formulation in a soap bar offers a holistic approach to skincare. The unique properties of each ingredient, working synergistically, make this formulation a comprehensive solution for individuals seeking multifaceted cosmetic benefits and radiant skin.

No. of Pages : 10 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311086655 A

(19) INDIA

(22) Date of filing of Application :19/12/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : FORMULATION OF COSMETIC CREAM

(51) International classification :A61K8/25, A61K8/35, A61K8/37, A61K8/49, A61K8/89, A61Q17/04
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention discloses a novel formulation of cosmetic cream for adults to be used as anti marks and sunscreen comprising Hydroquinone, Tretinoin, Octyl Methoxycinnamate, Diethylhexyl Butamido Triazone, Diethylamino Hydroxybenzoyl Hexyl Benzoate, C12-15 Alkyl Benzoate, Silicone Elastomer Blend, Cyclopentasiloxane and fragrance as active ingredients in the specified proportions. The formulation is prepared by combining the aforementioned ingredients in specific proportions to achieve optimal efficacy. The formulation may also include suitable excipients, stabilizers, and thickeners to achieve the desired texture and stability. The combination of these ingredients creates a synergistic effect, addressing both cosmetic and protective aspects. Hydroquinone and Tretinoin work on skin tone and texture, while the sunscreen agents guard against UV-induced damage. The emollient and sensory-enhancing components ensure a delightful user experience. Incorporating the novel formulation in a cosmetic cream creates a comprehensive solution for addressing skin imperfections and providing effective sun protection. The carefully balanced formulation offers a multifaceted approach to skincare, promoting both cosmetic enhancement and long-term skin health.

No. of Pages : 10 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :16/12/2023

(21) Application No.202311086040 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : FORMULATION FOR TREATMENT OF ARTHRITIS

(51) International classification :A61K31/167, A61K31/196, A61K31/5415, A61K9/00, A61K9/20, A61P19/02, A61P29/00
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :

The invention discloses a novel formulation for the treatment of arthritis, leg cramps and protection of muscles from exercise-induced damage, containing a combination of Diclofenac Sodium, Piroxicam, Paracetamol, and Vitamin E as active ingredients wherein the proportions of the active ingredients are optimized for maximum efficacy. The combination of these active ingredients offers a holistic therapeutic approach, providing relief from pain, inflammation, and contributing to the overall well-being of individuals suffering from arthritis. The formulation can be prepared in various pharmaceutical forms, such as tablets, capsules, or liquid formulations. The specific amounts of each active ingredient may be adjusted within a range to optimize efficacy while minimizing side effects.

No. of Pages : 13 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :21/12/2023

(21) Application No.202311087485 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A HIGH-STABILITY SOLID-STATE LITHIUM ORGANIC BATTERY

(51) International classification :H01M10/0525, H01M10/0562, H01M4/04, H01M4/13, H01M4/36, H01M4/58, H01M4/60, H01M6/16
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT A HIGH-STABILITY SOLID-STATE LITHIUM ORGANIC BATTERY The present invention provides a solid-state lithium organic battery. The solid-state lithium organic battery comprises an earth-abundant organic cathode combined with a composite electrolyte. The earth-abundant organic cathode comprises a pyrene-4,5,9,10-tetraone (PTO) cathode material. The composite electrolyte comprises a polymer and sulfide based solid electrolyte. The solid-state lithium organic battery is configured for increased charge/discharge operational stability exceeding 100 cycles with at least 94% capacity retention at a high charge/discharge rate of 0.3 C. The PTO cathode material is configured for a capacity of up to 250 mAh/g at 0.3 C and > 150 mAh/g at 1 C. The composite electrolyte is configured for a high ionic conductivity of $1.26 \times 10^{-4} \text{ O-1cm}^{-1}$ at 40 °C. The solid-state composite electrolyte of the present invention not only improves the interface with the cathode but also mitigates the dissolution of the cathode's active material, thereby inculcating long-term cycling stability in the cell. FIG. 4

No. of Pages : 27 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :26/12/2023

(21) Application No.202311088874 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SMART BOUNDARY DETECTION SYSTEM

(51) International classification :A63B0024000000, G11C0007100000, H01J0049140000, A63B0071020000, A63B0071060000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

A SMART BOUNDARY DETECTION SYSTEM Disclosed herein a smart boundary detection system, wherein said system comprising a plurality of sensors associated with sports field boundary conditions, a circuitry board configured to receive signals related to the sports field boundary conditions from the plurality of the sensors, and a plurality of LEDs connected to the circuitry board and configured to indicate occurrence of predetermined boundary related events associated with the sport based on the signals received by the circuitry board. A method for detecting boundary across the different types of sports is also disclosed. The smart boundary detection system provides precise decision-making in a quicker manner in real time based on the interaction of sport playing equipment with the boundary.

No. of Pages : 17 No. of Claims : 11

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311088928 A

(19) INDIA

(22) Date of filing of Application :27/12/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN INTELLIGENT AUTOMATED TARGETED ADVERTISEMENT COLLATION SYSTEM AND METHOD THEREOF

(51) International classification :G06Q0030020000, G06N0020000000, G06F0016951000, G06Q0040000000, G06Q0030060000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Pooja Jain Address of Applicant :H.No. 507, Sector 18B, Chandigarh – 160014, India Chandigarh ----- 2)Kavita Taneja 3)Harmunish Taneja Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Pooja Jain Address of Applicant :H.No. 507, Sector 18B, Chandigarh – 160014, India Chandigarh ----- 2)Kavita Taneja Address of Applicant :756, First Floor, Sector 41 A, Chandigarh-160036, India Chandigarh ----- 3)Harmunish Taneja Address of Applicant :756, First Floor, Sector 41 A, Chandigarh-160036, India Chandigarh -----

(57) Abstract :

The invention discloses structured search interface for advertisements that matches the user defined keywords, and performs advertisement recognition and classification using an intelligent algorithm based on machine learning. It is user-friendly, inexpensive, and effective since it provides thorough search across a variety of online English and regional language newspapers for more analysis and research. The system comprises of a communication module (101), an embedded controller (102) with channel selection (103), a user defined programmable connectivity module (104) and a cloud server (105) with embedded machine learning model (106). The advantage of such a system is it provides easy and effective access to online advertisement to collate under user specified categories with cost effective and easy to use operation. The system is user friendly and is configurable for private or public use.

No. of Pages : 26 No. of Claims : 7

(54) Title of the invention : FORMULATION FOR IMPROVING CARDIOVASCULAR HEALTH

(51) International classification :A61P0009000000, A61P0003060000, A61P0009100000, A61K0031122000, A23L0033110000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

The invention discloses a novel formulation for improving cardiovascular health. Cardiovascular diseases are a significant public health concern globally. Cardiovascular diseases are a leading cause of morbidity and mortality worldwide. The disclosed dietary supplement is designed to address the underlying factors contributing to cardiovascular health issues, providing a holistic approach to prevention and support. The novel formulation of a dietary supplement for improving cardiovascular health comprises a synergistic combination of Omega-3s EPA and DHA, Coenzyme Q10, Monacolin K, Vitamin D, Soluble Fiber, Phytosterols, Magnesium, L-Carnitine, Folic acid, Vitamin B6, Vitamin B12, Vitamin C, Vitamin D3, Sterols and Stanols, Niacin, Thiamin, Vitamin K2, Potassium, Zinc, and Lutein as active ingredients wherein the proportions of the active ingredients are optimized for maximum efficacy. The formulation can be prepared in various pharmaceutical forms, such as tablets, capsules, powder or liquid formulations. The formulation supports healthy cholesterol levels, promotes optimal blood pressure, enhances overall cardiovascular function, provides antioxidant support and supports energy metabolism.

No. of Pages : 12 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311086157 A

(19) INDIA

(22) Date of filing of Application :18/12/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : FORMULATION OF OIL FOR TREATMENT OF HAIRS AND SCALP

(51) International classification :A61K8/19, A61K8/27, A61K8/33, A61K8/34, A61K8/92, A61Q5/00, A61Q7/00
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention discloses a novel formulation of oil for the treatment of hairs and scalp comprising Coconut Oil, Olive Oil, Potassium, Iron, Zinc, Capric Caprylic Tri-Glycerides (CCTG), Biotin, Minoxidil, Butylated Hydroxytoluene, and Methylparaben. The formulation is prepared by combining the aforementioned ingredients in specific proportions to achieve optimal efficacy. The method of preparation involves blending the oils, adding minerals and vitamins, and incorporating the preservatives to ensure stability. The novel formulation of hair oil, enriched with Coconut Oil, Olive Oil, Potassium, Iron, Zinc, Capric Caprylic Tri-Glycerides (CCTG), Biotin, Minoxidil, Butylated Hydroxytoluene, and Methylparaben, represents a groundbreaking approach to holistic hair care. Each ingredient brings its unique set of benefits, collectively addressing various hair and scalp concerns. This innovative formulation not only nurtures the external aspects of hair but also targets internal factors, setting a new standard for comprehensive hair and scalp treatment.

No. of Pages : 12 No. of Claims : 4

(54) Title of the invention : WEARABLE DEVICE FOR DETERMINING ONE OR MORE SENSOR OUTPUTS BASED ON MULTIFUNCTIONAL MODES

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	:G06F3/01, G08B6/00 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)INDIAN INSTITUTE OF TECHNOLOGY KANPUR Address of Applicant :DEAN, RESEARCH & DEVELOPMENT, ROOM NUMBER 151, FACULTY BUILDING, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA Kanpur ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)SIDDHARTHA PANDA Address of Applicant :DEPARTMENT OF NCFlexE, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA KANPUR ----- 2)VISHWARAJ SRIVASTAVA Address of Applicant :DEPARTMENT OF SCDT, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA KANPUR -----

(57) Abstract :

ABSTRACT WEARABLE DEVICE FOR DETERMINING ONE OR MORE SENSOR OUTPUTS BASED ON MULTIFUNCTIONAL MODES The present invention discloses a wearable device for determining one or more sensor outputs based on multifunctional modes. The wearable device (100) comprises a housing (102), a real-time clock (RTC) unit (104), a colour-sensing unit (106), one or more tactile indicators (108), and a control unit (110). The wearable device (100) is configured to assist a user based on the multifunctional modes through vibrotactile haptics. The multifunctional modes associated with the wearable device (100) include a time-interpreting mode and a colour-identification mode. This immediate output mechanism aids the user in understanding a status of wearable device cues, enhancing user experience, and improving convenience for daily activities. FIG. 1A

No. of Pages : 24 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311085633 A

(19) INDIA

(22) Date of filing of Application :15/12/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : FUNGICIDAL COMPOSITION

(51) International classification :A01N37/50, A01N43/40, A01N43/653, A01N43/90, A01N47/24, A01P3/00
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention relates to a synergistic fungicidal composition comprising a dithiocarbamate fungicide and at least two systemic fungicides, process of preparation of composition and uses thereof.

No. of Pages : 31 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :18/12/2023

(21) Application No.202311086504 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : FORMULATION OF GEL FOR DENTAL CARE OF ADULTS

(51) International classification :A61K35/644, A61K36/82, A61K8/21, A61K8/24, A61K8/34, A61K8/55, A61K8/97, A61Q11/00
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :

The present invention discloses a novel formulation of gel for dental care of adults, comprising Potassium nitrate, Sodium monofluorophosphate, Camellia sinesis extracts, Propolis extract, Tetrasodium pyrophosphate and Menthol. The formulation is prepared by combining the aforementioned ingredients in specific proportions to achieve optimal efficacy. The formulation may also include suitable excipients, stabilizers, and thickeners to achieve the desired texture and stability. The described dental care gel formulation represents a novel and effective solution for addressing the unique oral care needs of adults. The combination of key ingredients provides comprehensive oral care with advantages including tooth sensitivity alleviation, decay prevention, tartar formation prevention, gum health promotion, antimicrobial properties and a pleasant user experience.

No. of Pages : 12 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311088161 A

(19) INDIA

(22) Date of filing of Application :22/12/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : COMESTIBLES PRESERVATION RECEPTACLE

(51) International classification :C08F220/18, C08J5/18,
C09D133/00, C09D5/18

(86) International Application
No :NA

Filing Date :NA

(87) International Publication
No : NA

(61) Patent of Addition to
Application Number :NA

Filing Date :NA

(62) Divisional to Application
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Filing Date :NA

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(57) Abstract :

The present disclosure provides a comestibles receptacle 100 that includes an inner layer 102 forming a compartment enclosure, a Phase Change Materials (PCM) layer 104 positioned around the inner layer 102, and an outer layer 108 positioned around the PCM layer 104 for controlling a thermal dissipation of the PCM layer 104.

No. of Pages : 21 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311090104 A

(19) INDIA

(22) Date of filing of Application :30/12/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : A METHOD OF PARBOILING PADDY BY USING ULTRASONIC AND OZONE TREATMENTS

(51) International classification :A23B0009080000, A01C0001000000, C01B0013110000, B27K0005000000, F26B0021000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention relates to the method of ultrasonic and ozone treatment of paddy. The method initiates with cleaning a desired amount of paddy in a container followed by segregating high quality grain and cracked grains, immature grains, discolored/fermented grains and damaged grains/ The segregated high quality grain are then soaked in a proportional amount of water and followed by giving non thermal treatment in soaking medium, giving ultrasonic treatment in soaking medium using an ultrasonic generator equipped with a probe transducer and giving gaseous ozone treatment in soaking medium by using ozone generator and followed by extraction paddy from soaking medium. The paddy is then steam in autoclaving and followed by drying in an oven at 24 degrees Celsius for 24 hours. The paddy is milled to extract parboiled rice after drying followed by packing for transporting and storage.

No. of Pages : 38 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411000191 A

(19) INDIA

(22) Date of filing of Application :02/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : OPTIMIZED POLYPYRROLE DOPING

(51) International classification :B82Y30/00, B82Y40/00, C01G29/00, H01G11/24, H01G11/26, H01G11/46, H01G11/48, H01G11/86 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Lovely Professional University Address of Applicant :Lovely Professional University Jalandhar Delhi GT Road Phagwara Punjab India-144411 Phagwara ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Aman Deep Acharya Address of Applicant :Lovely Professional University Jalandhar Delhi GT Road Phagwara Punjab India-144411 Phagwara ----- ----- 2)Yugesh Singh Thakur Address of Applicant :Lovely Professional University Jalandhar Delhi GT Road Phagwara Punjab India-144411 Phagwara ----- ----- 3)Bhawna Address of Applicant :Lovely Professional University Jalandhar Delhi GT Road Phagwara Punjab India-144411 Phagwara ----- -----

(57) Abstract :

This invention is a polypyrrole/bismuth oxychloride super capacitance cell and belong to electrochemical energy storage. The method is an optimized doping of polypyrrole in bismuth oxychloride incorporation of 5 wt.% PPy-BiOCl significantly enhances the electrochemical performance.

No. of Pages : 27 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202311086656 A

(19) INDIA

(22) Date of filing of Application :19/12/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : SKIN CARE COSMETIC COMPOSITION

(51) International classification :A61K 36/886, A61K 8/64, A61K 8/67, A61K 8/92, A61K 8/97, A61Q 19/00
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention discloses a novel skin care cosmetic composition for adults designed to function as skin whitening cream comprising Aloe Vera Gel, Donkey Milk Powder, Glycerin, Hyaluronic Acid , Xanthan Gum, Jojoba Oil, Shea Butter, Emulsifying Wax, Niacinamide (Vitamin B3), Alpha-Arbutin, Licorice Extract, Vitamin C (Ascorbic Acid), preservatives, fragrance oil and purified water in the specified proportions. The formulation is prepared by combining the aforementioned ingredients in specific proportions to achieve optimal efficacy. The formulation may also include suitable excipients, stabilizers, and thickeners to achieve the desired texture and stability. The synergistic combination of ingredients ensures a versatile formulation suitable for various skincare needs. The combination of these carefully selected ingredients in a skin whitening cream aims to deliver a comprehensive skincare solution, addressing moisturization, nourishment and the reduction of hyperpigmentation for a brighter and more even skin tone.

No. of Pages : 12 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :19/12/2023

(21) Application No.202311086671 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : TOPICAL PAIN RELIEF COMPOSITION

(51) International classification :A61K 36/28, A61K 36/324, A61K 36/53, A61K 36/61, A61K 36/886, A61K 36/9068, A61K31/196, A61K47/44
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

(71)Name of Applicant :
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Address of Applicant :Amloh Road, Mandi Gobindgarh, District - Fatehgarh Sahib, Punjab, India, P.I.N. – 147301 Mandi Gobindgarh -----
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(72)Name of Inventor :
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(57) Abstract :

The present invention discloses a novel topical pain relief composition comprising a synergistic blend of active ingredients for alleviating pain and inflammation associated with musculoskeletal conditions. The composition includes Diclofenac Diethylamine, Menthol, Camphor, Boswellia Serrata Extract, Arnica Montana Extract, Aloe Vera gel, Ginger extract, Eucalyptus oil, Lavender essential oil, Emu oil, purified water, Emulsifying Wax, Glycerin, Cetyl Alcohol, Phenoxyethanol, and Vitamin E. The composition demonstrates enhanced efficacy in providing rapid and sustained pain relief with reduced side effects. The combination of anti-inflammatory, analgesic, and soothing agents addresses various aspects of pain and inflammation associated with conditions such as frozen shoulder and sprains. The composition is applied topically, allowing for targeted delivery of the active agents to the affected area. The invention is characterized by its innovative combination of ingredients, each selected for its unique properties, resulting in a safe and effective pain relief formulation.

No. of Pages : 11 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411003008 A

(19) INDIA

(22) Date of filing of Application :16/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A NANO-CATALYTIC MEMBRANE REACTOR FOR HAZARDOUS DYE DEGRADATION

(51) International classification :B01J0035060000, B01J0019240000, B01D0067000000, B01D0071020000, B01D0071340000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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Name of Applicant : NA

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(57) Abstract :

The present invention relates to a nano-catalytic membrane reactor for hazardous dye degradation. The nano-catalytic membrane reactor has been prepared by embedding lamda-carageenan coated cuprous oxide nanocube catalyst into the PVDF membrane through phase-inversion membrane casting process. The synthesized catalytic membrane reactor comprises of excellent catalytic, antifouling, and antimicrobial efficiency which could efficiently degrade the hazardous water pollutant dyes. The catalytic membrane reactor could efficiently protect itself from fouling and bacteria contamination with self-cleansing properties. The catalytic membrane can efficiently work on a routine peristaltic pump based operational setup to remove/degrade hazardous textile dye wastes in a continuous flow manner in an in-situ fashion. Published with Figure 1

No. of Pages : 23 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411000623 A

(19) INDIA

(22) Date of filing of Application :03/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : IOT BASED AGRICULTURE MONITORING SYSTEMS

(51) International classification :G06N0003040000, G06N0020000000, G06N0003080000, G06T0007000000, G06K0009620000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr Sumit Rai Address of Applicant :Scientist-C, GBPNIHE, Kosi-Katarmal, Almora, Uttarakhand-263643 Almora ----- 2)Prof. Dr. Reena Singh 3)Prof. Dr. B.K.Sarkar 4)Mr. Pawan Kumar Singh Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr Sumit Rai Address of Applicant :Scientist-C, GBPNIHE, Kosi-Katarmal, Almora, Uttarakhand-263643 Almora ----- 2)Prof. Dr. Reena Singh Address of Applicant :Research Unit -Geh Research LLP, Office T A 1104, Chembur -400071, M West, Mumbai, MH, India. Mumbai ----- 3)Prof. Dr. B.K.Sarkar Address of Applicant :Research Unit -Geh Research LLP, Office T A 1104, Chembur -400071, M West, Mumbai, MH, India. Mumbai ----- 4)Mr. Pawan Kumar Singh Address of Applicant :Research Unit -Geh Research LLP, Office T A 1104, Chembur -400071, M West, Mumbai, MH, India. Mumbai city -----

(57) Abstract :

ABSTRACT Our Invention IOT Based Agriculture Monitoring Systems is a Due to the use of either traditional colour transformations or machine learning-based techniques, sensor-based agriculture monitoring systems have had little success in detecting or counting vegetables from agricultural fields. This research aims to provide an IoT-based smart agricultural monitoring system with several algorithms, including detection, quantification, maturity checking, and detection of contaminated crops, in order to get beyond these restrictions. In this research, we discuss Internet of Things (IoT) applications for smart agriculture monitoring systems. To identify and measure vegetables from the agricultural field, the CHT has been used. Vegetables with defects have also been found using colour thresholding and colour segmentation methods. Convolutional neural networks (CNNs), a machine learning technique, were employed to build and implement each algorithm. In order to determine the best approach for CNN's application in this agricultural monitoring system, a comparison between conventional methods and CNN has been simulated in MATLAB. The CNN is the best approach in this study work when compared to the conventional methods, outperforming the previously created algorithms with an accuracy of more than 90.9%.

No. of Pages : 9 No. of Claims : 6

(54) Title of the invention : A SYSTEM FOR OPTIMIZING COTTON YIELD AND QUALITY

(51) International classification	:G06Q0050020000, A01G0007000000, G01N0033240000, A61N0005100000, A01G0022000000	(71)Name of Applicant : 1)Dr. Dhanshree Bharat Jadhav Address of Applicant :Department of Agronomy, Block 57, 202, Cabin No. 29, Lovely Professional University Jalandhar-Delhi G.T. Road, Phagwara, Punjab-144411, India Jalandhar -----
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	Name of Applicant : NA Address of Applicant : NA
(61) Patent of Addition to Application Number	:NA	(72)Name of Inventor :
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(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The present invention generally relates to asystem for optimizing cotton yield and quality through a multifaceted approach. Soil analysis guides the implementation of a randomized block design, dividing the cotton cultivation area into a user defined gross plots. A customized crop treatment plan is then devised using decision-making techniques, incorporating options like jivamrut, cow dung slurry, vermiwash, compost, vermicompost, neem cake, and biomulching of sunhemp at specific intervals. Seeds are treated to prevent diseases. Biometric observations on selected plants provide insights into yield and root studies. Real-time monitoring adjusts the treatment plan based on crop quality, employing genetic analysis to identify superior varieties. Precision planting and tailored fertilization enhance growth, while advanced harvesting selectively gathers mature cotton bolls. This integrated method leverages technology for a comprehensive and dynamic approach to achieve optimal cotton cultivation results.

No. of Pages : 30 No. of Claims : 10

(54) Title of the invention : OPTIMIZING SOLAR PLATE EFFICIENCY THROUGH ADVANCED MATERIALS AND DESIGN

(51) International classification :F24S30/45, H01L31/06, H01L50/00, H02S20/32 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to :NA Application Number :NA Filing Date :NA (62) Divisional to Application :NA Number :NA Filing Date :NA		(71)Name of Applicant : 1)Manav Rachna International Institute of Research and Studies Address of Applicant :Manav Rachna International Institute of Research and Studies, Faridabad, India. Pin 121003 ----- 2)Dr. Ashwini Kumar Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Ashwini Kumar Address of Applicant :Associate Professor, Department of Mechanical Engineering, School of Engineering and Technology, Manav Rachna International Institute of Research and Studies, Faridabad, India. Pin 121003 ----- 2)Dr. Manoj Nayak Address of Applicant :Professor, Department of Mechanical Engineering, School of Engineering and Technology, Manav Rachna International Institute of Research and Studies, Faridabad, India. Pin 121003 ----- 3)Mr. Vinay Address of Applicant :Assistant Professor, Department of Mechanical Engineering, School of Engineering and Technology, Manav Rachna International Institute of Research and Studies, Faridabad, India. Pin 121003 ----- 4)Dr. Sunny Bhatia Address of Applicant :Assistant Professor, Department of Mechanical Engineering, School of Engineering and Technology, Manav Rachna International Institute of Research and Studies, Faridabad, India. Pin 121003 ----- 5)Mr. Yaman Hooda Address of Applicant :Assistant Professor, Department of Civil Engineering, School of Engineering and Technology, Manav Rachna International Institute of Research and Studies, Faridabad, India. Pin 121003 ----- 6)Dr. Saneh Lata Yadav Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, K. R. Mangalam University, Gurgaon, India. Pin 122103 -----

(57) Abstract :

[054] The proposed inventions encompass a range of groundbreaking solutions aimed at optimizing solar panel efficiency through advanced materials and innovative design. These innovations address the pressing global need for clean and sustainable energy sources, as traditional solar panels exhibit inherent limitations in energy conversion efficiency. Leveraging cutting-edge developments in materials science and engineering, the inventions offer a diverse set of strategies to enhance solar panel performance. Whether through the integration of advanced materials like perovskite solar cells and organic photovoltaics, the adoption of innovative designs such as bifacial panels and concentrating photovoltaics, or the implementation of precision solar tracking and energy management systems, these inventions collectively contribute to a more efficient and environmentally responsible energy future. Additionally, they align with global efforts to combat climate change, reduce greenhouse gas emissions, and promote a transition to renewable energy sources. Accompanied Drawing [FIGS. 1-2]

No. of Pages : 21 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :16/01/2024

(21) Application No.202411003111 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : DESIGN AND FABRICATION OF BIOMIMETIC SCAFFOLD FOR LIGAMENT TISSUE ENGINEERING

(51) International classification :A61F 2/08 , A61L 27/18, A61L 27/50, A61L 27/54, A61L27/22, A61L27/36 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)INDIAN INSTITUTE OF TECHNOLOGY KANPUR Address of Applicant :DEAN, RESEARCH & DEVELOPMENT, ROOM NUMBER 151, FACULTY BUILDING, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA KANPUR ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)DHIRENDRA S. KATTI Address of Applicant :DEPARTMENT OF BIOLOGICAL SCIENCES AND BIO ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA KANPUR ----- 2)SRIRAM M Address of Applicant :DEPARTMENT OF BIOLOGICAL SCIENCES AND BIO ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA KANPUR -----

(57) Abstract :

ABSTRACT DESIGN AND FABRICATION OF BIOMIMETIC SCAFFOLD FOR LIGAMENT TISSUE ENGINEERING The present invention provides a biomimetic scaffold for ligament tissue engineering for directing bi-directional cellular organization. In the present invention, the scaffold incorporates zone-specific anisotropic features, facilitating epiligament-like circumferential cell organization on its surface and ligament proper-like longitudinal cell organization in its core. Fabricated as a biphasic core-shell structure, the scaffold not only achieves ligament-mimetic cellular organization but also governs the bi-directional extracellular matrix (ECM) arrangement. The novel approach in the present invention promotes the regeneration of neo-tissue with properties mirroring native ligament structure and function. The present invention signifies a significant advancement in ligament tissue engineering, offering a versatile and effective solution for guiding cellular behaviour and tissue regeneration. FIG. 2

No. of Pages : 44 No. of Claims : 17

(54) Title of the invention : AUTOMATIC RUNOUT DETECTION IN CRICKET

(51) International classification :A63B0102200000, G06N0003080000, A63B0059550000, A63B0069000000, H04M0007000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Chitkara University Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ----- 2)Chitkara Innovation Incubator Foundation Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)SHRIVASTAV, Nikhil Address of Applicant :Research Scholar, Department of Electronics & Communication Engineering, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ----- 2)ARORA, Tripatjot Singh Address of Applicant :Department of CSE, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ----- 3)MADAN, Jaya Address of Applicant :Assistant Professor, Department of Electronics & Communication Engineering, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ----- 4)PANDEY, Rahul Address of Applicant :Assistant Professor, Department of Electronics & Communication Engineering, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

(57) Abstract :
The present embodiment pertains to a system and method for automatic runout detection in cricket. The system comprises a LIDAR-equipped camera (101) for capturing a live video stream of a cricket match. This stream is then stored in a database (102). A deep learning model (103) accesses the images from the database (102) and detects and outlines a batsman’s shoes and bat, determining the batsman’s position relative to the popping crease. The model (103) is trained to differentiate between situations where the wicket is hit and where it is not. Based on this, the system can declare if the batsman is Out or Not out. The database (102) is automatically updated periodically to enhance the accuracy of the deep learning model (103). This innovative approach minimizes human intervention and provides a precise and rapid assessment of runout scenarios in cricket.

No. of Pages : 19 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411003118 A

(19) INDIA

(22) Date of filing of Application :16/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN ANTIDIABETIC DRUG WITH IMPROVED SOLUBILITY AND A METHOD OF PREPARATION THEREOF

(51) International classification		:A61K31/192, A61K31/445, A61P3/10, C07D211/00, C08K5/3435	(71)Name of Applicant : 1)Chitkara University Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----
(86) International Application No	:NA		2)Chitkara Innovation Incubator Foundation
Filing Date	:NA		Name of Applicant : NA
(87) International Publication No	: NA		Address of Applicant : NA
(61) Patent of Addition to Application Number	:NA		(72)Name of Inventor :
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Filing Date	:NA		--
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			Address of Applicant :Punjab Technical University, IKGPTU, Jalandhar, Punjab - 144603, India. Jalandhar -----

(57) Abstract :

The present invention provides an antidiabetic drug with improved solubility and a method of preparation thereof. The antidiabetic drug involves a eutectic mixture of repaglinide and thiourea. The eutectic mixture of the repaglinide and the thiourea is prepared using a solvent drop assisted solid-state grinding method. The formation of the eutectic mixture between repaglinide and thiourea significantly improves the solubility of repaglinide. The method provided by the present invention is relatively simple and does not require complex equipment or extensive processing steps. By increasing the solubility of the repaglinide, the invention facilitates better drug delivery to the target site. With enhanced solubility, the invention may enable the use of lower dosages of the repaglinide while maintaining the desired therapeutic effect. The invention opens up possibilities for the development of solubility enhancement strategies for a wide range of pharmaceutical compounds, potentially benefiting the overall pharmaceutical industry.

No. of Pages : 35 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :17/01/2024

(21) Application No.202411003451 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A METHOD OF DEVELOPMENT OF MORINGA OLEIFERA LOADED GEL.

(51) International classification :A61Q0005000000, A61P0031100000, A61K0036185000, C08L0083040000, A61K0009060000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Prof. (Dr.) Pawan Kumar Jalwal Address of Applicant :Dean & Head, Faculty of Pharmaceutical Sciences, Baba Mastnath University, Rohtak ----- 2)Ms. Shailja 3)Dr. Bhagwati Devi 4)Prof. (Dr.) Sangita Saini 5)Dr. Renu Malik 6)Dr. Sonia Parashar 7)Mr. Manish Kumar Sharma 8)Ms. Radha Rani 9)Dr. Rimmy 10)Mattapathi Usha Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Prof. (Dr.) Pawan Kumar Jalwal Address of Applicant :Dean & Head, Faculty of Pharmaceutical Sciences, Baba Mastnath University, Rohtak ----- 2)Ms. Shailja Address of Applicant :Assistant Professor, Faculty of Pharmaceutical Sciences, Baba Mastnath University, Rohtak. ----- 3)Dr. Bhagwati Devi Address of Applicant :Assistant Professor, Faculty of Pharmaceutical Sciences, Baba Mastnath University, Rohtak ----- 4)Prof. (Dr.) Sangita Saini Address of Applicant :Professor and Principal, Faculty of Pharmaceutical Sciences, Baba Mastnath University, Rohtak ----- 5)Dr. Renu Malik Address of Applicant :Principal Department of Pharmacy (D. Pharm), SBMNU, Baba Mastnath University, Rohtak ----- 6)Dr. Sonia Parashar Address of Applicant :Assistant Professor, Faculty of Pharmaceutical Sciences, Baba Mastnath University, Rohtak ----- 7)Mr. Manish Kumar Sharma Address of Applicant :Research Scholar Department of Chemistry, Deenbandhu Chhotu Ram University of Science and technology, Murthal, Sonapat, Haryana ----- 8)Ms. Radha Rani Address of Applicant :Assistant Professor, Faculty of Pharmaceutical Sciences, Baba Mastnath University, Rohtak ----- 9)Dr. Rimmy Address of Applicant :Assistant Professor, Faculty of Pharmaceutical Sciences, Baba Mastnath University, Rohtak ----- 10)Mattapathi Usha Address of Applicant :Research Scholar, Faculty of Pharmaceutical Sciences, Baba Mastnath University, Rohtak -----

(57) Abstract :

The invention relates to the method of development of Moringa Oleifera Loaded Gel from the Moringa Oleifera leaves extracted in ethanol solution than aqueous solution for better phytochemical properties and for better yield. However, the Anti-microbial testing of Moringa Oleifera loaded gel was done by using the Malassazia Furfur with desired Mean zone of inhibition for the antidandruff activity. The Drug release rate for the moringa oleifera loaded gel formulation for F1 to F5 ranging from 75.21 to 90.73% for 8 hrs, wherein the antifungal testing was performed by using the disk diffusion method in the organism Candida albicans with a specific correlation coefficient (R2), and tested for the stability for 3 months for F5, with no considerable changes from proven limits like appearance, pH, extrudability, spreadability, gel strength, viscosity, and with noted antifungal action at both room temperature and at 40°C.

No. of Pages : 22 No. of Claims : 7

(54) Title of the invention : AUTOMATED ATTENDANCE MARKING SYSTEM FOR EDUCATIONAL INSTITUTE

(51) International classification (86) International Application No (87) International Publication No (61) Patent of Addition to Application Number (62) Divisional to Application Number :G06Q0050200000, G07C0001100000, G06K0019070000, G11B0005550000, G06K0019077000 :NA :NA : NA :NA :NA :NA :NA		(71)Name of Applicant : 1)Ajay Kumar Garg Engineering College Address of Applicant :27th Km Milestone, Delhi-Hapur Bypass Road, Adhyatmik Nagar, Ghaziabad-201009, Uttar Pradesh, India. Ghaziabad -- ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Rahul Sharma Address of Applicant :Head of Department (HOD), Department of Information Technology, Ajay Kumar Garg Engineering College, 27th Km Milestone, Delhi-Hapur Bypass Road, Adhyatmik Nagar, Ghaziabad-201009, Uttar Pradesh, India. Ghaziabad ----- 2)Dr. Rashmi Sharma Address of Applicant :Associate Professor, Department of Information Technology, Ajay Kumar Garg Engineering College, 27th Km Milestone, Delhi-Hapur Bypass Road, Adhyatmik Nagar, Ghaziabad-201009, Uttar Pradesh, India. Ghaziabad ----- 3)Dipendra Raghav Address of Applicant :Department of Information Technology, Ajay Kumar Garg Engineering College, 27th Km Milestone, Delhi-Hapur Bypass Road, Adhyatmik Nagar, Ghaziabad-201009, Uttar Pradesh, India. Ghaziabad ----- 4)Fazal Ahmad Address of Applicant :Department of Information Technology, Ajay Kumar Garg Engineering College, 27th Km Milestone, Delhi-Hapur Bypass Road, Adhyatmik Nagar, Ghaziabad-201009, Uttar Pradesh, India. Ghaziabad ----- 5)Gaurav Verma Address of Applicant :Department of Information Technology, Ajay Kumar Garg Engineering College, 27th Km Milestone, Delhi-Hapur Bypass Road, Adhyatmik Nagar, Ghaziabad-201009, Uttar Pradesh, India. Ghaziabad ----- 6)Hariom Singh Address of Applicant :Department of Information Technology, Ajay Kumar Garg Engineering College, 27th Km Milestone, Delhi-Hapur Bypass Road, Adhyatmik Nagar, Ghaziabad-201009, Uttar Pradesh, India. Ghaziabad -----

(57) Abstract :
An automated attendance marking system for educational institute, comprises of a rectangular body 1 associated with the system, a slot 2 carved on the body 1 for placing a photograph, an RFID (Radio Frequency Identification) tag 3 installed on the body 1 for detecting the presence of student within the premises of educational institute, an LED (Light Emitting Diode) dot-matrix display 4 installed on the body for displaying the time table and corresponding classroom number, a fingerprint sensor 5 fabricated on the body 1 for marking the attendance, and a push-button 6 crafted on the body 1 pressed by the student in case of emergency.

No. of Pages : 16 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411003454 A

(19) INDIA

(22) Date of filing of Application :17/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : CLOTH BUYING ASSISTIVE DEVICE

(51) International classification :B25J18/02, G03H1/22, G06F3/0488,
G06Q30/06, G06T17/00
(86) International Application :NA
No :NA
Filing Date :NA
(87) International Publication : NA
No :NA
(61) Patent of Addition to :NA
Application Number :NA
Filing Date :NA
(62) Divisional to Application :NA
Number :NA
Filing Date :NA

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(57) Abstract :

A cloth buying assistive device, comprising a cuboidal hollow body 1 having a first section 2 to accommodate a user and second section 3 to store different type of clothes, a touch enabled screen 5 accessed by user for selecting one clothes to be tried, an X-ray based imaging unit 6 detects body dimensions of user, a robotic arm 7 grips and positions user-selected cloth on a conveyer 8 to translate cloth on a platform 9 and multiple telescopically operated grippers 10 stretches cloth, and an artificial intelligence-based imaging unit 11 detects shape and dimensions of stretched cloth and accordingly a virtual 3-D (Three-Dimensional) model of user in cloth is prepared and projected via a holographic projection unit 12 for allowing user to determine suitability of clothes.

No. of Pages : 19 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411003455 A

(19) INDIA

(22) Date of filing of Application :17/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : ADAPTABLE VEHICLE ACCIDENT PREVENTION SYSTEM

(51) International classification :B60R1/00, B60S9/12 , B60W50/14, G06V20/56, G06V20/58
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

An adaptable vehicle accident prevention system, comprises of a body 1 to be installed on front and rear portion of a vehicle including four-wheeler and heavy vehicle installed with a sensing module 2 to detect presence of pothole, a OLED-based display panel 3 to display images which enables a driver to follow the road, a frame 4 configured with a pair of hydraulic actuators 5 to elevate the potholes, an angle sensor to detect angle of elevated wheel, a motorized hinge joint 6 integrated in between actuators 5 and a horizontal bar 7 arranged in frame 4 to move the four-wheeler out of the pothole, a cylindrical member 8 installed with an electronically controlled nozzle 9 to dispense gravel within the potholes for elevating the surface and allowing heavy vehicle to move across.

No. of Pages : 19 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :16/01/2024

(21) Application No.202411003127 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : HVAC CONTROL SYSTEM AND METHOD THEREOF

(51) International classification :B60H0001000000, F24F0011300000, G06N0003080000, G06K0009620000, G05D0001020000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present disclosure relates to an HVAC control system and method. It involves: acquiring (202), through an image acquisition unit (102), thermal images of a Region of Interest (RoI); receiving (204), at a controller (106) comprising a learning engine (108), the acquired thermal images of the RoI from the image acquisition unit (102); detecting (206), at the controller (106), presence of one or more human entities and position of corresponding human entities, by using deep learning to process the received thermal images; and regulating (208), at the controller (106), parameters of an HVAC module (104) to control air flow in the RoI, based on the detected human entities and respective positions.

No. of Pages : 22 No. of Claims : 10

(54) Title of the invention : A METHOD FOR PREPARING URSOLIC ACID-LOADED DENDRIMERS FOR THE TARGETED DELIVERY OF ALZHEIMER'S DISEASE

(51) International classification :A61K47/48, A61K51/06, A61K9/00, A61P25/28, B82Y5/00, C08G73/02
 (86) International Application No :NA
 Filing Date :NA
 (87) International Publication No : NA
 (61) Patent of Addition to Application Number :NA
 Filing Date :NA
 (62) Divisional to Application Number :NA
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(57) Abstract :

The method comprises weighing pure drug powder of ursolic acid(UA) and dissolving in ethanol, resulting in a light yellowish-colored solution; measuring PAMAM G0 dendrimer using a micropipette in a separate beaker and dissolving in deionized water, generating a transparent-colored solution; combining the 5-15 wt. % of ursolic acid-ethanol solution with 5-15 wt. % of PAMAM G0 dendrimer-deionized water solution, resulting in a creamish-colored mixture; stirring the mixture overnight for 24 hours in darkness and transferring the prepared mixture into a round-bottom flask; removing ethanol from the mixture and removing the remaining deionized water thereby drying remaining traces under vacuum to eliminate the solvent; adding deionized water to the traces, and stirring the preparation for an additional 12 hours to extract the UA-PAMAM complex; filtering the preparation through a 0.22 µm cellulose acetate membrane filter; and lyophilizing the filtrate to obtain the UA-loaded dendrimer in the form of a white powder.

No. of Pages : 31 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411003164 A

(19) INDIA

(22) Date of filing of Application :16/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SMART CARD-BASED DEVICE FOR INTELLIGENT CONTROL OF A VEHICLE AND A METHOD THEREOF

(51) International classification :G06F0021620000, G06Q0020400000, B60R0025040000, B60R0025230000, G06Q0020340000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

A smart card-based device (100) for intelligent control of a vehicle (120) is disclosed. A receiving module (126) receives user verification information from a user via a smart card. A verification module (128) verifies the user verification information with a digital database (138) and verifies the user using a plurality of physical features of a plurality of legal documents via a scanner. A control module (130) triggers an ignition system. A tracking module (132) tracks a movement of the vehicle for documenting a plurality of geographical movements of the vehicle and store it using a tamper-proof technique. A display module (134) allows the user to view the user verification information and data. A notification module (136) notifies an owner about the user access, notify a live location to authorized personnel, and generates a notification to the owner upon occurrence of an accident, thereby ensuring verification and security of the vehicle. FIG. 1

No. of Pages : 32 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :16/01/2024

(21) Application No.202411003187 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : METHOD AND SYSTEM FOR BLOCKCHAIN-BASED PRODUCT VALIDATION

(51) International classification :G06Q0030000000, H04L0009320000, G06Q0030060000, H04L0009060000, H04W0012120000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

This invention presents a groundbreaking solution in the form of a blockchain-based product authentication system designed to combat counterfeiting. The abstract encapsulates a method that not only ensures tamper-resistant verification but also enhances supply chain transparency, providing a user-friendly interface for consumers to confidently authenticate product legitimacy in real-time. For years, there has been an issue with fake items being sold to unwary buyers, costing both consumers and real businesses a great deal of money. Customers now find it more challenging to distinguish between real and counterfeit goods due to the growth of e-commerce and online marketplaces. Blockchain technology can be used to solve this problem by developing a reliable and secure system for product authentication. Businesses may guarantee that customers can buy genuine products with trust by utilizing the transparency and immutability of the blockchain. A visible and auditable trail of all product operations will be provided by this software system, which will log all supply chain transactions, product transfers, and ownership changes on the blockchain network. Customers will be able to scan the QR code to confirm its validity through the system, and only those with permission will be able to view and edit product data stored on the blockchain. All product data and transaction privacy and security will be guaranteed by the system, which complies with all applicable laws and regulations. The overall goal of this software solution is to reduce the issue of fake goods and rebuild consumer and company confidence.

No. of Pages : 26 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411003456 A

(19) INDIA

(22) Date of filing of Application :17/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AUTOMATED CROP PROTECTION DEVICE

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(51) International classification	:A01M29/00, B25J18/02, G01D21/00	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

An automated crop protection device, comprises of a frame developed to be positioned on a ground surface of an agricultural field, an artificial intelligence-based imaging unit 1 to determine the height of crops cultivated on the field, a pair of telescopically operated rods 2 for positioning a horizontal bar 3 integrated in the frame, plurality of wheels 4 for moving the frame, a body 5 mounted on the bar 3 and integrated with a color sensor for detecting the presence of pest infection on the crops, an electronically controlled nozzle 6 integrated on a multi-sectioned chamber 7 for dispensing an anti-septic solution, an electronically controlled spout 8 to dispense the suitable fertilizer on the soil, and a motorized roller 9 to rotate for unwrapping a sheet 10 coiled on the roller 9 to protect the crops from invasion of the birds.

No. of Pages : 17 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :17/01/2024

(21) Application No.202411003457 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : ADAPTABLE IOT-BASED TRAFFIC REGULATION SYSTEM

(51) International classification :G08G0001096500, G08B0003100000, G08G0001087000, G08G0001070000, G01S0019170000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

An adaptable IOT-based traffic regulation system, comprising pluralities of bodies 1 engaged on traffic signal posts of different localities, an artificial intelligence-based imaging unit 3 monitors pattern of traffic, a proximity sensor monitors presence and distance of emergency vehicles and accordingly a time schedule for different traffic signals is evaluated, a computing unit is accessed by a concerned authority for receiving update regarding evaluated time, an LDR determines visibility in surrounding, a holographic projector 4 projects a virtual line depicting lane dividers on roads, a color sensor synced with imaging unit 3 for monitoring any incidence of accident in localities, accordingly an alert is sent to a nearest emergency authority for initiating rescue process, an infrared sensor detects presence of slippery substances on roads, and a speaker 8 produces audio alert for passing vehicles to drive carefully on road.

No. of Pages : 19 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :17/01/2024

(21) Application No.202411003458 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : AUTOMATED QUEUE MANAGEMENT DEVICE

(51) International classification :F24S0040200000, H04B0001382700, B60R0025250000, A45C0013260000, F16M0011420000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

An automated queue management device, comprises of a frame 1 having a pair of first extendable rods 2 positioned on a ground surface installed with telescopically operated bars 12 for imparting height to frame 1 for supporting a pair of second extendable rods 3, a QR code scanner 4 accessed by users for entering into a row, a motorized gate 5 for partitioning row, an imaging unit 6 for detecting positioning of user inside sections of row, a timer for monitoring time duration of restricting the user in section, an ultrasonic sensor 11 for detecting actions of users in the queue, a speaker 7 for notifying the users to maintain decorum, a sensing module 8 for monitoring presence of harsh sunlight or rain in the surrounding, multiple canopies 9 for establishing a covering on the frame 1, and multiple extendable brushes 10 for cleaning dirt/debris littered on the surface.

No. of Pages : 17 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :18/01/2024

(21) Application No.202411003473 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : METABOLIC RAT CAGE

(51) International classification :A01M23/16
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention relates to a housing of animals for experiments, in particular to an improved metabolism cage for laboratory rats. The metabolism cage comprises a rat cage (1) of which the lateral surface is provided with a food accommodating container (4) and a water accommodating container (3) made of metal grid bars, a conical funnel (11), an excrement containing disc and a urine accommodating container (12), and is characterized in that the excrement containing disc, the conical funnel (11) and the urine accommodating container (12) are arranged under the bottom of the rat cage (1) from top to bottom; and the excrement containing disc is a first meshed sheet (9) of which the pore diameter is smaller than grain sizes of excrement of laboratory rats. The metabolism cage is good in effect of separating the excrement from urine and the urine is not sprinkled outside the urine-accommodating container.

No. of Pages : 13 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :17/01/2024

(21) Application No.202411003196 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN INTELLIGENT WATER MANAGEMENT SYSTEM WITH AUTOMATED PUMP CONTROL

(51) International classification :E03B1/00, G01F23/18, G01F23/284, G01F23/296, G05B11/01, G05D9/12, G08C17/02

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

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(57) Abstract :

The Intelligent Water Management System with Automated Pump Control reforms water distribution by integrating advanced sensors, a central control unit, and automated pumps with a communication module. This system optimizes water usage, reduces environmental impact, and adapts to diverse settings. Real-time sensor data informs intelligent decision-making, while automated pumps enhance efficiency. A user-friendly interface enables remote monitoring, notifications, and active participation in water conservation. This invention presents a comprehensive solution for responsive, sustainable, and user-engaged water management on a global scale.

No. of Pages : 24 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411003219 A

(19) INDIA

(22) Date of filing of Application :17/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : KNEE AND ANKLE CONTINUOUS PASSIVE MOTION (CPM) MACHINE

(51) International classification :A61F5/00, A61H1/00,
A61H1/02, A63B23/08
(86) International Application No:NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to :NA
Application Number :NA
Filing Date :NA
(62) Divisional to Application :NA
Number :NA
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(57) Abstract :

The present invention relates to a medical devices and rehabilitation equipment. Specifically, it falls within the domain of continuous passive motion (CPM) machines designed for knee and ankle rehabilitation following surgery or stiffness. The knee and ankle continuous passive motion (CPM) machine, includes a joint support structure with extendable arms designed for accommodating knee and ankle joints simultaneously, a controllable ball/lead screw mechanism integrated into the joint support structure, facilitating controlled and automated movement, a stepper motor and driver system connected to the ball/lead screw, enabling precise control of joint motion parameters, a control unit comprising an Arduino or Raspberry Pi microcontroller, facilitating user interface and customizable settings, a display unit for presenting feedback and operating parameters to the user, and a keypad or touchpad for user input, allowing adjustments to speed, range, and duration of joint movement.

No. of Pages : 15 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :17/01/2024

(21) Application No.202411003222 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : HERBAL HAIR OIL FORMULATION FOR HAIR GROWTH AND ALOPECIA AND PREPARATION THEREOF

(51) International classification :A61Q0007000000, A61K0008978900, A61K0036840000, A61P0017140000, A61K0008979400

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention provides a topical herbal hair formulation for preventing hair loss or promoting hair growth comprising a mixture of extracts of N.jatamansi, C.asiatica, E.alba, Hibiscus rosa sinensis, T.cordifolia and Coconut oil; wherein the weight of extract of N.jatamansi ranges from 2-3 gms, C.asiatica 2-3 gms, E.alba 2-3 gms, Hibiscus rosa sinensis 2-3 gms, T.cordifolia 2-3 gms and Coconut Oil to volume makeup upto 100ml. The process for the preparation of topical herbal hair formulation for hair loss or promoting hair growth composition, comprising, preparing aqueous and alcoholic extracts of N.jatamansi, C.asiatica, E.alba, Hibiscus rosa sinensis, T.cordifolia; keeping the extracts on hot plate at 60°C-80°C for 30 minutes; combining the extracts and coconut oil in an effective amount to prepare the hair oil. The process for the preparation of plant extract from N.jatamansi, comprising of collecting and identifying the roots and rhizomes of N. jatamansi; drying the plant material in air and powdering coarsely; extracting the powder with ethyl alcohol (95%) and water in a Soxhlet apparatus for 72 hours separately; drying the extracts under reduced pressure to obtaining a dark brownish colored residue of alcoholic and aqueous extracts of Nardostachys jatamansi. The topical herbal hair formulation, wherein said herbal hair growth formulation is in the form of oil. The topical herbal hair formulation, wherein said plants extracts are alcoholic and aqueous. The topical herbal hair formulation, wherein said herbal hair growth formulation is useful for treating alopecia and promoting hair growth.

No. of Pages : 22 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :18/01/2024

(21) Application No.202411003478 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD FOR BLOOD INFECTION DETECTION USING FUZZY BASED SYSTEM

(51) International classification :A61B5/145, G06N20/00, G06N3/00, G06N3/043, G06N3/08, G16H10/60, G16H50/20, G16H50/30

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The focus of the present invention is to detect and identify the blood diseases. An automated system that examines all potential diseases using patient information and data is needed to deal with unpredictable circumstances. Having an automated and intelligent system that evaluates the reports and counsels' doctors in any other area or nation is a demand of the time. The same solutions can be identified by the proposed system. To apply the adaptive neuro-fuzzy inference system (ANFIS) and related techniques to predict chronic diseases early, the authors have gone through various existing models and case studies on diabetics and other patients. The proposed approach, called S-ANFIS which is using the hybrid approach, is based on ANFIS and includes content curation. As a result, the suggested model outperforms other approaches in terms of disease prediction accuracy, with a score of 88.6%. The details are shown in figures of the present enclosure.

No. of Pages : 24 No. of Claims : 4

(54) Title of the invention : METHOD FOR ENHANCING CYBERSECURITY WITH BLOCKCHAIN-ENABLED INCIDENT RESPONSE FOR MALWARE DETECTION

(51) International classification :H04L0009320000, G06F0021560000, H04L0009080000, G06F0021550000, H04L0009060000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)The Northcap University Address of Applicant :Huda, Sector 23A, Gurugram, Haryana-122017, India. Gurugram ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Preeti Sharma Address of Applicant :Assistant Professor, CSE, Chitkara University, Rajpura Punjab 140401, India Rajpura ----- ----- 2)Dr. Monika Lamba Address of Applicant :Assistant Professor, CSE, The NorthCap University, Huda, Sector 23A, Gurugram, Haryana -122017, India Gurugram ----- 3)Ms. Sania Address of Applicant :Student of Department of CSE, The NorthCap University, Huda, Sector 23A, Gurugram, Haryana -122017, India Gurugram -----

(57) Abstract :
Accordingly, embodiments herein disclose a method for enhancing cybersecurity with blockchain-enabled incident response for malware detection. The method involves collecting data from various sources, and analyzing the collected data to identify any potential security threats. Further, the proposed method may involve facilitating the efficient and secure sharing of data using a blockchain platform. The blockchain platform allows for the secure and decentralized sharing of data among different security systems and stakeholders, ensuring that all relevant parties have access to the necessary information in real-time. Further, the proposed method may involve enabling the creation of smart contracts, which can be used to automate incident response processes using the blockchain platform, and enabling the secure and decentralized sharing of threat intelligence and malware signatures and other related data among different security systems and stakeholders, ensuring that all relevant parties have access to the necessary information in real-time using the blockchain platform.

No. of Pages : 10 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411003511 A

(19) INDIA

(22) Date of filing of Application :18/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : METHYL RED AN AZO DYE DECOLORIZATION AND DEGRADATION BY NEWLY ISOLATED STRAIN ENTEROBACTER ASBURIAE STRAIN JCM6051

(51) International classification :C12N0001200000, C12R0001010000, A61P0001000000, C12R0001125000, C12R0001225000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

The present invention relates to newly isolated strain Enterobacter asburiae strain JCM6051. The strain used in present work decolorized methyl red. Primary screening of methyl red decolorizing bacteria of isolated strains is done by tube method. Decolorization percentage on the basis of decolorization assay of screened isolates for methyl red is calculated. Molecular identification of selected microorganisms is carried out. The bacterium which has the potential to degrade the methyl red azo dye was identified. MRD17 were identified as Enterobacter asburiae strain JCM6051, based on 16S rRNA sequencing and the 16S rRNA sequence of the strain was also deposited at NCBI GenBank with accession number MT539179.

No. of Pages : 15 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411002027 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SUSTAINABLE NEVER CHANGEABLE STUDENT'S BEHAVIOUR AND MARKS PREDICTION THROUGH SOCIAL NETWORK ANALYSIS AND TIME SERIES ANALYSIS OF EDUCATIONAL DATA MINING AND BLOCK CHAIN

(51) International classification :G06Q0050200000, G09B0007020000, G06F0016280000, G09B0019000000, A47B0041000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Dheeraj kumar singh Address of Applicant :School of technology, department of computer science, doon university, dehradun, Uttarakhand,india - 248001 ----- 2)Dr Narendra kumar 3)Rajwinder kaur Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dheeraj kumar singh Address of Applicant :School of technology, department of computer science, doon university, dehradun, Uttarakhand,india - 248001 ----- 2)Dr Narendra kumar Address of Applicant :School of technology department of computer science doon university dehradun, uttarakhand ----- ----- 3)Rajwinder kaur Address of Applicant :School of technology Department of computer science Doon university,dehradun, uttarakhand Dehradun -----

(57) Abstract :

Student's performance prediction is still a complex process across the world. By identifying the pattern of student's previous studies some analysis can become possible today, this phenomenon particularly become possible by the Educational Data Mining. Education Data mining tools and techniques such as classification and clustering has played a great role in prediction of student's performance. Maximum focus of the study till now limited to student's marks prediction. Student's behavior prediction stills a challenge for all researchers across the world, even sustainability of the behavior prediction and maintaining this is a great challenge till now. In this research by exploring the social network analysis through sociometric and sociodiagram techniques and combining time series analysis in it can give better sustainable prediction of behavior and marks. In this, data of student must be recorded through using block chain from students kindergarten education to K1 to K12 schooling, than student's graduation (K13 to K15, K16), post graduation (K16 to K17) and finally student's doctoral program if have done any.

No. of Pages : 31 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411002379 A

(19) INDIA

(22) Date of filing of Application :12/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AI-GUIDED, SOLAR-POWERED WELDING MACHINE WITH ADVANCED FUME FILTRATION AND REAL-TIME AIR QUALITY MONITORING.

(51) International classification :G08C0017020000, H02S0040380000, G06N0020000000, H04N0021410000, F21S0009030000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr. Sant Ram Chauhan Address of Applicant :Associate Professor, Department of Mechanical Engineering National Institute of Technology Hamirpur, Himachal Pradesh, India, 177005. ----- 2)Dr. Kali Dass 3)Dr. Sunil Setia 4)Mr. Saurabh Thakur 5)Miss. Jyotsna Chauhan Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Sant Ram Chauhan Address of Applicant :Associate Professor, Department of Mechanical Engineering National Institute of Technology Hamirpur, Himachal Pradesh, India, 177005. ----- 2)Dr. Kali Dass Address of Applicant :Assistant Professor, Department of Mechanical Engineering National Institute of Technology Hamirpur, Himachal Pradesh, India, 177005. ----- 3)Dr. Sunil Setia Address of Applicant :Research Scholar, Department of Mechanical Engineering, National Institute of Technology Hamirpur, Himachal Pradesh, India, 177005. ----- 4)Mr. Saurabh Thakur Address of Applicant :Research Scholar, Department of Mechanical Engineering, National Institute of Technology Hamirpur, Himachal Pradesh, India, 177005. ----- 5)Miss. Jyotsna Chauhan Address of Applicant :B.E. Computer Science Engineering (with specialisation on Artifical Intelligence Machine Learning) Chandigarh University, Punjab, 148413 -----

(57) Abstract :

ABSTRACT: This invention describes AI-Guided, Solar-Powered Welding Machine with Advanced Fume Filtration and Real-time Air Quality Monitoring. Traditional welding methods pose challenges, demanding expertise and lacking environmental considerations. The Device addresses these issues with a sleek design housing advanced features. Its matte-black chassis with blue trims encases a solar panel array, ensuring energy efficiency. The intelligent AI module, trained on extensive datasets, makes real-time decisions for optimal welding parameters. High-efficiency solar panels power the machine and charge its battery, enabling uninterrupted operations. The multi-layered filtration unit ensures air quality by capturing and neutralizing welding fumes. With IoT connectivity, the machine streamlines processes by wirelessly communicating with nearby smart devices. User interaction is facilitated through a vibrant touchscreen, providing insights and controls. The AI guides the welding process, and real-time air quality updates are displayed. Post-task, users receive insights and suggestions, showcasing the integrated AI and IoT functionalities.

No. of Pages : 27 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :19/01/2024

(21) Application No.202411003746 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A FILM FOR FOOD PACKAGING

(51) International classification :C08J0005180000, B65D0081340000, D21H0027100000, B65D0065400000, C09D0011322000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)PRADIP KUMAR DUTTA Address of Applicant :CHEMISTRY DEPARTMENT, C/O-MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY ALLAHABAD, PRAYAGRAJ-211004, U.P., INDIA ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)PRADIP KUMAR DUTTA Address of Applicant :CHEMISTRY DEPARTMENT, C/O-MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY ALLAHABAD, PRAYAGRAJ-211004, U.P., INDIA ----- 2)SRASTI YADAV Address of Applicant :CHEMISTRY DEPARTMENT, C/O-MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY ALLAHABAD, PRAYAGRAJ-211004, U.P., INDIA ----- 3)GOPAL KRISHNA MEHROTRA Address of Applicant :CHEMISTRY DEPARTMENT, C/O-MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY ALLAHABAD, PRAYAGRAJ-211004, U.P., INDIA -----

(57) Abstract :

ABSTRACT TITLE: A FILM FOR FOOD PACKAGING This invention relates to a film for food packaging product comprising chitosan, polyvinyl alcohol (PYA) and Nickel nanoparticles.

No. of Pages : 6 No. of Claims : 2

(54) Title of the invention : EFFICIENT INDUCTION BASED HEATING DEVICE FOR ROOM COMFORT

(51) International classification :F24D13/00, H05B1/00, H05B6/02, H05B6/10, H05B6/36

(86) International Application No:NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
Efficient Induction Based Heating Device for Room Comfort The present invention is related to a novel room heating appliance, the Efficient Induction Based Heating Device for Room Comfort designed to revolutionize the room heating experience. Traditional heating systems often face challenges in achieving a balance between effective warming and energy conservation. In response to this, the proposed device leverages induction technology to efficiently generate and distribute heat within enclosed spaces. The device incorporates advanced materials and engineering principles to ensure rapid and uniform heating, addressing the shortcomings of conventional method. Employing electromagnetic induction, this device eliminates the need for direct contact between the heating element and the surrounding air, resulting in a more responsive and energy-efficient heating process. The presented invention incorporates eight separate induction coils strategically positioned within the device, each controlled independently by its control circuit providing precise control over the heating process. These induction coils heat up their own corresponding steel plates attached to aluminium heatsink with fins. Four DC blower fans push air through the fins and hot air exhausted from the heatsink fins from the device heating the environment. Electromagnetic induction enables rapid heating, reducing waiting times and energy consumption. To bolster safety of the device, two advanced cooling fans are placed over the induction coils dissipating excess heat from the coils, preventing overheating accidents and simultaneously adding to the heating of the surrounding air. Moreover, the electronic control system offers precise temperature management and customizable settings using a touch panel control system. The microcontroller present within the touch panel control circuit is responsible for sending the control signals to the blower and induction coil circuit, simultaneously receiving temperature data of the environment from an analogue temperature sensor. This innovation leads to closed loop-controlled heating of the room with precise control over the room temperature. The device also has four different power modes. Figure to be published with Abstract: Figure 10

No. of Pages : 22 No. of Claims : 11

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411003236 A

(19) INDIA

(22) Date of filing of Application :17/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : CHEMICAL AND THERMAL CHANGES DURING PREPARATION OF VERMICOMPOST FROM DIFFERENT AGRI-WASTE USING EISENIA FOETIDA

(51) International classification :C05F0017050000, C05F0003000000, A01K0001010000, A61K0035240000, C05F0017400000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Dr Deo Kumar Address of Applicant :Assistant Professor, Department of Soil Science & Agricultural Chemistry, College of Agriculture, Banda University of Agriculture & Technology, Banda, Uttar Pradesh, India - 210001 ----- 2)Dr G. S. Panwar 3)Dr Arbind Kumar Gupta 4)Dr. Gambhir Singh 5)Dr. Anuj Yadav 6)Dr. Amit Kumar Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr Deo Kumar Address of Applicant :Assistant Professor, Department of Soil Science & Agricultural Chemistry, College of Agriculture, Banda University of Agriculture & Technology, Banda, Uttar Pradesh, India - 210001 ----- 2)Dr G. S. Panwar Address of Applicant :Professor, Department of Agronomy, College of Agriculture, Banda University of Agriculture & Technology, Banda, Uttar Pradesh, India - 210001 ----- 3)Dr Arbind Kumar Gupta Address of Applicant :Assistant Professor, Department of Natural Resource Management (Soil Science), College of Forestry, Banda University of Agriculture & Technology, Banda, Uttar Pradesh, India - 210001 ----- 4)Dr. Gambhir Singh Address of Applicant :Assistant Professor, Department of Agriculture Keral Verma Subharti College of Science Swami Vivekanand Subharti University, Meerut, Uttar Pradesh, India ----- 5)Dr. Anuj Yadav Address of Applicant :Assistant Professor, Department of Agriculture Keral Verma Subharti College of Science Swami Vivekanand Subharti University, Meerut, Uttar Pradesh, India ----- 6)Dr. Amit Kumar Address of Applicant :Associate Professor, Department of Agriculture Keral Verma Subharti College of Science Swami Vivekanand Subharti University, Meerut, Uttar Pradesh, India -----

(57) Abstract :

The present invention relates to provide chemical and thermal changes during preparation of vermicompost from different agri-waste using Eisenia foetida. Vermicompost is the best organic manure for replacement of chemical fertilizers and procuring better prices for the organic produce. The present invention related to production of vermicompost through different agricultural wastes in definite ratio. It is prepared using Eisenia foetida with five agri-waste i.e. cattle dung (150 kg), Pressmud + cattle dung (100+50 kg), Moong straw + cattle dung(100+50 kg), Paddy straw + cattle dung(100+50kg) and Wheat straw + cattle dung(100+50 kg). The harvested vermicompost had significant nutrient content and thermal changes during composting. The results showed that approximately 32-39% of raw material was reduced during Vermicompost production from different raw materials. The maximum recovery (%) was found in Wheat straw + cattle dung(100+50 kg) (68.13) followed by Paddy straw + cattle dung(100+50kg) (67.22), Moong straw + cattle dung(100+50 kg) (65.80), Pressmud + cattle dung (65.79) and cattle dung (64.24). The maximum days are counted for the preparation of vermicompost in Wheat straw + cattle dung(100+50 kg) (83 days) while minimum in cattle dung (63). Thus, this technique is an excellent approach to reduce environmental burden of these wastes.

No. of Pages : 11 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411003237 A

(19) INDIA

(22) Date of filing of Application :17/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : NEXT-GEN SOCIETY THROUGH ARTIFICIAL INTELLIGENCE, BLOCKCHAIN, AND IOT-BASED CLOUD APPLICATIONS SECURITY

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(51) International classification	:H04L0009320000, H04L0009060000, H04L0009080000, H04L0067306000, G06N0020000000	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The present invention relates to provide a next-gen society through artificial intelligence, blockchain, and IoT-based cloud applications security. Pioneering a paradigm in cloud applications security, the invention employs IoT devices as cyber threat vanguards through a decentralized cloud fortified with quantum-resistant encryption and predictive analytics, ensuring both personal data security and the integrity of critical infrastructure. Citizens enjoy a holistic, interconnected experience where smart homes, cities, and enterprises thrive securely in an environment powered by the fusion of AI, blockchain, and IoT. The invention's commitment to sustainability and ethical AI is unparalleled, marked by continuous audits, decentralized ethics committees, energy-efficient blockchain consensus mechanisms, and integrated carbon offset programs, culminating in a society where innovation, security, and the well-being of its inhabitants take precedence. The present invention transcends utopian ideals, serving as a testament to the boundless potential unleashed when AI, blockchain, and IoT converge harmoniously.

No. of Pages : 10 No. of Claims : 2

(54) Title of the invention : SYSTEM FOR AUTOMATED HOSPITAL APPOINTMENT SCHEDULING

(51) International classification :G16H0015000000, G06F0003160000, G10L0015180000, A61B0005000000, G06N0020000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Chitkara University Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ----- 2)Chitkara Innovation Incubator Foundation Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)SINGH, Sachitanand Address of Applicant :Chitkara School of Health Sciences, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ----- ----- 2)THAKUR, Renu Address of Applicant :Chitkara School of Health Sciences, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ----- -----

(57) Abstract :
The present disclosure relates to a system (100) for scheduling hospital appointments, the system (102) includes a device 102 positioned at an entrance or inside a building of the hospital. The device (102) includes a touchscreen display (104), an image acquisition unit (106), and a controller (112). The controller (112) efficiently registers patients based on personal details received through the touchscreen display (104) and a microphone (108), facilitating user-friendly interaction. The image acquisition unit (106) captures images of body parts and previous medical reports of the patient, analyzed through image analysis, Optical Character Recognition (OCR), and Natural Language Processing (NLP) techniques. The controller (112) employs a machine learning technique that analyzes the first and second sets of symptoms, identifying diseases and subsequently matching the entity with a suitable health practitioner from a specialized database. Moreover, the device (102) provides multilingual support via a language selection feature on the touchscreen display (104) thus enhancing accessibility.

No. of Pages : 24 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :18/01/2024

(21) Application No.202411003512 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : FLOOR CLEANING ROBOT

(51) International classification :A47L11/30,
A47L11/40
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application :NA
Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention generally relates to the robotics and home automation, specifically focusing on floor cleaning robots equipped with ultrasonic sensors and servo motors. The floor cleaning robot includes a mobile platform for supporting the robot on a floor surface, a navigation system for enabling the robot to autonomously navigate the floor surface, an ultrasonic sensor integrated into the chassis for detecting obstacles, a plurality of brushes for agitating and removing dirt and debris from the floor surface, a suction mechanism for collecting dirt and debris loosened by the brushes, and a water dispensing mechanism for dispensing water onto the floor surface to aid in cleaning.

No. of Pages : 14 No. of Claims : 10

(54) Title of the invention : FEDERATED LEARNING OF CNNs FOR MANGO LEAF DISEASES CLASSIFICATION

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	:G06N0003040000, G06Q0050020000, G06N0003080000, G16H0050200000, A61K0039116000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)Sachin Jain Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Ajay Kumar Garg Engineering College, Ghaziabad, U.P, India ----- 2)Dr. Preeti Jaidka 3)Dr. Chandra Shankar 4)Dr. Yatheesh.K.C. 5)Dr. Deependra Sharma 6)Mr. Rakesh Kumar Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Sachin Jain Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Ajay Kumar Garg Engineering College, Ghaziabad, U.P, India ----- 2)Dr. Preeti Jaidka Address of Applicant :Assistant Professor, Department of Electronics and Communication Engineering, JSS Academy of Technical Education, C-20/1, Sec-62 Noida, G.B Nagar, U.P, India ----- 3)Dr. Chandra Shankar Address of Applicant :Associate Professor, Department of Electronics and Communication Engineering, JSS Academy of Technical Education, C-20/1, Sec-62 Noida, G.B Nagar, U.P, India ----- 4)Dr. Yatheesh.K.C. Address of Applicant :Assistant Professor, Department of Electronics and Communication Engineering, JSS Academy of Technical Education, C-20/1, Sec-62 Noida, G.B Nagar, U.P, India ----- 5)Dr. Deependra Sharma Address of Applicant :Assistant Professor, Department of Electronics and Communication Engineering, JSS Academy of Technical Education, C-20/1, Sec-62 Noida, G.B Nagar, U.P, India ----- 6)Mr. Rakesh Kumar Address of Applicant :Assistant Professor, Department of Electronics and Communication Engineering, JSS Academy of Technical Education, C-20/1, Sec-62 Noida, G.B Nagar, U.P, India -----

(57) Abstract :

[042] This invention introduces a groundbreaking solution for the precise categorization of mango leaf diseases into four distinct severity categories. At its core, the Federated Learning Convolutional Neural Network (FL-CNN) model revolutionizes disease management in agriculture. The invention's components encompass data collection, preprocessing, model aggregation, and the FL-CNN model itself. Data collection ensures access to a diverse dataset of mango leaf images representing varying disease severity levels, while preprocessing optimizes this data for training. Model aggregation facilitates decentralized collaboration among multiple clients, preserving data privacy and enhancing adaptability. The FL-CNN model, designed specifically for this task, consistently outperforms traditional CNNs and state-of-the-art techniques, marking a significant advancement in disease severity assessment. This comprehensive solution not only benefits farmers but also encourages collaboration among diverse stakeholders in the agricultural industry. Moreover, the model's potential for adaptation to other plant species presents a promising avenue for advancing disease management practices across agriculture. This invention exemplifies the power of technology and collaboration in enhancing agriculture's sustainability, productivity, and data security. Accompanied Drawing [FIGS. 1-2]

No. of Pages : 20 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411003604 A

(19) INDIA

(22) Date of filing of Application :18/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : BIODEGRADABLE OXYGEN SCAVENGING FILMS AND ITS PREPARATION METHOD THEREOF

(51) International classification :C08K0005000000, C08J0005180000, B65D0081260000, A23L0003343600, C08L0067040000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)INDIAN INSTITUTE OF TECHNOLOGY ROORKEE Address of Applicant :ROORKEE Roorkee ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)PROF. PRADIP KUMAR MAJI Address of Applicant :Department of Polymer and Process Engineering, Indian Institute of Technology Roorkee, Saharanpur Campus, Saharanpur, Uttar Pradesh- 247001, Saharanpur ----- 2)PROF. KIRTIRAJ KUNDLIK GAIKWAD Address of Applicant :Department of Paper Technology, Indian Institute of Technology Roorkee, Saharanpur Campus, Saharanpur, Uttar Pradesh- 247001 Saharanpur ----- 3)MR. DAKURI RAMAKANTH Address of Applicant :Department of Polymer and Process Engineering, Indian Institute of Technology Roorkee, Saharanpur Campus, Saharanpur, Uttar Pradesh- 247001 Saharanpur ----- 4)MS. AKHILA KONALA Address of Applicant :Department of Paper Technology, Indian Institute of Technology Roorkee, Saharanpur Campus, Saharanpur, Uttar Pradesh- 247001 Saharanpur -----

(57) Abstract :
ABSTRACT BIODEGRADABLE OXYGEN SCAVENGING FILMS AND ITS PREPARATION METHOD THEREOF The present invention relates to the biodegradable oxygen scavenging films and its preparation method thereof. Biodegradable polymeric materials (polyvinyl alcohol and natural rubber latex) have been introduced as an oxygen scavenger composition. The synthesized polymer composite is doped with Manganese chloride and Acetophenone. The composition was later activated using different UV light exposure times for its oxygen-scavenging activity. The developed oxygen scavenging composition can be used in food packaging and automotive applications. Published with Figure 1

No. of Pages : 22 No. of Claims : 10

(54) Title of the invention : A WIRELESS EDGE-COMPUTING-BASED REAL-TIME TRANSIT PASSENGER COUNTING SYSTEM AND METHOD

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	(71)Name of Applicant : 1)INDIAN INSTITUTE OF TECHNOLOGY ROORKEE Address of Applicant :ROORKEE Roorkee ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)PROF. AMIT AGARWAL Address of Applicant :Department of Civil Engineering, Indian Institute of Technology Roorkee, Roorkee- 247667, Uttarakhand Roorkee ----- 2)MR. MANAN GUPTA Address of Applicant :Department of Civil Engineering, Indian Institute of Technology Roorkee, Roorkee- 247667, Uttarakhand Roorkee ----- 3)MR. HEMANTH VASIREDDY Address of Applicant :Department of Civil Engineering, Indian Institute of Technology Roorkee, Roorkee- 247667, Uttarakhand Roorkee ----- 4)MR. ADITYA KORA Address of Applicant :Department of Electronics and Communication Engineering, Indian Institute of Technology Roorkee, Roorkee- 247667, Uttarakhand, Roorkee ----- ----

(57) Abstract :
ABSTRACT A WIRELESS EDGE-COMPUTING-BASED REAL-TIME TRANSIT PASSENGER COUNTING SYSTEM AND METHOD The present invention relates to a wireless edge-computing-based real-time transit passenger counting system and method. The product is (a) wireless (b) real-time (c) supports edge computing, i.e., a configured method for Boarding and alighting passengers' detection, and counting for each door of the transit vehicle (d) integrates with the cloud for data storage, and (e) cloud is configured using a relational database for the transit network in a city. This complements the passenger information system at transit stops/ stations/ platforms or mobile apps and will facilitate trip planning for the users and decision-making for the operators to reduce the divergence between demand and supply. Published with Figure 1

No. of Pages : 23 No. of Claims : 6

(54) Title of the invention : SYNTHESIS OF ACTIVATED CARBON FROM INDIAN DEVIL TREE POLLEN FIBERS FOR HIGH-PERFORMANCE SYMMETRIC SUPERCAPACITORS

(51) International classification :B82Y30/00, B82Y40/00, C01B31/08, C01B32/312, C01B32/318 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)INDIAN INSTITUTE OF TECHNOLOGY KANPUR Address of Applicant :DEAN, RESEARCH & DEVELOPMENT, ROOM NUMBER 151, FACULTY BUILDING, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA KANPUR - ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)KAMAL KRISHNA KAR Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING & MATERIALS SCIENCE PROGRAMME, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, UTTAR PRADESH, INDIA, 208016 KANPUR ----- 2)KAPIL DEV VERMA Address of Applicant :DEPARTMENT OF MATERIALS SCIENCE PROGRAMME, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, UTTAR PRADESH, INDIA, 208016 KANPUR ----- 3)KOGARA RASI Address of Applicant :DEPARTMENT OF MATERIALS SCIENCE PROGRAMME, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, UTTAR PRADESH, INDIA, 208016 KANPUR ----- 4)PRATITI PRADHAN Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, UTTAR PRADESH, INDIA, 208016 KANPUR ----- 5)SRI NIWAS SINGH Address of Applicant :DEPARTMENT OF ELECTRICAL ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, UTTAR PRADESH, INDIA, 208016 KANPUR -----

(57) Abstract :
SYNTHESIS OF ACTIVATED CARBON FROM INDIAN DEVIL TREE POLLEN FIBERS FOR HIGH-PERFORMANCE SYMMETRIC SUPERCAPACITORS ABSTRACT The present invention provides an environmentally friendly method for synthesizing activated carbon from Indian Devil Tree (Alstonia scholaris) pollen fibers. The process involves seed extraction, fiber cleaning, controlled drying, and a two-stage carbonization process. Chemical activation using 6M potassium hydroxide results in Saptaparni fiber-derived activated carbon (SFC), washed with hydrochloric acid and deionized water. The SFC demonstrates superior electrochemical properties, forming the basis for a high-performance symmetric supercapacitor device. A symmetric supercapacitor device with SFC-based electrodes on stainless steel plates discloses specific capacitance (125 F g¹), energy density (4.3 Wh kg¹), and stability. The present invention addresses the growing need for sustainable energy storage solutions, providing an eco-friendly alternative while efficiently utilizing the abundant Indian Devil Tree pollen fibers in diverse applications, including portable electronics and electric vehicles. FIG. 2

No. of Pages : 35 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411003771 A

(19) INDIA

(22) Date of filing of Application :19/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : TONGUE PRESSURE DEVICE AND SYSTEM THEREOF

(51) International classification :A61B5/103, A61B5/22,
G01L1/22, G01L9/04

(86) International Application
No :NA
Filing Date :NA

(87) International Publication No: NA

(61) Patent of Addition to :NA
Application Number :NA
Filing Date

(62) Divisional to Application :NA
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(57) Abstract :

This invention is a device used for measuring the pressure of tongue in patients having various skeletal malocclusions by using the sensor strain gauge sensor which is incorporated within the analogue display. The sensor is connected with a microcontroller with an inbuilt Analogue to Digital converter (ADC) and a display. The voltage from the sensor is fed to the ADC pin of microcontroller and then converted and displayed on the screen.

No. of Pages : 27 No. of Claims : 10

(54) Title of the invention : THE AUTOMATED CLOTH HANGING STAND WITH RAIN DETECTION SYSTEM

(51) International classification	:A01G0015000000, A47G0025060000, E05F0015710000, E06B0007098000, G01W0001060000	(71)Name of Applicant : 1)COER University Address of Applicant :COER University,7th km Stone Roorkee Haridwar Highway ----- 2)RITIKA LOHAN 3)SIDAK VOHRA 4)DR. ARUNA TOMAR 5)DR. SUMMIYA PARVEEN Name of Applicant : NA Address of Applicant : NA
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(57) Abstract :

The core of the automated stand lies in its sophisticated rain detection technology. Utilizing a combination of sensors and weather monitoring devices, the system accurately identifies the onset of rain. This technology is crucial in preventing clothes from being exposed to rain and subsequently wet or damp, eliminating the need for constant vigilance by the users. Upon detecting rain, the stand initiates an autonomous relocation mechanism. Whether equipped with wheels or tracks, this mobility system ensures a swift and smooth transition to a predetermined sheltered spot. This feature significantly reduces the reliance on manual intervention, providing a seamless solution to the age-old problem of forgotten clothes during rainfall. In addition to relocating, the stand incorporates a robust protective cover. This cover is designed to shield the hanging clothes from rain, wind, and sunlight, preserving their quality and dryness. The mechanism ensures that the cover deploys promptly upon rain detection, offering comprehensive protection until the weather conditions become favourable for drying once again. To sustain the automated system, the invention incorporates a long-lasting power source. This could include rechargeable batteries, solar power, or a combination of both. The emphasis on sustainability aligns with modern eco-friendly practices, making the stand not only convenient but also environmentally responsible. Recognizing the need for user flexibility, the cloth hanging stand boasts a user-friendly interface. Users have the option for manual control and override, allowing them to intervene if necessary. The integration of a smartphone app or remote control enhances the overall user experience, making the system adaptable to individual preferences. To withstand diverse weather conditions, the stand is meticulously designed using high-quality materials. These materials are chosen for their durability and corrosion resistance, ensuring a prolonged lifespan for the system. The stand's ability to endure rain, strong winds, and sunlight contributes to its overall effectiveness. Safety is paramount in the design of the automated cloth hanging stand. Obstacle detection sensors and emergency stop mechanisms are integrated to prevent accidents or damage during movement. These safety features enhance the reliability and trustworthiness of the system. Striving for cost-effectiveness is a key aspect of the design philosophy. By optimizing the use of materials, technology, and manufacturing processes, the goal is to make the product accessible to a broad audience. This affordability factor increases the stand's market potential and adoption. Extensive market research has been conducted to understand the demand for such a product. Collaboration with meteorological experts, engineers, and potential users has played a pivotal role in refining the design and functionality. The iterative development process ensures that the automated cloth hanging stand aligns with user expectations and preferences. Compliance with relevant safety and regulatory standards is a non-negotiable aspect of the invention. Adhering to established guidelines reinforces the product's suitability for widespread adoption and ensures its ethical and legal standing in the market.

No. of Pages : 33 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :05/01/2024

(21) Application No.202411001056 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SYSTEM, METHOD AND DEVICE FOR THE DETECTION OF DRUG RESISTANT PATHOGEN :
ADVANCED BL TESTER

(51) International classification :C12Q0001040000, C12Q0001689000, G01N0033840000, C12Q0001680600, A61B0010000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT A SYSTEM, METHOD AND DEVICE FOR THE DETECTION OF DRUG RESISTANT PATHOGEN :

ADVANCED BL TESTER The present invention relate to a system and method for the detection of the presence of pathogenic bacteria causing drug resistance, detecting based on a distinct colorimetric assay, with an appreciable advancement in shortening the detection time, generating reliable results very fast. This invention will efficiently detect the expression of SBL, MBL, and Efflux pump(EP) differentially from biomedical samples like Urine, Saliva, Pus, CSF, Ascitic fluid, Blood, and Sputum. This convenient system and method support a reduction in detection time (within 2-4 hrs) under controlled parameters and can detect SBL, MBL and EP differentially. Advanced BL Tester will be readily available as a 'ready to use' kit in hand to detect the presence of pathogenic bacteria causing drug resistance. This package will consist of a device having a filter inside a cassette and a shaking, heating and testing (SHT) unit. This device will be able to run using battery and electricity, could even run using a power bank. This will be able to shake four tubes at a go and maintain 37 for bacterial growth from biomedical samples. The third part of the kit contains a cassette. This cassette will differentiate between the different types of BL and EP in separate chambers. Figure 1

No. of Pages : 27 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411002880 A

(19) INDIA

(22) Date of filing of Application :15/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SMART PORTABLE BOTTLE FOR HYDRATION TRACKING OF INDIVIDUAL (S) AND TEMPERATURE CONTROL, FOR VEHICLES

(51) International classification :B65D0081380000, G06Q0010080000, H05B0001020000, G08B0021180000, G05D0023190000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Abstract Smart Portable Bottle for hydration tracking of individual (s) and temperature control, for vehicles A Smart Portable Bottle with a cover for Hydration Tracking of an individual and Temperature Control, for vehicles, comprising a bottle cover designed to fit within one of the front storage spaces of the vehicle, an insulated container designed to fit within the bottle cover and integrated with a temperature control system for maintaining the temperature of the beverages, and a plurality of IoT based sensors strategically positioned in the insulated container for monitoring water temperature and beverage consumption levels, wherein said insulated container is communicatively coupled with an application programming interface for remote control of temperature settings, hydration tracking, and goal setting, alert setting, notification receipt and timely reminders for the individual. Fig. 1

No. of Pages : 17 No. of Claims : 9

(54) Title of the invention : A CONDUCTIVE POLYMER COMPOSITE (CPC) SENSOR

(51) International classification :B01D71/34, C08L27/16, C08L65/00, H01B1/00, H01G11/48
 (86) International Application No :NA
 Filing Date :NA
 (87) International Publication No : NA
 (61) Patent of Addition to Application Number :NA
 Filing Date :NA
 (62) Divisional to Application Number :NA
 Filing Date :NA

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(57) Abstract :

The present invention relates to a conductive polymer composite (CPC) sensor comprising a membrane comprising poly(vinylidene fluoride) (PVDF), a polystyrene sulfonic acid (PSSA), and a graphite, wherein said membrane is wrapped in a copper foil. Poly (vinylidene fluoride) (PVDF)-based composites are highly desirable in diverse applications, including wearable devices, energy harvesting, smart skin robotics and health monitoring devices. However, the voltage sensitivity and output current density of PVDF-based composite should be enhanced for energy harvesting and wearable device applications. To enhance the voltage sensitivity and output current density, polystyrene sulphonate (PSSA) beads with ranges of 58 nm to 133 nm as an ionic conducting filler and graphite (Gr) as an electronic conducting filler are attached to a PVDF matrix that led to the development of hydrophilic and polar (beta) phase-based conductive PVDF composites (CPC). The PVDF/PSSA/Gr-based CPC with an 80/05/15 blend ratio exhibits a high sensitivity of 0.6 V N⁻¹, which outperforms PVDF-based composites. After being worn on the finger, the CPC detects finger bending and generates an output voltage of up to 5 V CPC with 80/10/10 blend produced a high current density of 0.16 A/cm² and capacitance of 14.7 F/cm² at 3 V. The CPC's superior electrical and sensing capabilities can be utilized as an electrode material for supercapacitors, wearable devices, and soft robotics applications.

No. of Pages : 39 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :19/01/2024

(21) Application No.202411003823 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD FOR AUTOMATED LEGAL DOCUMENT GENERATION AND ANALYSIS

(51) International classification :G06Q0050180000, G06Q0010100000, G06F0016930000, G06F0040174000, G06F0040560000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Abstract: The present invention relates to a system and method for automated legal document generation and analysis, leveraging artificial intelligence and natural language processing techniques. The invention aims to streamline the process of creating, reviewing, and analyzing legal documents by automating various aspects of the legal document lifecycle.

No. of Pages : 5 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :19/01/2024

(21) Application No.202411003867 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : TOPICAL FORMULATION COMPRISING INDOMETHACIN AND FELBINAC LOADED TRANSFERSOMES

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(51) International classification	:A61K31/405, A61K47/10, A61K47/32, A61K9/00, A61K9/107, A61K9/127, A61P29/00, B82Y5/00	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

ABSTRACT Topical formulation comprising Indomethacin and Felbinac loaded transfersomes Present invention provides a topical pharmaceutical composition comprising stable transfersomes loaded with a combination of Indomethacin and Felbinac wherein said transfersomes having entrapment efficiency of 75 to 80%. Present invention further provides process of formulating topical pharmaceutical composition in form of gel, comprising stable transfersomes loaded with a combination of Indomethacin and Felbinac wherein said gel formulation provides anti-inflammatory effect even in low dosages.

No. of Pages : 30 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411003884 A

(19) INDIA

(22) Date of filing of Application :19/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A METHOD FOR MACHINE LEARNING IN CRYPTOGRAPHIC CLOUD FORENSICS FOR ENHANCED SECURITY

(51) International classification :G06N0020000000, G06N0005040000, G06F0021570000, G06N0020200000, G06Q0010060000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
Disclosed herein is a cryptographic cloud forensics system (100) for enhanced security to address emerging threats, vulnerabilities, and technological advancements in cloud security. The system (100) comprises a data collection module (102) configured to collect cryptographic cloud data during a forensic investigation. A machine learning model module (104) configured to utilize a pre-trained machine learning model for analyzing the collected cryptographic cloud data, identifying patterns, anomalies, or security threats. A forensic insights generation module (106) configured to generate actionable forensic insights based on the analysis performed by the machine learning model. A security response module (108) configured to implement security measures in response to identified security threats, the security measures comprising adaptive actions based on the forensic insights. A computer-readable storage medium comprising instructions that, when executed by a processor, cause the processor to perform a method for enhancing security in cryptographic cloud forensics through machine learning.

No. of Pages : 24 No. of Claims : 10

(54) Title of the invention : EXTRACTED PHENOLIC COMPOUNDS WITH ANTI-CANCER EFFICACY IN POTENT BIOLOGICAL

(51) International classification :A61K/73, A61K36/81, A61P35/00, G01N30/06 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Mrs. Akanksha Kulshreshtha Address of Applicant :B.N. College of Pharmacy, Udaipur-Rajasthan. Pin- 313002 Udaipur ----- 2)Dr. Mahendra Singh Ranawat Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Mrs. Akanksha Kulshreshtha Address of Applicant :B.N. College of Pharmacy, Udaipur-Rajasthan. Pin- 313002 Udaipur ----- 2)Dr. Mahendra Singh Ranawat Address of Applicant :B.N. College of Pharmacy, Udaipur-Rajasthan. Pin- 313002 Udaipur -----

(57) Abstract :

Present invention discloses an invention relates to extraction, characterisation and in-vitro efficacy for potent cytotoxic/anti-cancer activity in Hela cell lines. An herbal extract, rich in phenolic compounds, separate/fractionation using an appropriate organic solvent system using the Soxhlet apparatus. The extraction of phenolic compounds involved the use of a combination of organic solvents, including chloroform and methanol in various ratios, for the preparation of crude extracts. Total phenolic compound content was estimated spectrophotometrically by Folin-ciocalteau method. Invention also discloses the anticancer activity preferably by in-vitro testing method of the fractions was evaluated in vitro using the MTT assay with L132 normal lung and Hela cancer cell lines obtained from NCCS, Pune. The cells were sub-cultured in DMEM media. Disclosed herbal extracts from antioxidant-containing plants demonstrated cytotoxic effects on tumor cells. The invention focused on five substances: vanillic acid, ferulic acid, caffeine acid, salicylic acid, and ellagic acid. The invention primarily discloses one compound that is vanillic acid exhibited higher cytotoxic activity with an IC50 value of 166.15. This breakthrough suggests the potential of vanillic acid to be used as an anti-cancer agent, warranting further exploration of its therapeutic properties.

No. of Pages : 16 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411004071 A

(19) INDIA

(22) Date of filing of Application :19/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SPHERICAL TETRAHEDRAL GRINDING BALLS FOR THE MILL (BALL MILL & SAG MILL)

(51) International classification :B02C0017200000, B02C0017180000, C09K0003140000, B02C0017220000, B02C0017100000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The invention relates to a tetrahedral grinding ball for crushing and grinding of ores, rocks or earth, inert and all other materials, in drum- and other types of mills (ball mill & Sag mill). It finds application in ore enrichment, production of construction materials, waste processing and mining industries other industrial branches. The tetrahedral grinding balls has a shape of like a spheroidal ball which six edges semi spherical with flat (4&5), four vertices (2) and four semi spherical triangular faces (1) & one Ring on three face adjoint three vertices (3), all edges and vertices of the body may be convex or concave. which are also arcs, edges of equal length. The existence of edges and vertices makes the tetrahedral grinding balls more efficient in crushing bigger particles of the ground materials. The greater area of the tetrahedral grinding media balls compared to the spherical grinding ball and its greater density in a given volume increase significantly its productivity of grinding. A major advantage of the suggested tetrahedral grinding media is its producibility which allows its successful mass production.

No. of Pages : 7 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411004117 A

(19) INDIA

(22) Date of filing of Application :20/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AUTO-IRRIGATION SYSTEM FOR SUSTAINABLE AGRICULTURE USING IOT AND MACHINE LEARNING

(51) International classification :A01G0025160000, G06N0020000000, G06Q0050020000, G09B0007000000, G06Q0010060000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
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(62) Divisional to Application Number :NA
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(57) Abstract :

Revealed is an IoT-based automated irrigation system for sustainable agriculture, integrating machine learning. The system comprises sensors for environmental data collection, a wireless communication module to transmit data to a central server, a processor for data processing and machine learning execution, a decision support system for interpreting processed data and generating recommendations, a real-time monitoring and alert system, an automated execution system, a security and privacy system, a scalability and integration system, and a user interface system. By employing machine learning algorithms, the system enhances crop growth, minimizes waste, and optimizes irrigation schedules, fertilizer applications, and strategies for pest and disease management. This holistic approach represents a significant advancement in precision farming methodologies for sustainable and efficient agricultural practices.

No. of Pages : 8 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411004124 A

(19) INDIA

(22) Date of filing of Application :20/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : TANK TROLLEY SPRAYER SYSTEM

(51) International classification :A01M7/00, B05B1/02, B05B13/02, B05B15/25, B05B9/04
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention is a tank trolley sprayer system has a display unit (103-104) for display of temperature, moisture and ions detected. The plurality of sensors used are temperature sensor (101), ISE sensor (102) as per requirements connected via basic circuitry (106) having a solar battery with maintenance warning light (105) for informing the user about the maintenance of the spraying system. The system has a protection unit having umbrella (108), transparent protection shield (107), spraying system with plurality of tank (106) having basic circuitry, pump (116), nozzle (115), linking pipe (114), wheel (113) pipe (110), trigger (109), stand (112) with trolley (111) with plurality of sensors at the base for data collection and display unit for display of results. The device is very simple, compact, economic, environment friendly and commercially viable.

No. of Pages : 16 No. of Claims : 7

(54) Title of the invention : WINDOW DEFOGGER SYSTEM AND A WINDOW THEREOF

(51) International classification :H01Q0001120000, F23C00990000000, B60J0001200000, B60H0001000000, F26B0021000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Chitkara University Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ----- 2)Chitkara Innovation Incubator Foundation Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)KHANNA, Arrik Address of Applicant :B-15/310/1, Mohalla Sui Garan, Near Panchayati Gurudwara, CIA Staff Road, Patiala - 147001, Punjab India. Patiala ----- 2)SINGH, Labh Address of Applicant :#170, Street No.1, Guru Nanak Nagar, P.O. Bahadurgarh, Patiala - 147021, Punjab, India. Patiala ----- ----- 3)CHAUHAN, Puneet Kumar Address of Applicant :#760 Kavi Nagar, Kashipur, Udham Singh Nagar, Uttarakhand - 244713, India. Kashipur ----- 4)MOHAL, Tanveer Singh Address of Applicant :#15A, Dashmesh Nagar, Patiala - 147001, Punjab, India. Patiala -----

(57) Abstract :
The present disclosure discloses a window defogger system (100) in a vehicle (220) and a window (202) thereof. A heating mechanism (102) is configured to heat ambient air. One or more conduits (104) having multiple apertures (106) extending along a length of a frame (204) of the window (202) of the vehicle (220). One or more valves (108) coupled in between the heating mechanism (102) and the one or more conduits (104), such that the one or more valves (108) facilitate flow of the heated air from the heating mechanism (102) towards the one or more conduits (104), and further the air moves from the apertures (106) of the conduits (104) towards a glass of the associated window (202) to enable defogging of the window (202).

No. of Pages : 18 No. of Claims : 10

(54) Title of the invention : OVERHEAD MOBILE CHARGING SYSTEM FOR ELECTRIC VEHICLES

(51) International classification :B60L5/00, B60L5/12, B60L53/00, B60L53/14, B60L53/30, H02J7/00

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA(62) Divisional to Application Number :NA
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(57) Abstract :

An overhead mobile charger system for mounting between a pair of adjacent and spaced apart rows of side-by-side parking spaces and exhibiting full circle traversing so as to reach and charge electric Vehicles parked in the pair of adjacent and spaced-apart rows of side-byside parking spaces. The system includes a single EV battery charger, a boom, and apparatus for rotatably mounting the boom over, and between, the pair of adjacent and spaced-apart rows of side-by-side parking spaces. The single EV battery charger has a power cable terminating in an EV connector. The power cable of the single EV battery charger runs along, and depends from, the boom, and together with the boom being rotatably mounted via the apparatus so as to allow the boom to exhibit full circle traversing, the electric Vehicles parked in the pair of adjacent and spaced-apart rows of side-by-side parking spaces are reached Charged by the EV connector of the single EV battery charger.

No. of Pages : 9 No. of Claims : 9

(54) Title of the invention : AUTOMATED UNIFORM DETECTION SYSTEM

(51) International classification :G06N0003080000, G06Q0050200000, G16H0020100000, H04L0012280000, H05K0007140000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Chitkara University Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura ----- 2)Chitkara Innovation Incubator Foundation Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Isha Gupta Address of Applicant :Department of Electronics and Communication Engineering, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura ----- 2)Sonam Aggarwal Address of Applicant :Department of Electronics and Communication Engineering, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura ----- 3)Amandeep Singh Address of Applicant :Department of Mechanical Engineering, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India Rajpura ----- -----

(57) Abstract :
ABSTRACT AUTOMATED UNIFORM DETECTION SYSTEM The present disclosure introduces an automated uniform detection system 100. It is designed to revolutionize uniform compliance monitoring within educational institutions in an automated manner, which addresses the long-standing challenges associated with manual uniform checks and inconsistent enforcement. It comprises of data collection and annotation module 102, data preprocessing module 104, face recognition system 200 comprising of deep learning model 202, uniform detection model 300, notification system 302, processor 304, user interface 306, communication unit 308, internet connectivity module 310. Reference Fig 1

No. of Pages : 23 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411004482 A

(19) INDIA

(22) Date of filing of Application :23/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : CNC-BASED SMART HYDROGEL BASED ON GREEN CHEMISTRY APPROACH

(51) International classification :A23L0029262000, A61L0015280000, A61K0008730000, C08B0015040000, C11D0003220000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The method for preparation of innovative and eco-friendly, intelligent, high absorptive, transparent hydrogel, comprising cross-linking a precursor with polysaccharide-based materials like starch/xanthum gum (XG)/chitosan/sodium alginate (SA)/ hyaluronic acid (HYAL)/ guar gum (GG)/pectin/cellulose/chitin/heparin/peptidoglycan/-carrageenan/ -carrageenan combined with unsaturated diprotic acid (UDPA), using cross-linking agent biocompatible surface modified nanopolysaccharide (PS-N)/PS-N + Peptide (P-R) with citric acid/actinoplanic acid A/actinoplanic acid B/maleic acid/Glutaric Acid/Adipic acid/Genipin. The invention further concerns the eco-friendly smart hydrogel obtainable by the method of the invention and the use thereof in many different applications.

No. of Pages : 15 No. of Claims : 10

(54) Title of the invention : PIONEERING ERP AND AI CONVERGENCE IN FINANCE

(51) International classification (86) International Application No (87) International Publication No (61) Patent of Addition to Application Number (62) Divisional to Application Number :G06N0020000000, G06N0010000000, G06N0005040000, G06Q0010060000, G06N0007000000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)Madhavi Godbole Address of Applicant :Digital Transformation Head, Application Service Delivery, Apolisris Inc, Vista, CA ----- ----- 2)Hari Prasad Josyula 3)Sudha Kiran Kumar Gatala 4)Srinivasa Rao Gunturu Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Madhavi Godbole Address of Applicant :Digital Transformation Head, Application Service Delivery, Apolisris Inc, Vista, CA ----- 2)Hari Prasad Josyula Address of Applicant :Independent Researche, Finance, USABANK, Princeton, NJ ----- 3)Sudha Kiran Kumar Gatala Address of Applicant :Independent Researcher, Application Service Delivery, ltimindtree, Iselin, NJ ----- 4)Srinivasa Rao Gunturu Address of Applicant :Independent Researcher, Application Service Delivery, ltimindtree, Houston, TX -----

(57) Abstract :

The present invention relates to provide a pioneering ERP and AI convergence in finance. Positioned at the forefront of financial technology, it departs significantly from conventional methods, establishing new benchmarks in efficiency, intelligence, and adaptability. The platform seamlessly integrates ERP with advanced AI, offering an intuitive interface to streamline complex financial processes and empower organizations with data-driven decisions. Noteworthy features include a dynamic predictive analytics engine, leveraging machine learning for real-time market responses, and AI-driven automation that reduces manual workload, minimizes errors, and enhances operational efficiency. The invention prioritizes cybersecurity, employing encryption and anomaly detection for data protection and compliance. With support for emerging technologies like blockchain and quantum computing, it stands as a future-proof engine driving the next wave of financial innovation, uniting ERP and AI in a transformative alliance for unparalleled predictive analytics, intelligent automation, and fortified security.

No. of Pages : 11 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411003971 A

(19) INDIA

(22) Date of filing of Application :19/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : MACHINE LEARNING-BASED APPROACH FOR EXPLORING URBAN DEMAND FOR AGRICULTURAL PRODUCTS, URBAN FARMING, AND RURAL-URBAN MIGRATION

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(51) International classification	:G06N0020000000, G06N0003040000, G06Q0050260000, G06N0003080000, G06N0005040000	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
The present invention introduces a sophisticated machine learning-based system designed to revolutionize the understanding and management of complex interdependencies between urbanization, agricultural demand, and migration dynamics. By leveraging diverse datasets encompassing urban demographics, agricultural statistics, climate, and migration patterns, the system employs advanced analytics and machine learning models, including regression, clustering, and neural networks, to predict and dynamically analyze urban demand for agricultural products, identify optimal locations for urban farming, and model rural-urban migration patterns. The invention further features an intuitive user interface for real-time visualization and customization, empowering urban planners and policymakers with actionable insights to navigate the challenges of modern urban environments and foster sustainable coexistence between urban and agricultural ecosystems.

No. of Pages : 17 No. of Claims : 5

(54) Title of the invention : IMPROVING GENERALIZED FREQUENCY DIVISION MULTIPLEXING PERFORMANCE THROUGH ZADOFF-CHU PRECODING TECHNIQUE

(51) International classification (86) International Application No (87) International Publication No (61) Patent of Addition to Application Number (62) Divisional to Application Number :H04L0027260000, H04L0005000000, H04J0013000000, H04L0001000000, H04B0007045600 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)Mahatma Jyotiba Phule Rohilkhand University, Bareilly Address of Applicant :M.J.P.Rohilkhand University, Bareilly, Uttar Pradesh , India -243006 Bareilly ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. CHHAVI SHARMA Address of Applicant :M.J.P.Rohilkhand University, Bareilly, Uttar Pradesh , India -243006 Bareilly ----- 2)DR. ARVIND KUMAR Address of Applicant :National Institute of Technology, Kurukshetra, Haryana, India Kurukshetra ----- 3)PROF. S.K. TOMAR Address of Applicant :M.J.P.Rohilkhand University, Bareilly, Uttar Pradesh , India -243006 Bareilly -----

(57) Abstract :

Improving Generalized Frequency Division Multiplexing Performance through Zadoff-Chu Precoding Technique is the proposed invention. Nonlinearity introduced by the high-power amplifier (HPA) is a major obstacle for all multicarrier systems due to their high peak to average power ratio (PAPR). GFDM may be considered as a suitable modulation scheme for 5G wireless systems. For the purpose of maximum power transmission, HPA is used with GFDM system. In the proposed work, zadoff-chu precoding technique is investigated for GFDM systems to analyze the PAPR and BER performances. The simulation results show that the PAPR of the proposed GFDM is reduced by 4dB and 5dB as compared to conventional GFDM signal and conventional OFDM, respectively at CCDF of 10⁻².

No. of Pages : 20 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411003978 A

(19) INDIA

(22) Date of filing of Application :19/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : ACCIDENT PREVENTION MODULE WITH MULTIPLE ALERT SYSTEM

(51) International classification :A61B0005110000, A61B0005000000, G10H0001000000, G08B0021060000, B60Q0009000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Accident prevention module with multiple alert System is the proposed invention. This module harnesses the power of innovative technology, integrating sleeping detection and eyeblink sensors to safeguard against potential accidents caused by fatigue and distraction. The future of such accident prevention modules lies in their continual improvement, adaptability to diverse environments, and seamless integration with evolving technology. By enhancing detection accuracy, personalizing interventions, and ensuring user acceptance, these systems can significantly contribute to reducing accidents caused by driver fatigue or distraction in various settings.

No. of Pages : 20 No. of Claims : 6

(54) Title of the invention : EARLY DETECTION OF BREAST CANCER: A DEEP LEARNING AND IMAGE PROCESSING APPROACH

(51) International classification :G06N0003040000, G06K0009620000, G06N0003080000, G06T0007000000, G06T0007110000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to :NA
Application Number :NA
Filing Date :NA
(62) Divisional to Application :NA
Number :NA
Filing Date :NA

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(57) Abstract :
EARLY DETECTION OF BREAST CANCER: A DEEP LEARNING AND IMAGE PROCESSING APPROACH A method for the development of the method for automatically detecting a breast mass includes: applying a first view image and a second view image of the breast to an artificial intelligence model; and detecting at least one of a nipple region, a mass region, and a pectoral muscle region from the first or second view images. A trans-unit structure is provided, global connection between coding parts is enhanced by using Transformers, so that the extracted image features are more representative, an attention mechanism is integrated to facilitate extraction of image detail features, and then the shallow features and the deep features are combined, so that feature expression is more sufficient, and segmentation and depiction. After being processed by the CNN and LSTM networks and the classifier, the oesophageal cancer pathological image processing method obtains the probability that each small epithelial image is normal, low-level, and high-level precancerous lesion types. It provides an effective digital image processing method for scientific utilization of oesophageal cancer full-section in pathology departments, has obvious benefits, and is suitable for application and popularization. FIG.1

No. of Pages : 14 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :24/01/2024

(21) Application No.202411004773 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SEWER CLEANER'S PROTECTION SYSTEM AND A METHOD THEREOF

(51) International classification :A61B0005000000, A61N0001372000, G01N0033000000, G06Q0050080000, A61N0001360000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT SEWER CLEANER'S PROTECTION SYSTEM AND A METHOD THEREOF The present disclosure relates to a sewer cleaner's protection system (100) and a method (200) thereof. The system (100) includes an external unit (102), a pulley (104), and an internal unit (106). The external unit (102) is deployed outside a sewer (150). The internal unit (106) is a portable electronics unit which can be driven in and out of a sewer (150) to sense levels of toxic gases, air quality, and oxygen in the sewer (150). The system (100) is configured to determine if safe or unsafe for a subject to go inside the sewer, to estimate duration of time up to which the subject stays inside the sewer and to estimate time interval during which the subject required to exit from the sewer as the toxic gases level reaches predetermined threshold or the air quality therein unfit for the subject or oxygen levels inadequate for the subject. Figures 1A, and 2

No. of Pages : 26 No. of Claims : 9

(54) Title of the invention : NANOELECTROMECHANICAL SWITCH WITH COMPOSITE BEAM USING GRAPHENE DERIVATIVES

(51) International classification :B82Y15/00, H01H1/00, H01H59/00 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Lovely Professional University Address of Applicant :Lovely Professional University Jalandhar Delhi GT Road Phagwara Punjab India-144411 Phagwara ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Rekha Chaudhary Address of Applicant :Lovely Professional University Jalandhar Delhi GT Road Phagwara Punjab India-144411 Phagwara ----- ----- 2)Prasantha Reddy Mudimela Address of Applicant :H.No. 1-76, Rangaraju peta, Koilkuntla, Nandyal, Andhra Pradesh, 518134 Nandyal ----- 3)Mahender Singh Kaswan Address of Applicant :Lovely Professional University Jalandhar Delhi GT Road Phagwara Punjab India-144411 Phagwara ----- -----

(57) Abstract :
Benefits of NEMS switches include reduced pull-in voltage, minimal power consumption, compact size, light weight, and improved RF performance. Excellent features demonstrated by NEMS switches include high on-off ratios and crisp switching. As a result, RF NEMS switches are a wise option for a number of applications, including data storage, communications, sensors, and military applications. Graphene has drawn the interest of researchers studying NEMS switches because of its intriguing electrical and mechanical characteristics. Low actuation voltage and strong RF performance are offered by graphene-based NEMS switches. Extremely high actuation voltage is a result of graphene's extremely high elastic modulus (1TPa). The present invention relates to a Nanoelectromechanical Switch (101) with Composite Beam Using Graphene Derivatives. Further, the study reports on the impact of varying the beam length and decreasing the elastic modulus on pull-in voltage.

No. of Pages : 20 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :24/01/2024

(21) Application No.202411004834 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : REMOTELY OPERABLE ELECTRIC JUMPER SYSTEM

(51) International classification :H02G1/02, H02G7/00, H02G7/20, H02J13/00
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention relates to a remotely operable electric jumper to be installed in an over-head transmission line. The jumper comprises a sensing unit adapted to sense voltage and current in the transmission line and any presence of a person in a predefined vicinity of the transmission line; an actuation unit configured to actuate the jumper to sectionize a part of the transmission line; a sectionizer unit adapted to sectionize a part of the transmission line with a fault; a snapping unit adapted to snap current in the sectionized area with the fault; a chamber housing the actuation module; a communication unit comprising a receiver and transmitter antenna controlled by a processor, the communication unit is configured to communicate instructions bz a lineman operating the transmission line; and a power unit adapted to supply power to the sensing unit, the actuation unit and the communication unit. The jumper is installed on a jumper pole between one romore electric poles, the jumper pole adapted to receive same voltage and current as the transmission line.

No. of Pages : 48 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411004850 A

(19) INDIA

(22) Date of filing of Application :24/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : CHEMICAL MANAGEMENT OF FUSARIUM WILT IN LENTIL(LENS CULINARIS MEDIC CAUSED BY FUSARIUM OXYSPORUM F. SP.

(51) International classification	:C12N0001140000, C05F0011080000, A23L0033105000, A01N0063300000, C12R0001645000	(71)Name of Applicant : 1)Career Point University, Kota Address of Applicant :National Highway 52, Opp Alaniya Mata Ji Mandir, Alaniya, Kota, Rajasthan Kota -----
(86) International Application No	:NA	Name of Applicant : NA
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Filing Date	:NA	-----
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Filing Date	:NA	-----

(57) Abstract :

Lentil is an increasingly important pulse crop in the prairie regions of North America where it is grown in rotation with cereals and oilseeds. Lentil (*Lens culinaris* L.) is the second most important cool-season legume crop in India. Lentils are a good source of protein, carbohydrates, dietary fiber components, minerals, vitamins, and secondary metabolites that include phenolic compounds. Fusarium wilt, caused by the pathogenic fungus *Fusarium oxysporum* f. sp., poses a significant threat to lentil (*Lens culinaris* Medic) production worldwide, leading to substantial yield losses and economic impacts. In search of effective management strategies, this study aimed to investigate the potential of chemical compounds for controlling Fusarium wilt in lentil crops. Disease such as Ascochytablight is caused by *Ascochyta Lentis* Bond G vassil and wilt is caused by *Fusarium oxysporum* f. Sp. *Lentis* play a major role in reducing lentil yield. Wilt disease appears in the field in patches at both seedling and adult stages. Seedling wilt is characterized by sudden drooping followed by yellowing and drying of leaves and the whole seedling and apparently healthy roots with reduced proliferation. Four fungicides at four concentrations 2000 ppm, 1000 ppm, 500 ppm and 250 ppm were tried against seed-borne infection of *Fusarium oxysporum* and *Rhizoctonia solani*. This study's findings highlight the potential of chemical management in mitigating Fusarium wilt in lentil crops while emphasizing the need for balanced and sustainable disease control strategies. Careful consideration of environmental impact, human health, and economic factors will be essential in the successful implementation of chemical control methods within the context of modern agriculture.

No. of Pages : 6 No. of Claims : 4

(54) Title of the invention : AN ANION EXCHANGE MEMBRANE AND A METHOD OF PREPARING THE SAME THEREOF

(51) International classification :B01D67/00, B01D71/02, C08J5/18, C08J5/22, C08K5/19, C08L29/04, C09D129/04

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

The present invention discloses a low-cost ammonium iodide (Salt) doped polyvinyl alcohol (PVA)-4-ethyl-4-methylmorpholiniumbromide (ionic liquid) anion exchange membranes (AEM for a scalable microbial electrochemical system that directly transforms chemical energy into electrical energy). In specific, the present innovation offers an inexpensive antifouling membrane separator assembly involving ammonium iodide doped polyvinyl alcohol (PVA)-4-ethyl-4-methylmorpholiniumbromide (ionic liquid) anion exchange membranes (AEM which is developed for use in microbial electrochemical systems (MES) in general and microbial fuel cells in particular. The present invention also discloses a method of preparing the ammonium iodide (Salt) doped polyvinyl alcohol (PVA)-4-ethyl-4-methylmorpholiniumbromide (ionic liquid) anion exchange membranes.

No. of Pages : 29 No. of Claims : 11

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :17/01/2024

(21) Application No.202411003406 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : PHYTOCHEMICAL SCREENING AND ANTI-INFLAMMATORY ACTIVITIES IN SEVERAL EXTRACT OF LACTUCA SATIVA L- VAR. CRISPA

(51) International classification :A23L0033105000, A61K0031216000, A61K0031120000,
A61P0029000000, A61P0011020000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to :NA
Application Number :NA
Filing Date :NA
(62) Divisional to Application :NA
Number :NA
Filing Date :NA

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(57) Abstract :
Abstract This invention pertains to a pharmaceutical composition derived from Lactuca sativa L. var. crispa, specifically targeting anti-inflammatory applications. The composition features an extract enriched with a novel compound, Lactuvone, constituting approximately 5% of the phytochemical composition. Formulated into a topical cream for dermal application, the composition exhibits a remarkable 60% reduction in inflammatory markers in vitro. The extract, obtained predominantly from the leaves and further purified through column chromatography, showcases synergistic effects with additional identified compounds, including chlorogenic acid, quercetin, lactucin, and 8-caryophyllene. Additionally, encapsulating the Lactuvone-enriched extract into oral capsules demonstrates a substantial 40% reduction in systemic inflammatory markers in vivo. This innovative pharmaceutical composition presents promising prospects for natural anti-inflammatory remedies, positioning Lactuca sativa L. var. crispa as a frontrunner in plant-based therapeutics.

No. of Pages : 14 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :17/01/2024

(21) Application No.202411003407 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : DEVICE AND METHOD FOR WATER FILTRATION

(51) International classification :C02F0001000000, C02F0001280000, C02F0001440000, C02F0009000000, B01D0069020000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention relates to a device and a method for water filtration. The three filtration chambers, activated charcoal (112), activated alumina (116), and a unique mixture (120) of sand, silt, and sodium hypochlorite efficiently remove fluoride and other impurities. The device operates without electricity thereby offering an eco-friendly, cost-effective, and user-friendly water purification. Its compact design, stainless-steel stand, and consistent filtration rate make it a durable solution, providing enhanced water quality while eliminating bacterial odors. The device represents a significant advancement in water filtration technology, addressing environmental concerns and ensuring safe, accessible drinking water.

No. of Pages : 25 No. of Claims : 9

(54) Title of the invention : A MINIATURIZED, FLEXIBLE AND COST-EFFECTIVE PARYLENE C LOADED IMPLANTABLE ANTENNA FOR LEADLESS CARDIAC PACEMAKER

(51) International classification :A61N0001375000, A61N0001050000, H01Q0021060000, H01Q0009160000, H05K0001020000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Thapar Institute of Engineering and Technology Address of Applicant :Thapar Institute of Engineering and Technology, P.O. Box No. 32, Bhadson Road Patiala ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)DR. JASWINDER KAUR Address of Applicant :Electronics and communication Department, Thapar Institute of Engineering and Technology, Patiala, Punjab, India. Patiala ----- 2)PROF. RAJESH KHANNA Address of Applicant :Electronics and communication Department, Thapar Institute of Engineering and Technology, Patiala, Punjab, India. Patiala ----- 3)SUKHPREET KAUR Address of Applicant :Electronics and communication Department, Thapar Institute of Engineering and Technology, Patiala, Punjab, India Patiala -----

(57) Abstract :

The present invention relates to a miniaturized, flexible and costeffective Parylene C loaded implantable antenna for Leadless Cardiac Pacemaker featuring a biocompatible superstrate layer of Parylene C on both sides of antenna using conductive epoxy, ensuring extended implantation without adverse reactions and providing exceptional durability, which insulates the antenna's components from bodily fluids; Parylene C include attributes such as moisture resistance, resistance to chemicals, durability, and mechanical flexibility, all of which make it imperative for implantable applications and this invention also offers a wide bandwidth, enabling the proposed antenna to handle a broad range of data types; Moreover, the implantable antenna comprises a top layer 101, bottom layer 102, Solder joints 103, Central Conductor 104, SMA connector 105; Furthermore, the thinness of the superstrate layer has minimal impact on antenna The present invention relates to a miniaturized, flexible and costeffective Parylene C loaded implantable antenna for Leadless Cardiac Pacemaker featuring a biocompatible superstrate layer of Parylene C on both sides of antenna using conductive epoxy, ensuring extended implantation without adverse reactions and providing exceptional durability, which insulates the antenna's components from bodily fluids; Parylene C include attributes such as moisture resistance, resistance to chemicals, durability, and mechanical flexibility, all of which make it imperative for implantable applications and this invention also offers a wide bandwidth, enabling the proposed antenna to handle a broad range of data types; Moreover, the implantable antenna comprises a top layer 101, bottom layer 102, Solder joints 103, Central Conductor 104, SMA connector 105; Furthermore, the thinness of the superstrate layer has minimal impact on antennaThe present invention relates to a miniaturized, flexible and costeffective Parylene C loaded implantable antenna for Leadless Cardiac Pacemaker featuring a biocompatible superstrate layer of Parylene C on both sides of antenna using conductive epoxy, ensuring extended implantation without adverse reactions and providing exceptional durability, which insulates the antenna's components from bodily fluids; Parylene C include attributes such as moisture resistance, resistance to chemicals, durability, and mechanical flexibility, all of which make it imperative for implantable applications and this invention also offers a wide bandwidth, enabling the proposed antenna to handle a broad range of data types; Moreover, the implantable antenna comprises a top layer 101, bottom layer 102, Solder joints 103, Central Conductor 104, SMA connector 105; Furthermore, the thinness of the superstrate layer has minimal impact on antenna performance, ensuring optimal signal transmission.

No. of Pages : 33 No. of Claims : 16

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411004483 A

(19) INDIA

(22) Date of filing of Application :23/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A BIODEGRADABLE HYDROGEL AND PROCESS TO PREPARE THEREOF

(51) International classification :A61L0027520000, A61L0031040000, G02F0001136200, A61K0031190000, A61L0027200000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The invention discloses a synthetic biodegradable hydrogel. The hydrogel comprises a plurality of polysaccharides, one or more short chain fatty acids or derivatives thereof, one or more organic acids or derivatives thereof, and one or more oligopeptides, in organic/inorganic solvent. A plurality of natural polymer macromers of the hydrogel are cross-linked with a plurality of macrocrystalline cellulose and peptides. The hydrogel is a white amorphous powder having water holding capacity of the hydrogel is up to 290mL/g. The invention also provides a process to prepare the synthetic biodegradable hydrogel by mixing the plurality of polysaccharides, adding short chain fatty acids, oligopeptide and organic acid or its derivatives in adequate organic/inorganic solvent, heating the solution at a temperature up to 90 oC for 2 hr to 72 hr, washing the resultant heated solution with methanol/isopropyl alcohol, and drying the washed solution to obtain the hydrogel.

No. of Pages : 16 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411004484 A

(19) INDIA

(22) Date of filing of Application :23/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : DEVELOPMENT OF CNC-BASED SEMI NATURAL HYDROGEL THROUGH GREEN CHEMISTRY

(51) International classification	:A61L0015600000, C08L0001280000, A23L0029262000, C08B0015000000, C08F0222100000	(71)Name of Applicant : 1)RUHVENILE BIOMEDICAL OPC PRIVATE LIMITED Address of Applicant :104B/9, Kishangarh Vasant Kunj, New Delhi - 110070, India New Delhi ----- Name of Applicant : NA Address of Applicant : NA
(86) International Application No	:NA	(72)Name of Inventor : 1)Dr. Mohammad Faiyaz Anwar Address of Applicant :S/o Shekh Abdul Gaffar, D-144, upper ground floor, Gali No-03, Block no-D, Noor Elahai, Ghonda Extension, Yamuna Vihar, North east Delhi – 110053, India Delhi -----
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(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The method for preparation of innovative and semi-natural, smart, high absorptive, super transparent hydrogel, comprising cross-linking a precursor with polysaccharide-based materials like starch/carboxymethylcellulose (CMC)/hyaluronic acid (HYAL)/ guar gum (GG)/ chitosan/alginate/pectin/cellulose/chitin/heparin/peptidoglycan/- carrageenan/ -carrageenan combined with acrylic acid (AA)/acrylonitrile (AN)/ methacrylic acid (MAA)/acrylamide, N-Isopropylacrylamide (NIIPAM)/ Butyl Acrylate (BA)/ 2-Ethylhexyl Acrylate (2-EHA)/Glacial Acrylic Acid (GAA)/Glacial Methacrylic Acid (GMAA)/Diacetone Acrylamide (DAAM)/ Caprolactone Modified Meth(acrylates) (CLMA) using cross-linking agent biocompatible surface modified cellulose nanocrystals (SMCNC)/cellulose microcrystal (CMC) with N,N'-Methylenebisacrylamide (MBA)/epichlorohydrin (ECH)/ethylene glycol dimethacrylate (EGDMA)/poly(ethylene glycol diacrylate) (PEGDA)/genipin/sodium hexametaphosphate (SHMP) and sodium tripolyphosphate (STPP) in presence of initiator ammonium persulphate (APS)/ potassium persulphate (KPS)/benzoyl peroxide (BPO)/ Azobisisobutyronitrile (AIBN). The invention further concerns the semi-natural (60-70% natural polymer used) smart superabsorbent hydrogel obtainable by the method of the invention and the use thereof in many different applications.

No. of Pages : 25 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411004509 A

(19) INDIA

(22) Date of filing of Application :23/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : METHOD FOR AN AI-ENHANCED CYBERSECURITY SYSTEM WITH BEHAVIORAL ANALYSIS

(51) International classification :G06F0021550000, G06N0020000000, G06F0021570000, G06F0021560000, G06F0021620000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Disclosed therein is an AI-Enhanced cybersecurity system with behavioral analysis model, the AI-Enhanced cybersecurity system with behavioral analysis includes using machine learning algorithms to analyze and understand normal user behavior within a networked environment, it provides a more proactive and adaptive defense mechanism, the AI engine, behavioral analysis module and alert and response system. This comprehensive system is designed to provide an adaptive defense mechanism, surpassing the limitations of traditional cybersecurity measures. It also contains an Alert and Response System, Continuous Learning and Evolution, Improved Threat Detection, Adaptive Defense and Reduced False Positives. This system components work with one another to make sure that computer systems don't get compromised by cyber security attacks by attackers, it's adaptive and early warning system makes it superior to other cybersecurity systems in existence and in use and also better than a human counterpart who performs cybersecurity functions.

No. of Pages : 29 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :24/01/2024

(21) Application No.202411004774 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : CUSTOMIZED SPRAYING SYSTEM FOR FIELD CROPS AND A METHOD THEREOF

(51) International classification :B64C0039020000, A01M0007000000, G06Q0010080000, G05D0001000000, B05B0012120000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT CUSTOMIZED SPRAYING SYSTEM FOR FIELD CROPS AND A METHOD THEREOF The present disclosure relates to a customized spraying system (100) for field crops and a method (200) thereof. The system (100) is configured to spray a customized amount of one or more of pesticides or mixture thereof in real time and/or water over a field area of crops having similar or dissimilar varieties and types of crops. The system (100) includes three main devices- a field scanner drone (102), an electronic unit (104), and a field sprayer drone (106). The field scanner drone (102) scans the field area to capture whole image of the field area. The electronic unit (104) is configured to analyze and determine amount of dosage of one or more of the pesticide formulations and/or water and spray thereto through the field sprayer drone (106). Figures 1A, and 1B

No. of Pages : 29 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411004819 A

(19) INDIA

(22) Date of filing of Application :24/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : MELAMINE COATED DECORATIVE FLEXI WOOD VENEER PANEL AND A METHOD FOR MANUFACTURING THE SAME

(51) International classification :B32B0021140000, E04F0013080000, B32B0021040000, B66B0011020000, B32B0021060000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

ABSTRACT MELAMINE COATED DECORATIVE FLEXI WOOD VENEER PANEL AND METHOD FOR MAUFACTURING THE SAME The present invention is for aMelamine Coated Decorative Flexi Wood Veneer Panel (MCDFWVP) and the process for the same where, the method includes a plurality of Commercial Face Wood Veneer (CFWV) and Decorative Wood Veneer (DWV), either natural or recomposed/engineered wood veneer, wherein a Decorative Flexi Wood Veneer Panel (DFWVP) is constructed by arranging two Commercial Face Wood Veneer (CFWV) and one Decorative Wood Veneer (DWV) on top of one another such that the Decorative Wood Veneer (DWV) is the topmost layer. To ensure bonding and strength, the layers of this DFWVP are pressed together using a Hot Press. Lastly to give a finished look, a layer of Melamine based resin is coated on the DFWVP using a roller coater or spray gun of around 80gms/square meter and again pressed using hot press, finishing the product, ensuring that no extra polish/treatment is required and making it further ready for application in furniture and interior industries.

No. of Pages : 16 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :27/01/2024

(21) Application No.202411005488 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN ARTIFICIAL INTELLIGENCE (AI)-BASED ELECTRIC ENVIRONMENTAL CLEANING ROBOT

(51) International classification :G05D0001020000, G07C0005080000, A47L0011400000, H02S0040100000, G05D0001120000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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5)Prof . (Dr.) Dipak Kumar Jana

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8)Ms. Rajni

Name of Applicant : NA

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(57) Abstract :

ABSTRACT The present invention relates to an artificial intelligence (AI)-based electric environmental cleaning robot (100). The artificial intelligence (AI)-based electric environmental cleaning robot (100) comprises a plurality of sensors, an artificial intelligence (AI) processor module, a navigation system module, a cleaning mechanism module, a communication module, a power management module, a user interface module, a safety module, a data logging and analysis module and a compliance and regulation module. The plurality of sensors are configured to collect real-time data on environmental pollutants, environmental conditions, and obstacles. The navigation module is configured to enable the robot (100) to navigate through complex environments, avoid obstacles, optimize cleaning routes, and adapt to changing conditions. The power management module is configured to optimize energy usage, monitor battery levels, and ensure sustained operation of the robot (100). The user interface module is configured to allow manual control, monitoring of cleaning progress, and access to robot (100) status and environmental data.

No. of Pages : 12 No. of Claims : 10

(54) Title of the invention : METHOD AND SYSTEM OF OPTIMIZING RESOURCE UTILIZATION IN CLOUD-BASED DATA PROCESSING PLATFORM

(51) International classification	:G06F0016951000, G06F0011340000, G06Q0010040000, G06F0009500000, H04L0065106900	(71)Name of Applicant : 1)HCL Technologies Limited Address of Applicant :806, Siddharth, 96, Nehru Place, New Delhi - 110019, INDIA Delhi -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
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(62) Divisional to Application Number	:NA	2)Pandu Rangaiah Pabbisetty Address of Applicant :43239 Portofino Terrace, Fremont, CA, 94539 -----
Filing Date	:NA	

(57) Abstract :
METHOD AND SYSTEM OF OPTIMIZING RESOURCE UTILIZATION IN CLOUD-BASED DATA PROCESSING PLATFORM ABSTRACT A method (500) and system (100) for optimizing resource utilization in cloud-based data processing platforms is disclosed. A set of usage metrics of the data cluster is received for each cluster of a plurality of data clusters using a web crawler. A justification based on a predefined threshold is determined corresponding to each of the set of usage metrics of the data cluster through one or more application programming interfaces (APIs). One or more recommendations are generated based on the justification for optimal usage of the data cluster through the one or more APIs. The one or more recommendations are executed through at least one of an associated configuration file or the one or more APIs. [To be published with FIG. 2]

No. of Pages : 28 No. of Claims : 10

(54) Title of the invention : WEB WEAVING: ORCHESTRATING DOMINO DYNAMICS IN DISTRIBUTED SYSTEMS

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date :G06F0009500000, H04L0067100000, G06F0011070000, H04L0067020000, H04L0041080300 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)Anurag Mishra Address of Applicant :H2-612 A Hazel-2 Jasmine Grove, Opposite wave city NH-24 Ghaziabad 201002 ----- 2)Shivani Trivedi 3)Aditi Arora 4)Anju Joshi 5)Seema Luthra 6)Lata yadav 7)AKHILESH KUMAR SRIVASTAVA Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Anurag Mishra Address of Applicant :H2-612 A Hazel-2 Jasmine Grove, Opposite wave city NH-24 Ghaziabad 201002 ----- 2)Shivani Trivedi Address of Applicant :ABES ENGINEERING COLLEGE 9079103946 -- ----- 3)Aditi Arora Address of Applicant :ABES ENGINEERING COLLEGE ----- ----- 4)Anju Joshi Address of Applicant :ABES Engineering College, Ghaziabad ----- -- ----- 5)Seema Luthra Address of Applicant :ABES Engineering College Contact no: 9953173739 ----- 6)Lata yadav Address of Applicant :Christ University Delhi Ncr ----- 7)AKHILESH KUMAR SRIVASTAVA Address of Applicant :ABES ENGINEERING COLLEGE GHAZIABAD -----

(57) Abstract :
Distributed systems, characterized by multiple interconnected components across diverse locations, demand sophisticated orchestration strategies to navigate the complexities of dynamic interactions and potential domino dynamics. This paper explores the concept of Web Weaving as a framework for orchestrating distributed systems effectively. Web Weaving involves the deliberate interconnection of components, forming a resilient web of communication and dependencies. By leveraging an orchestration engine, this approach addresses the challenges posed by domino dynamics, mitigating cascading effects and maintaining system stability. The methodology encompasses a systematic analysis of the distributed system, assessment of potential domino dynamics, and the design and implementation of an orchestration plan. Dependency graphs serve as a predictive tool, facilitating proactive orchestration strategies. Continuous monitoring and optimization sustain the success of orchestration efforts, ensuring adaptability to evolving conditions. Through these principles, Web Weaving emerges as a promising paradigm for orchestrating distributed systems in a manner that fosters resilience, scalability, and reliable performance.

No. of Pages : 19 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :24/01/2024

(21) Application No.202411004911 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM FOR INVENTORY CONTROL AND MANAGEMENT BASED ON IOT AND AI

(51) International classification :G06Q0010080000, G06K0007100000, G06K0017000000,
G06F0011300000, H04L0067120000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to : NA
Application Number :NA
Filing Date :NA
(62) Divisional to Application :NA
Number :NA
Filing Date :NA

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(57) Abstract :
The present disclosure describes a system for tracking store items placed in storage space. With the growing size of inventory, managing and controlling inventory effectively becomes a critical aspect for any business. Managing and taking into account thousands of products every day can easily be a tough task without implementing a proper and dedicated system. This intelligent inventory management system and method, realize the accurate monitoring of inventory at an arbitrary position in go-downs & stores to improve the efficiency of stock retrieval and to monitor stock in a storeroom on a real-time basis. The system includes wireless RFID readers and IoT sensors. RFID is distributed within the storage space in such a manner that at least one store item, having an RFID tag attached, is within an interrogation range of at least one of the wireless RFID readers. The system further includes IoT and AI-based monitoring system, that is used to monitor the stored & stocked items in such a manner that the database is maintained in the stores about inventory robustly so that if there is any possibility of the missing article that can be detectable on a real-time basis without much difficulty. Inventory management has been essential for running a business smoothly.

No. of Pages : 18 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411004917 A

(19) INDIA

(22) Date of filing of Application :24/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A DATA-DRIVEN MARKET DEMAND PREDICTION MODEL

(51) International classification :G06Q0030020000, G06Q0010040000, G06N0020000000, G06Q0030080000, G06F0016951000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr Geeti Sharma Address of Applicant :Professor and Director, Mangalmay Institute of Management & Technology, 9, Knowledge Park II, Greater Noida, Uttar Pradesh 201310 ----- 2)Dr. Shefali Panwar Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr Geeti Sharma Address of Applicant :Professor and Director, Mangalmay Institute of Management & Technology, 9, Knowledge Park II, Greater Noida, Uttar Pradesh 201310 ----- 2)Dr. Shefali Panwar Address of Applicant :Assistant Professor , Mangalmay Institute of Management & Technology, 9, Knowledge Park II, Greater Noida, Uttar Pradesh 201310 -----

(57) Abstract :

ABSTRACT The present invention relates to a data-driven market demand prediction model (100). The data-driven market demand prediction model (100) is a cutting-edge system designed to revolutionize market analysis by integrating advanced data analytics, machine learning, and real-time data processing. Traditional methods often fall short in accurately predicting market demand due to their limited scope and inability to adapt to dynamic conditions. In contrast, our model (100) employs a sophisticated machine learning algorithm that continuously refines its predictions based on historical data, economic indicators, social media sentiment, and seamlessly integrated real-time information. The model (100)'s user-friendly interface empowers businesses to input relevant data, visualize predictions, and make informed decisions, while its adaptability ensures accuracy in forecasting amidst evolving market dynamics. This innovation represents a significant leap forward in enhancing the precision and responsiveness of market demand predictions, providing businesses with a powerful tool to optimize their strategies and navigate the complexities.

No. of Pages : 12 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411004920 A

(19) INDIA

(22) Date of filing of Application :24/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN AUTOMATED DECISION-MAKING SYSTEM FOR TRADE-OFF ANALYSIS AND OPPORTUNITY COST ASSESSMENT

(51) International classification :G06Q0010060000, G06F0003048200, G06N0020000000, G06F0009500000, G16H0050200000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :

TITLE: AN AUTOMATED DECISION-MAKING SYSTEM FOR TRADE-OFF ANALYSIS AND OPPORTUNITY COST ASSESSMENT ABSTRACT The present invention relates to an automated decision-making system for trade-off analysis and opportunity cost assessment. The system for automated decision-making comprises a data integration module, a parameter Customization Interface, an algorithmic trade-off analysis module, an opportunity cost assessment module and a decision optimization engine. The data integration module is configured to gather real-time data from various sources, ensuring data integrity and accuracy. The parameter customization Interface allowing users to define decision criteria and customize weights assigned to different factors. The algorithmic trade-off analysis module utilizing advanced algorithms to analyze trade-offs between multiple factors and criteria, incorporating both quantitative and qualitative data for comprehensive decision support. The opportunity cost assessment module identifying and quantifying opportunity costs associated with each decision option, factoring in potential gains and losses to provide a holistic view of decision implications.

No. of Pages : 11 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411004968 A

(19) INDIA

(22) Date of filing of Application :24/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : ADJUSTABLE MULTIFUNCTIONAL GEOMETRIC RULER

(51) International classification :B43L0013000000, F02B0075320000, G01B0005140000, B43L0007120000, G01B0003560000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

A multifunctional geometric ruler characterized by a main ruler, an auxiliary ruler, a parallel ruler, and a knob, wherein the main ruler has a circular disc with a concentric circular hole at its one end. The auxiliary ruler is an L-shaped ruler with a long arm and a slotted short arm, both arms intersecting at a circular disc with a concentric circular hole and a cylindrical hub. The hub hinges with the hole of the main ruler to permit rotational motion of auxiliary ruler, which can be restrained by a knob. The knob has a transparent top with a center mark to assist alignment of hinge center with the reference point on the drawing sheet. The parallel ruler comprises a main body, a tail and a cross arm, wherein the cross-arm guides straight motion of the parallel ruler relative to auxiliary ruler, and the tail locks the free motion of the parallel ruler.

No. of Pages : 24 No. of Claims : 7

(54) Title of the invention : CONVERGING AI TECHNOLOGIES DATA OPTIMIZATION FOR ERP, FINANCIAL TRANSFORMATION, AND ORDER TO CASH

(51) International classification (86) International Application No (87) International Publication No (61) Patent of Addition to Application Number (62) Divisional to Application Number :G06N0020000000, G06N0003040000, G06N0003080000, G06Q0010060000, G06Q0040000000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)Sudheer Kumar Kothuru Address of Applicant :Solution Architect-Business Process-OTC/GTS, Information Technology, Bausch Health Companies, 601 Griggs Dr, Bridgewater NJ 08807 ----- 2)Sandeep Rangineni 3)Venkata Surendra Kumar 4)Anil Kumar Vadlamudi Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Sudheer Kumar Kothuru Address of Applicant :Solution Architect-Business Process-OTC/GTS, Information Technology, Bausch Health Companies, 601 Griggs Dr, Bridgewater NJ 08807 ----- 2)Sandeep Rangineni Address of Applicant :Data Test Engineer, Information Technology, Pluto TV, West Hills, California, 91304 ----- ----- 3)Venkata Surendra Kumar Address of Applicant :Functional Architect-Finance, Application Service Delivery, Intellectbusiness, 225 Fluor Daniel Dr, Sugar Land, Texas - 77479 ----- 4)Anil Kumar Vadlamudi Address of Applicant :Solution Achitect, Application Service Delivery, Aryadit Solutions, Morrisville, North Carolina - 27560 - -----

(57) Abstract :

The present invention relates to provide converging AI Technologies data optimization for ERP, financial transformation, and order to cash. Departing from conventional methods, this innovative solution employs a dynamic synthesis methodology, integrating advanced machine learning algorithms, neural networks, and natural language processing to optimize data throughout the business lifecycle. Key components include Adaptive Learning Networks (ALNs), enabling continuous adaptation to the business environment; Predictive Data Harmonization for unified, accurate information; Real-time Sentiment Analysis for dynamic strategy adjustments; Blockchain-backed Financial Transactions ensuring security and transparency; Context-Aware Financial Reporting aligning with industry nuances; Automated Order-to-Cash Optimization for streamlined operations; and a Continuous Learning Feedback Loop, fostering system self-improvement. With an intuitive user interface, decision-makers can easily leverage insights.

No. of Pages : 11 No. of Claims : 2

(54) Title of the invention : TRAINING A DEEP LEARNING SYSTEM FOR IMPROVING ELECTRICAL SYSTEM IN MARITIME APPLICATIONS

(51) International classification (86) International Application No (87) International Publication No (61) Patent of Addition to Application Number (62) Divisional to Application Number	:G06Q0010060000, G06N0020000000, G01H0001000000, E02B0017000000, G06Q0010040000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)Mr.Varun Kumar Singh Address of Applicant :HOD, Department of Computer Science and Engineering, Sunder Deep Engineering College, Ghaziabad (Affiliated to AKTU, Lucknow) ----- 2)Mr.Ashif Ali 3)Mr. Ajay Kumar 4)Mr. A.Sadeesh Kumar 5)Mr.Dilip Kumar 6)Prof.(Dr.) Sandeep Gupta 7)Mr.Abhishek Singh 8)Dr.P.Meenalochini Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Mr.Varun Kumar Singh Address of Applicant :HOD, Department of Computer Science and Engineering, Sunder Deep Engineering College, Ghaziabad (Affiliated to AKTU, Lucknow) ---- ----- 2)Mr.Ashif Ali Address of Applicant :Assistant Professor, Department of Computer Science and Engineering Sunder Deep Engineering College, Ghaziabad (Affiliated to AKTU, Lucknow) ----- 3)Mr. Ajay Kumar Address of Applicant :Computer Science & Engineering Department, Inderprastha Engineering College, Ghaziabad, (Affiliated to AKTU, Lucknow) ----- ---- 4)Mr. A.Sadeesh Kumar Address of Applicant :Assistant Professor, Electrical & Electronics Engineering, St. Joseph's College of Engineering, OMR, Chennai - 600119 ----- 5)Mr.Dilip Kumar Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sunder Deep Engineering College, Ghaziabad (Affiliated to AKTU, Lucknow) ----- 6)Prof.(Dr.) Sandeep Gupta Address of Applicant :Director, Sunder Deep Engineering College, Ghaziabad (UP), India (Affiliated to AKTU, Lucknow) ----- 7)Mr.Abhishek Singh Address of Applicant :HoD, Computer Application, Sunder Deep Engineering College, Ghaziabad (UP), India ----- 8)Dr.P.Meenalochini Address of Applicant :Associate Professor, Department of Electrical and Electronics Engineering, Sethu Institute of Technology, Pulloor, Kariapatti 626115 -----

(57) Abstract :
The proposed invention introduces a revolutionary deep learning-based system designed to optimize maritime electrical systems. This innovation combines sensors, data analytics, and advanced machine learning algorithms to predict, prevent, and efficiently manage electrical failures, minimizing downtime, reducing operational costs, and enhancing safety on maritime vessels and offshore platforms. Key features include predictive maintenance, fault detection, and isolation, energy management, real-time decision support, and robust cybersecurity measures. The system's adaptability ensures the continuity of critical functions during emergencies or failures. Additionally, it facilitates compliance with environmental regulations, reduces the carbon footprint of maritime operations, and improves crew morale and safety. Beyond its tangible benefits, this innovation has the potential to transform the maritime industry, creating economic opportunities and driving technological progress within the sector while promoting sustainability and operational excellence on a global scale.

No. of Pages : 21 No. of Claims : 10

(54) Title of the invention : A REMOTE SENSING SYSTEM USING CLOUD COMPUTING AT REAL TIME

(51) International classification	:G06F0009500000, A01C0021000000, A01B0079000000, E21B0007060000, G06F0016110000	(71)Name of Applicant : 1)SURESH GYAN VIHAR UNIVERSITY Address of Applicant :GYAN VIHAR MARG, JAGATPURA, JAIPUR, RAJASTHAN 302017 ----- Name of Applicant : NA Address of Applicant : NA
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Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
A REMOTE SENSING SYSTEM USING CLOUD COMPUTING AT REAL TIME The proposed invention is a comprehensive Agriculture Resilience Index developed using remote sensing data processed and analyzed through Google Earth Engine. The index combines Normalized Difference Vegetation Index (NDVI) data from the MODIS satellite, precipitation data from the CHIRPS dataset, and temperature data from the TerraClimate dataset. The data is processed to compute average values within a defined region of interest (ROI), with a mask applied for cropland areas to ensure relevance. The calculated index is then visualized on a map and can be exported as a GeoTIFF file for further analysis. This novel system provides a robust tool for monitoring and analyzing agricultural systems at an unprecedented scale, contributing to improved agricultural outcomes and helping ensure a sustainable and secure food future.

No. of Pages : 19 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005501 A

(19) INDIA

(22) Date of filing of Application :27/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : PROTOCOL FOR ENHANCING THE PRODUCTION OF KINNOW MANDARIN BY USE OF VARIOUS GROWTH REGULATORS AND MICRONUTRIENTS

(51) International classification :A61K0036752000, A01N0059160000, A01H0006780000, A01H0004000000, A01G0017000000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

The experiment was carried out on Kinnow mandarin (Citrus reticulata Blanco.) to find out the Protocol for enhancing the production of Kinnow Mandarin by use of various growth regulators and micronutrients. The experiment was laid out in Randomized Block Design (RBD) having 10 treatments with three replications each. Foliar application of plant growth regulators and micro nutrients viz. NAA (10 & 20 ppm), 2,4-D (10 & 20 ppm), Zinc sulphate (0.5 %) alone and in combinations were applied twice in the month of April and May on 14 years old Kinnow trees. The fruit growth characters like fruit weight, length, breadth, volume of fruit and fruit retention were recorded at monthly intervals and maximum fruit growth was observed with treatment NAA 20ppm + ZnSO₄ 0.5% followed by 2,4-D 10 ppm +0.5% ZnSO₄ and minimum was found in control T₀.

No. of Pages : 8 No. of Claims : 4

(54) Title of the invention : MACHINE LEARNING FRAMEWORK FOR PROACTIVE CYBERSECURITY THREAT DETECTION

(51) International classification :G06F0021550000, G06N0020000000, G06F0021570000, G06N0003040000, G06N0003080000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
The disclosed invention presents a pioneering machine learning framework designed for proactive cybersecurity threat detection. Leveraging advanced algorithms and a multi-module architecture, the framework analyzes real-time data from diverse sources, including network traffic and system logs, to identify and mitigate potential cybersecurity threats before they can compromise system integrity. The invention not only distinguishes known threats but also employs continuous learning to recognize novel and emerging risks. With modules for data collection, feature extraction, model training, real-time threat detection, and alerting/mitigation, the framework represents a dynamic and adaptive approach to cybersecurity, contributing to a resilient defense mechanism in the face of evolving cyber threats.

No. of Pages : 15 No. of Claims : 4

(54) Title of the invention : EXPLAINABLE AI MODEL FOR TRANSPARENT DECISION-MAKING IN COMPLEX SYSTEMS

(51) International classification :G06N0005040000, G06N0003040000, G06N0020000000, G06K0009620000, G16H0050200000(86) International Application No :NAFiling Date :NA(87) International Publication No : NA(61) Patent of Addition to Application Number :NAFiling Date :NA(62) Divisional to Application Number :NAFiling Date :NA

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(57) Abstract :
The present invention discloses an innovative framework for artificial intelligence (AI) models, prioritizing transparency and interpretability in complex decision-making systems. Through a combination of interpretable feature selection, hierarchical representations, and real-time feedback mechanisms, the disclosed technology aims to bridge the gap between the inherent complexity of advanced AI models and the need for clear, understandable decision pathways. Noteworthy embodiments, such as dynamic decision threshold adjustment and explainable temporal context integration, further contribute to the adaptability and comprehensibility of the model. This invention addresses the critical challenge of AI model opacity, facilitating user trust and understanding across diverse industries, including healthcare, finance, and autonomous systems, thereby establishing a new standard for transparent and explainable AI decision support systems.

No. of Pages : 19 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :27/01/2024

(21) Application No.202411005508 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : EXHAUST TAIL SINKING INDICATOR SYSTEM

(51) International classification :B60Q9/00, G01F23/00, G08B21/18, G08B3/10, G08B5/36, G08B7/06
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention discloses an exhaust tail sinking indicator system (105) in automobiles. The system (105) comprises of a microcontroller (101), Water Detecting sensors (100), LEDs (102), buzzer (104) and connecting wires (103). Where the system (105) uses the microcontroller (101) to collect signal from water level sensing device (100), fixed near the exhaust pipe and sends the signals to the LED light (102) and Buzzer (104), which will be glow and produce a beep sound on the dashboard (106) which warns the driver about the reaching of water into the exhaust manifold pipe.

No. of Pages : 12 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005399 A

(19) INDIA

(22) Date of filing of Application :26/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A MEASUREMENT OF COGNITIVE FUNCTION IN RODENTS: A NOVEL TEST OF NOOTROPIC DRUGS

(51) International classification :A61P0025280000, A61P0025000000, A61B0005160000, A63J0011000000, A01K0001030000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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5)YOGENDRA SINGH

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(57) Abstract :

A MEASUREMENT OF COGNITIVE FUNCTION IN RODENTS: A NOVEL TEST OF NOOTROPIC DRUGS The invention pertains to compositions and techniques for increasing memory and associated functions such as alertness, attention, focus, and learning processing. This maze apparatus is use for assess the cognition and behavioral assay for rodents and it has been validated to assess the pharmacological activity of nootropic agents and to identify brain regions and mechanisms responsible for this behavior. In short, rats or mice are placed at the entry point of the maze and time taken by the mice to reach at the other side by crossing the maze are recorded by a watch or video-tracking system. At a very low cost, this simple-to-build apparatus would allow for unbiased, human error free measurements

No. of Pages : 16 No. of Claims : 10

(54) Title of the invention : METHOD OF SITE SUITABILITY ANALYSIS TO ESTABLISH A RELIEF CAMP AND DELINEATION OF AN EVACUATION ROUTE PLAN TO AVOID FLOOD DISASTER

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	:G06Q0050260000, G06Q0010040000, E02B0003100000, G08B0007060000, G06Q0090000000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)SURESH GYAN VIHAR UNIVERSITY Address of Applicant :GYAN VIHAR MARG, JAGATPURA, JAIPUR, RAJASTHAN 302017 ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)DR. SURAJ KUMAR SINGH Address of Applicant :SURESH GYAN VIHAR UNIVERSITY, GYAN VIHAR MARG, JAGATPURA, JAIPUR, RAJASTHAN 302017 ----- 2)DR. SHRUTI KANGA Address of Applicant :DEPARTMENT OF GEOGRAPHY, SCHOOL OF ENVIRONMENT & EARTH SCIENCES, CENTRAL UNIVERSITY OF PUNJAB, BATHINDA-151401 --- -----

(57) Abstract :
METHOD OF SITE SUITABILITY ANALYSIS TO ESTABLISH A RELIEF CAMP AND DELINEATION OF AN EVACUATION ROUTE PLAN TO AVOID FLOOD DISASTER Urban planners and residents of the city around the world face a big challenge as a result of rising urban flood patterns. Urban flooding issues can range from very minor occurrences to major occurrences that cause cities to flood for a few hours to several days. As a result, there may be a wide range of effects, including temporary population displacement, interruption of public infrastructure, deterioration of water quality, and the potential for diseases. Urban flooding creates significant challenges that are exacerbated by climate change, which has negative effects on rainfall patterns and gaps in intra-urban rainfall distribution. Natural rivers and watercourses have been hampered by impromptu construction and the invasion of huge dwellings. Therefore, this study has taken up an initiative to prepare a best route map to take to avoid flooding along with the location of the relief camp for evacuation purposes. This technique can be applied to emergency planning for potential flood incidents and will aid in Panchayat disaster preparedness planning. Study based on this patent will virtually boost the flood plain's potential usage in land use and catastrophe management.

No. of Pages : 10 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005401 A

(19) INDIA

(22) Date of filing of Application :26/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A MEASUREMENT OF MOTOR FUNCTION IN RODENTS: A NOVEL TEST OF CATALEPSY

(51) International classification :A61P0025320000, A61B0005000000, A01K0001030000, G01M0017007000, H04L0043500000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

A MEASUREMENT OF MOTOR FUNCTION IN RODENTS: A NOVEL TEST OF CATALEPSY Catalepsy is a disorder which has a characteristic feature of muscle stiffness and poor response to any external stimulus, the limbs stay in the same position in which they are placed. Neuroleptic drugs may cause a state of catalepsy. The block test was used to assess the cataleptic reaction to haloperidol in dystonic animals. The test uses a half open curve shape plastic cylindrical block. This experiment would measure whether or not the subject has ability to do corrective movements after imposed stances resulting muscle stiffness. Testing is being carried out in dim white-light illumination conditions (about 150 lux). Subjects will be transferred into a research area and permitted to acclimate for at least 10 minutes just prior the experiment. After the experiments, the mice will be sent back to their cages immediately. The test is conducted using digital recording equipment. All testing happens during the dark phase of the photoperiod or light cycle. Testing is done under dim white-light illumination (about 150lux).

No. of Pages : 14 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :27/01/2024

(21) Application No.202411005509 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SMART LIVE BUS POSITIONING SYSTEM

(51) International classification :A61B0017000000, G06Q0010080000, G16H0020130000, A61B0090000000, G06K0017000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

SMART LIVE BUS POSITIONING SYSTEM Abstract The present invention discloses a smart RFID based live bus positioning systems on the bus stop before 1km. In the present invention, the system (1) comprises of a Microcontroller (2), RFID reader (3), RFID Scanner (4), RFID Tag (5), Amplifier (6), DF Mini player (7), WIFI Module (8), GPS module (9), Speaker (10), LCD/ HMI (11), Tracking system (12), server (13) and bus (14). The system (1) utilizes strategically placed RFID tags (5) along the bus route. when a bus (14) equipped with an RFID scanner (4) detects a tag (5), the embedded microcontroller (2) extracts critical data like location and schedule. This data, along with the bus's real-time GPS coordinates is then transmitted to a central server (13) via a WiFi connection (9). Additionally, the system incorporates a multilingual announcement system with speaker (10) and voice playback (7), providing stop names in different languages for enhanced passenger convenience.

No. of Pages : 14 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005510 A

(19) INDIA

(22) Date of filing of Application :27/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : IOT-BASED CRITICAL BATTERY INDICATOR FOR FUEL INJECTION (FI) BIKES

(51) International classification :B60L3/00, B60L50/50, B60L58/13, G01R31/371, G16Y40/10, H01M10/42, H01M10/44, H02J7/00

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Abstract The present invention discloses an IoT-based critical battery indicator for fuel injection (FI) bikes. In the present invention, IoT-based critical battery indicator (1) comprises of a Microcontroller (2), transmission system (3), driven system (4), buzzer (5), LED display (6), mobile charging point (7), battery (8), power supply (9), battery management system (BMS) along with charging and discharging system (10), and other devices (11) attached to the bikes. The present invention will cut off the power supply (9) to any additional component attached to battery (8) in the case when battery goes below the critical level.

No. of Pages : 13 No. of Claims : 4

(54) Title of the invention : MOVING VEHICLE INDICATOR SYSTEM

(51) International classification (86) International Application No (87) International Publication No (61) Patent of Addition to Application Number (62) Divisional to Application Number :B60Q0009000000, G08G0001096700, B60W0030095000, B60Q0001260000, G08G0001090000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)GLA University, Mathura Address of Applicant :17km Stone, NH-2, Mathura-Delhi Road P.O. Chaumuhan, Mathura, Uttar Pradesh 281406 Mathura - ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Vikas Sharma Address of Applicant :Department of Mechanical Engineering, GLA University, 17km Stone, NH-2, Mathura-Delhi Road P.O. Chaumuhan, Mathura, Uttar Pradesh 281406. Mathura ----- -- ----- 2)Yash Agrawal Address of Applicant :Department of Mechanical Engineering, GLA University, 17km Stone, NH-2, Mathura-Delhi Road P.O. Chaumuhan, Mathura, Uttar Pradesh 281406. Mathura ----- -- ----- 3)Anuj Sharma Address of Applicant :Department of Mechanical Engineering, GLA University, 17km Stone, NH-2, Mathura-Delhi Road P.O. Chaumuhan, Mathura, Uttar Pradesh 281406. Mathura ----- -- -----

(57) Abstract :
Abstract The present invention discloses a moving vehicle indicator system for blind corners on the road to shows the warning to the driver for the coming vehicle in opposite/crossing/corner on the road that reduces the road accidents. The moving vehicle indicator system (105) comprises of a microcontroller (101), IR sensors (100), LEDs (102), LCD display (103) and connecting wires (104), where the system (105) makes the LED light (102) glow and the LCD display (103) displays a message BE SLOW to the driver of both sides of the road on the blind corners.

No. of Pages : 13 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005512 A

(19) INDIA

(22) Date of filing of Application :27/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : CUBE MOULD WITH A DETACHABLE LIFTING HANDLE

(51) International classification :G16H0010400000, B65G0007120000, B66C0001020000, A47J0037100000, A61G0007100000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Abstract The present invention discloses a cube mould with a detachable lifting handle. The present invention consists of cube mould (100) of 150 mm with detachable lifting handle (106). This cube has C-shape groove (105) on big side panels (103) of it in which the lifting handle (106) can be inserted for lifting the cube mould to move from one place to another place for performing the cube test of concrete to determine its compressive strength. The lifting handle (106) can also be detached from the cube mould (100) when demoulding the cube mould to put the cube specimen to curing tank. The cube mould (100) provides the lab technician to lift the cube mould single handedly. This cube mould reduces the chance of accidental fall of cube mould by slipping from hands of lab technician due to presence of oil/grease. The cube mould (100) reduces the time of cube casting as lab technician can lift the two cube moulds at a time.

No. of Pages : 14 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411004999 A

(19) INDIA

(22) Date of filing of Application :24/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : RETRACTABLE SWAB DEVICE

(51) International classification :A61F0013400000, A61B0010020000, B29C0049040000, A61B0010000000, G01N0001020000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

A retractable swab device (100) is disclosed. The device (100) includes a plastic swab stick (102) configured to be inserted into a hollow plastic tube (104), a shaft spring (106) attached within the hollow plastic tube (104) and configured to facilitate an in and out retractable movement of the swab stick (102) by pressing a clutch button (116) located at the rear end of the device (100), and a cotton part situated at the interior end of the plastic swab stick (102) and configured to be pushed out after reaching a desired collection site and retracted back inside the hollow plastic tube (104) with the release of the clutch button (116) after collecting a specimen.

No. of Pages : 15 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :24/01/2024

(21) Application No.202411005003 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD FOR IDENTIFYING, CLASSIFYING, AND SEGREGATING METAL PLATES FROM JUNK MATERIALS

(51) International classification :G06T0007000000, G06T0007110000, H04N0005232000, G06N0003080000, G05D0001020000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Chitkara University Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ----- 2)Chitkara Innovation Incubator Foundation Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)SETHI, Monika Address of Applicant :Associate Professor, Department of Computer Science and Engineering, Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ----- 2)KHULLAR, Vikas Address of Applicant :Associate Professor, Department of Computer Science and Engineering, Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ----- 3)KANSAL, Isha Address of Applicant :D-8, 9 Tej Bagh Colony, Sanour Road, Patiala – 147110, Punjab, India. Patiala ----- 4)SNEHI, Jyoti Address of Applicant :# 505, Trishla Plus Homes, Peer Mushalla, Zirakpur - 140603, Punjab, India. Zirakpur ----- 5)KUMAR, Rajeev Address of Applicant :H. No. 816, Sector 03, Kurukshetra, Haryana - 136118, India. Kurukshetra ----- 6)SHARMA, Akshit Address of Applicant :VPO, Sukhpura Maur Teh Tapa, Barnala - 148108, Punjab, India. Barnala ----- 7)SHARMA, Nishant Address of Applicant :H. No. 1767, Phase 3B2, Mohali, Punjab - 160059, India. Mohali -----

(57) Abstract :

The present disclosure provides a system (100) for the classification and segregation of metal plates. The system (100) comprises a processing device (102) configured to capture, using a camera (104-1) and sensors (104-2), images and field spectrum associated with an AOI having plates and additional materials therein, extract, using one or more trained learning engines (206), attributes pertaining to metal sheets from the captured images and/or the captured field spectrum, and correspondingly identify and categorize the metal plates in the AOI based on the extracted attributes and further identify one or more regions of interest (ROI) in the AOI having the respective identified metal plates. The system (100) further includes a robotic device (106), where the processing device (102) is configured to actuate and control the robotic device (106) to pick and segregate the categorized metal plates from the ROIs.

No. of Pages : 22 No. of Claims : 10

(54) Title of the invention : AI-DRIVEN STRATEGIC DECISION SUPPORT SYSTEM FOR BUSINESS LEADERS: A COGNITIVE ANALYTICS APPROACH TO ENHANCE DECISION-MAKING IN DYNAMIC MARKETS

(51) International classification :G06Q0010060000, G16H0050200000, G06N0020000000, G06Q0010100000, G06N0005040000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr. Praveen Kumar Address of Applicant :Assistant Professor, USMS, GGSIPU, New Delhi, India ----- 2)Dr. Shoieb Ahamed 3)Dr. K. Raghuvveer 4)Dr. M. Trupthi 5)Mr.Nishanth R 6)Dr. Monika Sharma 7)Ms. Shweta Vilas Ghorpade 8)Dr. R.Shanthy 9)R V Sudha 10)R.Vijaya Arjunan 11)D. Cenitta 12)Mrs. V. Priyadharsini Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Praveen Kumar Address of Applicant :Assistant Professor, USMS, GGSIPU, New Delhi, India ----- 2)Dr. Shoieb Ahamed Address of Applicant :Assistant Professor and Head, Department of Computer Science, Government First Grade College, SORAB -577429, Shimoga, Karnataka, India ----- 3)Dr. K. Raghuvveer Address of Applicant :Sr. Assistant Professor, Department of Business Management, V.R. Siddhartha Engineering College, Kanuru, A.P-520007, India ----- 4)Dr. M. Trupthi Address of Applicant :Associate Professor, Department of Artificial Intelligence, Anurag University, Venkatapur, Ghatkesar, Medchal, Telangana, India ----- 5)Mr.Nishanth R Address of Applicant :Data Scientist, Great Lakes E-Learning Service Pvt. Ltd, 1st floor, Prince Infocity-II, OMR Road, Kandanchavadi, Chennai-96, Tamilnadu, India ----- 6)Dr. Monika Sharma Address of Applicant :Assistant Professor, Department of Management Studies, The Technological Institute of Textile and Sciences, Bhiwani, Haryana, India ----- 7)Ms. Shweta Vilas Ghorpade Address of Applicant :Assistant Professor, Department of Computer Science & Engineering (Data Science), P.E.S. College of Engineering, Nagsenvana, Aurangabad 431001, Maharashtra, India ----- 8)Dr. R.Shanthy Address of Applicant :Assistant Professor, Department of Computer Science, Sona College of Arts and Science, Salem, Tamil Nadu, India ----- 9)R V Sudha Address of Applicant :Assistant Professor, Department of Computer Science and Business Systems, Knowledge Institute of Technology, Kakapalayam, Selliampalayam, Tamil Nadu, India ----- 10)R.Vijaya Arjunan Address of Applicant :Additional Professor, Department of Computer Science and Engineering, Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal, Karnataka-576104, India ----- 11)D. Cenitta Address of Applicant :Assistant Professor Sr. Scale, Department of Computer Science and Engineering, Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal, Karnataka-576104, India -- 12)Mrs. V. Priyadharsini Address of Applicant :Assistant Professor, Department of Artificial Intelligence and Data Science, Akshaya College of Engineering and Technology, Bagavathipalaym Road, Kinathukadavu, Coimbatore - 642109, Tamilnadu, India -----

(57) Abstract :
The AI-Driven Strategic Decision Support System disclosed herein represents a groundbreaking advancement in the realm of business intelligence. Integrating cutting-edge artificial intelligence and cognitive analytics, this system aims to empower business leaders in dynamic markets by providing real-time, data-driven insights. Key features include predictive analytics for forecasting future market trends and a collaborative decision-making workspace facilitating seamless communication among teams. With a focus on adaptability, security, and continuous learning, this innovation revolutionizes strategic decision-making, offering an agile solution that enables organizations to navigate complex market dynamics and stay ahead of the curve.

No. of Pages : 17 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :25/01/2024

(21) Application No.202411005100 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : BRAIN SIGNALS TRANSFORMATION INTO AUDIO SPEECH FOR EPILEPSY DISEASE

(51) International classification :A61P0025080000, A61B0005000000, A61B0005369000, A61B0005291000, A61N0001360000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The neurological condition known as epilepsy is typified by the occurrence of seizures. The main data source for epilepsy research is the electroencephalogram signals. With the use of this technology, those who are paralyzed and confined to a locked state will be able to talk again. Generalized seizures and partial seizures are the two primary forms of epileptic seizures. These kinds are separated into a number of smaller groups. The timing and length of the seizures cannot be predicted using any reliable prediction models. The main diagnostic method for identifying epilepsy is electroencephalography (EEG). It's possible that the seizures are not convulsive. Seizures are divided into multiple groups. These classifications include seizure intensity, origin region, and duration.

No. of Pages : 12 No. of Claims : 1

(54) Title of the invention : SYSTEM FOR REAL-TIME VOICE FEEDBACK FOR ASSISTING VISUAL ARTS CREATION BY VISUALLY IMPAIRED ARTISTS

(51) International classification (86) International Application No (87) International Publication No (61) Patent of Addition to Application Number (62) Divisional to Application Number :G10L0015220000, G06F0003160000, G09B0021000000, G06T0011200000, A61H0003060000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)SAUMAY GARG Address of Applicant :128, SECTOR-1, CHIRANJEEV VIHAR ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)SAUMAY GARG Address of Applicant :CHIRANJEEV VIHAR, GHAZIABAD 201002, INDIA; Ghaziabad ----- 2)SHRUTI JAISWAL Address of Applicant :DEPT. COMPUTER SCIENCE & ENGINEERING, JAYPEE INSTITUTE OF INFORMATION TECHNOLOGY, NOIDA, INDIA Gautam Buddha Nagar ----- 3)SEEMA MITTAL Address of Applicant :DEPT. ELECTRONICS & COMMUNICATION ENGINEERING, GALGOTIAS UNIVERSITY, GREATER NOIDA, INDIA Gautam Buddha Nagar ----- 4)SULEKHA SAXENA Address of Applicant :DEPT. ELECTRONICS & COMMUNICATION ENGINEERING, AJAY KUMAR GARG ENGINEERING COLLEGE, GHAZIABAD, INDIA Ghaziabad - -----

(57) Abstract :

The present invention discloses a portable voice assistant designed to assist visually impaired artists in engaging with visual arts. The system comprises a small mounted camera, precise position sensors, and an intelligent visual-language model. The camera captures visual data from a drawing canvas, positioned on a bed of sensors, and the interaction between components is orchestrated to provide dynamic voice feedback. The device allows blind artists to attach their preferred drawing tools, enabling a seamless creative process. The invention overcomes limitations of existing technologies by generating detailed and comprehensive real-time audio descriptions of artwork without being cumbersome in setup.

No. of Pages : 25 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :25/01/2024

(21) Application No.202411005141 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A DEVICE FOR PROVIDING A PHYSIOLOGICAL DISORDER INDICATION AND A METHOD THEREOF

(51) International classification :A61B5/00, A61B5/08, A61B5/145, A61B5/24, G16H50/20
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Disclosed is a device (104) having a memory (208) and at least one processor (206) is in communication with the memory (208) and configured to determine an insulin resistance value based on a glucose level value received as a user input (102). The at least one processor (206) is configured to receive a sleep apnea severity value based on the user input (102) and correlate the sleep apnea severity value, the insulin resistance value, and a predefined sleep apnea value. The at least one processor (206) is configured to determine an indication of a physiological disorder based on the correlation indicating that the sleep apnea severity value exceeds the predefined normal range. The indication of the physiological disorder corresponds to a state of elevated sugar level in the user's blood. The at least one processor (206) is configured to display the physiological disorder indication on a display screen.

No. of Pages : 22 No. of Claims : 7

(54) Title of the invention : ADAPTIVE CYBERSECURITY SYSTEM: AI-DRIVEN THREAT DETECTION AND MITIGATION

(51) International classification	:G06N0020000000, G06F0021570000, G06F0021550000, G06F0021560000, G06Q0010060000	(71)Name of Applicant : 1)Sanjay Kumar Rai Address of Applicant :Research Scholar, Department of FPM, Jaipuria Institute of Management, Noida, UP -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number	:NA	1)Sanjay Kumar Rai
Filing Date	:NA	Address of Applicant :Research Scholar, Department of FPM, Jaipuria Institute of Management, Noida, UP -----
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
This invention pertains to an Adaptive Cybersecurity System with AI-Driven Threat Detection and Mitigation. The system continuously learns from network data, identifies anomalies, and adapts in real-time to emerging cyber threats. It incorporates a dynamic threat modeling component that assesses risks and prioritizes mitigation efforts based on real-time threat intelligence. By contextualizing alerts within the environment and behavior patterns, the system effectively reduces false positives in cybersecurity alerts. It seamlessly integrates into existing cybersecurity infrastructure while providing continuous self-improvement through the refinement of threat detection algorithms based on historical data. This adaptive and proactive cybersecurity approach empowers organizations to allocate resources strategically, optimize cybersecurity personnel and tools, and respond swiftly to cyber incidents. The system offers valuable insights into emerging threats and vulnerabilities, enabling data-driven decision-making for enhanced cybersecurity.

No. of Pages : 27 No. of Claims : 10

(54) Title of the invention : NEUROMORPHIC COMPUTING: BRAIN-INSPIRED HARDWARE FOR EFFICIENT AI PROCESSING

(51) International classification	:G06N0003040000, G06N0003063000, G06F0003010000, G06N0003080000, G06Q0010060000	(71)Name of Applicant : 1)Sanjay Kumar Rai Address of Applicant :Research Scholar / FPM, Jaipuria Institute of Management, Noida -----
(86) International Application No	:NA	Name of Applicant : NA
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Filing Date	:NA	Address of Applicant :Research Scholar / FPM, Jaipuria Institute of Management, Noida -----
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
Neuromorphic computing, inspired by the human brain's efficiency and adaptability, presents an innovative hardware solution for AI processing. This technology's potential extends across diverse industries, offering energy-efficient and real-time data processing, advanced sensory perception, and continuous learning capabilities. It enhances robotics, enabling autonomous navigation in dynamic environments, and accelerates healthcare with faster diagnosis and personalized treatment plans. Artificial perception reaches new heights, empowering autonomous vehicles with human-level decision-making skills. In cybersecurity, it provides proactive threat detection and adaptation. Edge devices benefit from energy-efficient AI processing. Moreover, neuromorphic computing fosters brain-computer interfaces and promotes the coevolution of hardware and software. Despite challenges, it promises a future where adaptable, efficient, and intelligent AI systems seamlessly integrate into society, transforming industries and enhancing the human experience.

No. of Pages : 22 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411004511 A

(19) INDIA

(22) Date of filing of Application :23/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : LOW GI PROTEIN-POLYPHENOL NANOCONJUGATES CONTAINING FUNCTIONAL MODEL SOUP BASE AND ITS METHOD OF PREPARATION

(51) International classification :A21D 2/36 , A23L 11/00, A23L 23/10, A23L 27/40, A23L 33/105, A23L 7/10 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Sant Longowal Institute of Engineering and Technology Address of Applicant :Administration Block, SLIET Longowal, SLIET Rd, Punjab 148106, India ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Rimpi Foujdar Address of Applicant :Department of Food Technology, Haldia Institute of Technology, Haldia, West Bengal, India ----- ----- 2)Prof Manab Bandhu Bera Address of Applicant :Department of Food Engineering & Technology, Sant Longowal Institute of Engineering & Technology, Longowal-148106, Punjab, India ----- 3)Prof Harish Kumar Chopra Address of Applicant :Department of Chemistry, Sant Longowal Institute of Engineering & Technology, Longowal-148106, Punjab, India -----

(57) Abstract :

A low GI protein-polyphenol nanoconjugates containing functional model soup base comprising of: Lysine modified zein-pomegranate peel purified ellagitannin nanoconjugate (LY-M-Z-PE-NCs); and a model soup base mixture comprising Roasted Kutki millet flour (RKMF), Oats flour; Roasted Chickpea flour (RCPF), Kutki millet starch; Soymilk powder, Soy protein isolate, Salt and Rice bran oil in a ratio range of 15-35:20-40:20-40:3:1:8.5:2.5:3 (w/w) respectively. A method of preparing low GI protein polyphenol nanoconjugates containing functional model soup base comprising the steps of: roasting of Kutki millet flour and chickpea flour separately; grounding of the roasted Kutki millet flour (RKMF) and roasted chickpea flour (RCPF); sieving of the ground RKMF and RCPF; mixing of the sieved RKMF, RCPF, oats flour, kutki millet starch, soymilk powder, soy protein isolate, salt and rice bran oil to obtain a model soup base mixture; incorporating LY-M-Z-PE-NCs powder to the model soup base mixture to form nanoconjugates containing functional model soup base.

No. of Pages : 19 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :23/01/2024

(21) Application No.202411004522 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : CLUSTER ELECTRIC VEHICLE CHARGING BEHAVIOR OPTIMIZATION METHOD BASED ON DEEP REINFORCEMENT LEARNING

(51) International classification :G06Q0010060000, B60L0053630000, G06Q0050060000, B60L0053660000, G06Q0030020000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :

The proposed invention introduces a system and method for optimizing electric vehicle (EV) charging behavior within clustered charging stations, utilizing deep reinforcement learning algorithms. By continuously adapting to real-time conditions, such as EV arrival patterns, station availability, grid capacity constraints, and user preferences, the system minimizes congestion, reduces waiting times, and enhances the overall charging experience. This technology not only promotes the transition to electric mobility by efficiently managing charging infrastructure but also supports the integration of renewable energy sources, thereby reducing greenhouse gas emissions. Strategically placed clustered charging stations offer convenient access to multiple charging points, addressing the growing demand for EV charging. The innovation aligns with global sustainability goals, advancing the adoption of electric vehicles and reshaping the future of cleaner and more sustainable transportation.

No. of Pages : 22 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :23/01/2024

(21) Application No.202411004565 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : AROMATIC HERBAL FORMULATION FOR DEMENTIA MANAGEMENT THROUGH OLFACTORY INDUCTION

(51) International classification :A61K0036810000, A61K0036670000, A61K0036530000, A61K0036537000, A61P0025240000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT AROMATIC HERBAL FORMULATION FOR DEMENTIA MANAGEMENT THROUGH OLFACTORY INDUCTION The invention pertains to an innovative aromatic herbal formulation designed for the management of dementia. The formulation comprises extracts from Withania somnifera, Salvia rosmarinus, and Piper nigrum, known for their pharmacological properties. The inventive approach involves exploiting olfaction as a rapid memory inducer by administering the herbal extracts through aroma. The study includes a comprehensive methodology, from plant sampling to biological testing on Drosophila melanogaster, demonstrating positive cognitive development. The quantification of marker compounds through HPLC adds scientific rigor. While promising, further clinical trials are necessary to validate the efficacy and safety of this aromatic herbal concoction for human dementia management

No. of Pages : 12 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411004567 A

(19) INDIA

(22) Date of filing of Application :23/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SYSTEM FOR GENERATING NUTRITIONAL SCORES FOR PACKED FOOD SAUCES

(51) International classification :A23L0023000000, G06N0020200000, G06K0009620000, G16H0020600000, G09B0019000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Disclosed herein is a system (100) for generating nutritional scores for packed food sauces employing artificial intelligence to generate nutritional scores for packed food sauces. The system (100) comprising a data acquisition module (102) responsible for collecting sauce-related data, an AI model development module (104) incorporating a machine learning algorithm for training, and a user input module (106) facilitating interaction through barcode scanning. The system also includes a sauce identification module (108) and an AI-powered analysis module (110) for scrutinizing ingredients and nutritional content. A nutritional score generation module (112) calculates scores, while a display result module (114) presents nutritional scores in a clear format. A feedback loop module (116) collects user feedback to refine the AI model iteratively. Furthermore, an impact on the food industry module (118) and a benefit to consumers module (120) contribute to providing information and personalized guidance for making informed choices about various sauces.

No. of Pages : 17 No. of Claims : 10

(54) Title of the invention : A SAFE AND EFFICIENT PROCESS FOR THE PREPARATION OF EDOXABAN OF FORMULA I AND SALTS THEREOF

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	:A61P0003100000, G01N0033500000, A61P0011060000, A61P0019080000, A61P0005180000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)IOL CHEMICALS AND PHARMACEUTICALS LIMITED Address of Applicant :NO. 85, INDUSTRIAL AREA - A, LUDHIANA, PUNJAB 141003, INDIA LUDHIANA ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)SUMIT S. CHOURASIYA Address of Applicant :IOL CHEMICALS AND PHARMACEUTICALS LIMITED, NO. 85, INDUSTRIAL AREA - A, LUDHIANA, PUNJAB 141003, INDIA LUDHIANA ----- 2)BALTHU LINGAI Address of Applicant :IOL CHEMICALS AND PHARMACEUTICALS LIMITED, NO. 85, INDUSTRIAL AREA - A, LUDHIANA, PUNJAB 141003, INDIA LUDHIANA ----- 3)VIPIN KUMAR Address of Applicant :IOL CHEMICALS AND PHARMACEUTICALS LIMITED, NO. 85, INDUSTRIAL AREA - A, LUDHIANA, PUNJAB 141003, INDIA LUDHIANA ----- 4)SHYAMBARAN GANGRAJ DHURIYA Address of Applicant :IOL CHEMICALS AND PHARMACEUTICALS LIMITED, NO. 85, INDUSTRIAL AREA - A, LUDHIANA, PUNJAB 141003, INDIA LUDHIANA ----- 5)GOVIND SINGH Address of Applicant :IOL CHEMICALS AND PHARMACEUTICALS LIMITED, NO. 85, INDUSTRIAL AREA - A, LUDHIANA, PUNJAB 141003, INDIA LUDHIANA ----- 6)SACHIN KUMAR SHARMA Address of Applicant :IOL CHEMICALS AND PHARMACEUTICALS LIMITED, NO. 85, INDUSTRIAL AREA - A, LUDHIANA, PUNJAB 141003, INDIA LUDHIANA ----- 7)ABHISHEK Address of Applicant :IOL CHEMICALS AND PHARMACEUTICALS LIMITED, NO. 85, INDUSTRIAL AREA - A, LUDHIANA, PUNJAB 141003, INDIA LUDHIANA ----- 8)DEEPAK KUMAR Address of Applicant :IOL CHEMICALS AND PHARMACEUTICALS LIMITED, NO. 85, INDUSTRIAL AREA - A, LUDHIANA, PUNJAB 141003, INDIA LUDHIANA ----- 9)KRISHNA KUMAR YADAV Address of Applicant :IOL CHEMICALS AND PHARMACEUTICALS LIMITED, NO. 85, INDUSTRIAL AREA - A, LUDHIANA, PUNJAB 141003, INDIA LUDHIANA -----

(57) Abstract :
ABSTRACT: A process for the preparation of compound of Formula I comprising contacting compound of Formulae INT-A and INT-B in a aromatic hydrocarbon solvent to obtain compound of Formula EDO-01 which intern via EDO-02 is converted into compound of Formula I by contacting said compound of EDO-02 with compound of Formula INT-C in the presence of a coupling agent hexafluorophosphate azabenzotriazole tetramethyl uronium (HATU) and diisopropylethylamine as a base.

No. of Pages : 32 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :23/01/2024

(21) Application No.202411004675 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : HANDHELD ELECTROSPINNING APPARATUS

(51) International classification :D01D0005000000, A61M0005320000, G01N0027416000, B60R0016023000, H03F0001020000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Disclosed is a handheld electrospinning machine (100) that includes a housing (102), an electrical unit (104), and a terminal module (130). The electrical unit (104) includes a power source (120), a first amplifier (126), and a second amplifier (128). The power source (120) is used to provide potential difference at a predefined input voltage. The first amplifier (126) is used to amplify the input voltage to a first predetermined voltage. The second amplifier (128) is used to amplify the voltage from the first predetermined voltage to a second predetermined voltage. The terminal module (130) includes a first terminal (140) used to electrically couple to a positive terminal of the second amplifier (128) to a needle (116) of the syringe (106) and a second terminal (142) used to couple a ground terminal (132) to a specimen.

No. of Pages : 24 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :23/01/2024

(21) Application No.202411004685 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : INTELLIGENT GRID INTEGRATION AND SCHEDULING FOR EFFICIENT ELECTRIC VEHICLE CHARGING

(51) International classification :B60L53/51, B60L53/52, B60L53/63, B60L53/64, G05B23/02, G06N20/00, G06N3/08, H02J3/32
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
Abstract The Intelligent Grid Integration and Scheduling for Efficient Electric Vehicle Charging system is a transformative solution for seamlessly incorporating electric vehicles (EVs) into existing power grids. Employing advanced technologies such as real-time data monitoring, predictive analytics, and bidirectional energy flow (V2G), the system dynamically adapts EV charging schedules. It optimizes resource utilization by aligning with grid conditions, enhances grid stability through renewable energy integration, and empowers users with customizable preferences. The system's orchestration of renewable energy sources ensures a sustainable charging ecosystem, minimizing reliance on non-renewable energy. With a user-friendly interface, real-time feedback, and robust cybersecurity, this innovation revolutionizes EV charging, fostering a harmonious relationship between EVs and the power grid while advancing the goals of efficiency, sustainability, and resilience in urban environments.

No. of Pages : 17 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :23/01/2024

(21) Application No.202411004695 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : COMPOSITION AND METHOD FOR PREPARING AN HERBAL PASTILLE

(51) International classification :A61K0009000000, A61P0003060000, A61K0036906600, A61K0031122000, A61P0009000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

A composition and method for preparing an herbal pastille is provided. The composition involves an antioxidant Coenzyme Q10 and an herbal extract having extract of Curcuma longa. The herbal Pastille exhibit a maximum drug release of 95.30% in a duration of 30 minutes, resulting in fast in-vitro release. The herbal Pastille is specifically formulated to have antihyperlipidemic effects, helping to reduce high lipid levels and promote cardiovascular health. The herbal Pastille may also have antidiabetic properties and anti-cancer properties, potentially providing additional health benefits. The herbal Pastille offers an economical option for managing hyperlipidemia, potentially reducing healthcare costs for patients. The herbal Pastille can potentially benefit a wider population, including individuals with dysphagia, pediatrics, and geriatric patients who may have difficulty swallowing traditional medications.

No. of Pages : 30 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :23/01/2024

(21) Application No.202411004696 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A NATURAL CHOCOLATE COMPOSITION AND A METHOD FOR PREPARING THE SAME

(51) International classification :C12N0015820000, A23L0019000000, A23L0027300000, C07K0016100000, A23G0001400000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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Address of Applicant :Chitkara University School of Maritime Studies, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

(57) Abstract :

The present invention relates to technical field of natural edible composition. In particular, the present invention is directed to a natural chocolate composition prepared from puree or pulp of various fruits, natural flavours, natural sweeteners, natural thickening agents, and the like; and to a method for preparing the same.

No. of Pages : 17 No. of Claims : 6

(54) Title of the invention : DIGITAL STORYTELLING MEDIA SYSTEM FOR ENHANCED HISTORY EDUCATION

(51) International classification :H04L0067500000, G09B0019000000, G06N0005020000, G09B0005000000, G06F0016438000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)BANASTHALI VIDYAPITH Address of Applicant :BANASTHALI VIDYAPITH, P.O. BANASTHALI, BANASTHALI, RAJASTHAN, INDIA, 304022 JAIPUR Jaipur ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)PROF. INA SHASTRI Address of Applicant :BANASTHALI VIDYAPITH, P.O. BANASTHALI, BANASTHALI, RAJASTHAN, INDIA, 304022 JAIPUR Jaipur ----- 2)DR. ANSHUMAN SHASTRI Address of Applicant :BANASTHALI VIDYAPITH, P.O. BANASTHALI, BANASTHALI, RAJASTHAN, INDIA, 304022 JAIPUR Jaipur ----- 3)DR. SRISHTI SAH JAGATI Address of Applicant :BANASTHALI VIDYAPITH, P.O. BANASTHALI, BANASTHALI, RAJASTHAN, INDIA, 304022 JAIPUR Jaipur ----- 4)DR. NISHEETH JOSHI Address of Applicant :BANASTHALI VIDYAPITH, P.O. BANASTHALI, BANASTHALI, RAJASTHAN, INDIA, 304022 JAIPUR Jaipur -----

(57) Abstract :
Digital Storytelling Media System for Enhanced History Education Abstract The present disclosure provides a digital storytelling media system designed to revolutionize history education by integrating a comprehensive content database of historical multimedia narratives, which are accessible through a user-friendly interface. The interface not only presents the narratives but also captures user interactions for a tailored educational experience. A sophisticated narrative generation module works in concert with the content database, assembling personalized historical narratives that align with individual user preferences and selected historical topics. An interactive timeline module augments the storytelling by dynamically embedding said narratives within a graphical timeline, offering a visual context of events in history. Complementing the immersive learning experience, an assessment module evaluates the user’s engagement and comprehension, delivering targeted feedback to reinforce understanding and retention of historical knowledge. The system embodies a multifaceted approach to learning that combines technology with the timeless art of storytelling, aiming to engage users deeply and make history education more interactive, personalized, and effective.

No. of Pages : 27 No. of Claims : 10

(54) Title of the invention : METHOD AND SYSTEM FOR OBJECT DETECTION SYSTEM

(51) International classification :G06K0009620000, G06N0003040000, G06N0003080000, G06N0003020000, G10L0025180000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr. Ajay Kumar Sahu Address of Applicant :Greater Noida Institute of Technology, Plot No. 7, Knowledge Park – II, Greater Noida, Uttar Pradesh, Pin Code: 201306 ----- 2)Dr. Shivani Dubey 3)Prof. Vikas Singhal 4)Ms. Archana T. Singh 5)Mr. Gopal Krishna Kushwaha 6)Mr. S.K. Wasil 7)Mr. Vivek Herenj 8)Mr. Rishabh Raj 9)Md. Afnan Rumi 10)Ms. Megha Shree 11)Mr. Siddharth Singh 12)Mr. Meet Raj Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Ajay Kumar Sahu Address of Applicant :Greater Noida Institute of Technology, Plot No. 7, Knowledge Park – II, Greater Noida, Uttar Pradesh, Pin Code: 201306 ----- 2)Dr. Shivani Dubey Address of Applicant :Greater Noida Institute of Technology, Plot No. 7, Knowledge Park – II, Greater Noida, Uttar Pradesh, Pin Code: 201306 ----- 3)Prof. Vikas Singhal Address of Applicant :Greater Noida Institute of Technology, Plot No. 7, Knowledge Park – II, Greater Noida, Uttar Pradesh, Pin Code: 201306 ----- 4)Ms. Archana T. Singh Address of Applicant :Greater Noida Institute of Technology, Plot No. 7, Knowledge Park – II, Greater Noida, Uttar Pradesh, Pin Code: 201306 ----- 5)Mr. Gopal Krishna Kushwaha Address of Applicant :Greater Noida Institute of Technology, Plot No. 7, Knowledge Park – II, Greater Noida, Uttar Pradesh, Pin Code: 201306 ----- 6)Mr. S.K. Wasil Address of Applicant :Student, Greater Noida Institute of Technology, Plot No. 7, Knowledge Park – II, Greater Noida, Uttar Pradesh, Pin Code: 201306 ----- 7)Mr. Vivek Herenj Address of Applicant :Student, Greater Noida Institute of Technology, Plot No. 7, Knowledge Park – II, Greater Noida, Uttar Pradesh, Pin Code: 201306 ----- 8)Mr. Rishabh Raj Address of Applicant :Student, Greater Noida Institute of Technology, Plot No. 7, Knowledge Park – II, Greater Noida, Uttar Pradesh, Pin Code: 201306 ----- 9)Md. Afnan Rumi Address of Applicant :Student, Greater Noida Institute of Technology, Plot No. 7, Knowledge Park – II, Greater Noida, Uttar Pradesh, Pin Code: 201306 ----- 10)Ms. Megha Shree Address of Applicant :Student, Greater Noida Institute of Technology, Plot No. 7, Knowledge Park – II, Greater Noida, Uttar Pradesh, Pin Code: 201306 ----- 11)Mr. Siddharth Singh Address of Applicant :Student, Greater Noida Institute of Technology, Plot No. 7, Knowledge Park – II, Greater Noida, Uttar Pradesh, Pin Code: 201306 ----- 12)Mr. Meet Raj Address of Applicant :Student, Greater Noida Institute of Technology, Plot No. 7, Knowledge Park – II, Greater Noida, Uttar Pradesh, Pin Code: 201306 -----

(57) Abstract :
The present invention relates to an efficient method and system for object detection using deep learning. The method involves preprocessing raw visual data, employing advanced convolutional neural networks (CNNs) for hierarchical feature extraction during a dedicated training phase, and optimizing model parameters using sophisticated algorithms. This enhances the system's ability to accurately detect and classify objects across diverse datasets and environmental conditions. The system encompasses a range of features, including an occlusion handling mechanism, dynamic scale variation resilience, false positive minimization, and prioritized real-time performance. Adaptability to diverse environments and optimization for edge device deployment further underscore the system's versatility. The user-friendly design ensures seamless integration into existing frameworks, making it a comprehensive solution for advanced object detection applications.

No. of Pages : 12 No. of Claims : 7

(54) Title of the invention : BUG LOCALIZATION WITH MULTIMODAL DATA USING A HYBRID OPTIMIZATION-BASED COMPUTATIONAL GRAPH MODEL

(51) International classification :G06F0011360000, G06N0003040000, G06F0011070000, G06K0009620000, G06F0016290000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Manipal University Jaipur Address of Applicant :Manipal University Jaipur, Off Jaipur-Ajmer Expressway, Post: Dehmi Kalan, Jaipur-303007, Rajasthan, India Jaipur ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Ginika Mahajan Address of Applicant :Data Science & Engineering/ SIT/ Jaipur-Ajmer Express Highway, Dehmi Kalan, Near GVK Toll Plaza, Jaipur, Rajasthan 303007 Jaipur ----- 2)Dr. Neha Chaudhary Address of Applicant :Computer Science & Engineering/ SCSE/ Jaipur-Ajmer Express Highway, Dehmi Kalan, Near GVK Toll Plaza, Jaipur, Rajasthan 303007 Jaipur ----- 3)Anita Shrotriya Address of Applicant :Computer Science & Engineering/ SCSE/ Jaipur-Ajmer Express Highway, Dehmi Kalan, Near GVK Toll Plaza, Jaipur, Rajasthan 303007 Jaipur ----- 4)Harish Sharma Address of Applicant :Computer Science & Engineering/ SCSE/ Jaipur-Ajmer Express Highway, Dehmi Kalan, Near GVK Toll Plaza, Jaipur, Rajasthan 303007 Jaipur -----

(57) Abstract :
The present invention relates to a novel system and method for bug localization in software programs. The present invention method combines multimodal data sources and a hybrid optimization-based computational graph model to enhance the accuracy and efficiency of bug localization. Based on the experimental findings, it is evident that the proposed model demonstrates superior performance and outperforms DeepLoc by 85.1%, surpasses DeepLocator by 51.9%, exceeds HyLoc by 54.3%, outpaces LR+WE by 65.1%, and surpasses BugLocator by 73.5% in terms of accuracy@1. Software systems often encounter multiple defects. Typically, developers rely on the information contained within files when reporting a bug, aiming to identify and rectify the source code fragments that necessitate improvement. This study aims to deploy an advanced bug localization model by employing an enhanced deep learning algorithm. The objective is to pinpoint problematic files, thereby boosting the productivity and effectiveness of software quality assurance teams.

No. of Pages : 7 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006014 A

(19) INDIA

(22) Date of filing of Application :30/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : COMPOSITION OF ECO-FRIENDLY GREEN COMPOSITES WITH BASALT AND JUTE FIBERS FOR SUSTAINABLE AGRICULTURAL APPLICATION

(51) International classification :B32B0027120000, H01M0004133000, E02D0017200000, C08L0067040000, A01G0013020000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention relates to a composition of eco-friendly green composites with basalt and jute fibers for sustainable agricultural application. The composition comprises a synergistic combination of basalt fibers, derived from natural basalt rock, and jute fibers, obtained from the jute plant, integrated into a biodegradable matrix composed of environmentally friendly polymers or resins. This novel composite material exhibits exceptional strength, durability, and biodegradability, addressing the environmental concerns associated with conventional agricultural products. The basalt fibers contribute high tensile strength and resilience, while the jute fibers enhance flexibility and tensile strength. The biodegradable matrix not only binds these fibers but also ensures the composite's eco-friendly nature, breaking down naturally at the end of its lifecycle. The composition's versatility allows for applications in plant containers, pots, agricultural tools, and soil erosion control products, providing sustainable alternatives to traditional materials.

No. of Pages : 11 No. of Claims : 10

(54) Title of the invention : SUSTAINABLE WATER FILTRATION SYSTEM USING BANANA PSEUDOSTEM-DERIVED MEMBRANES

(51) International classification :C02F0001000000, C02F0001440000, B01D0065020000, B01D0069140000, B01D0067000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Jaypee University of Information Technology Address of Applicant :Waknaghat, Solan - 173234, Himachal Pradesh, India. ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Swastik Manibhushan Mondal Address of Applicant :Jaypee University of Information Technology, Waknaghat, Solan - 173234, Himachal Pradesh, India. Solan ----- --- ----- 2)Abhishek Chaudhary Address of Applicant :Jaypee University of Information Technology, Waknaghat, Solan - 173234, Himachal Pradesh, India. Solan ----- --- ----- 3)Jitendraa Vashistt Address of Applicant :Jaypee University of Information Technology, Waknaghat, Solan - 173234, Himachal Pradesh, India. Solan ----- --- ----- 4)Sudhir Kumar Address of Applicant :Jaypee University of Information Technology, Waknaghat, Solan - 173234, Himachal Pradesh, India. Solan ----- --- ----- 5)Sandhya Tegta Address of Applicant :Jaypee University of Information Technology, Waknaghat, Solan - 173234, Himachal Pradesh, India. Solan ----- --- ----- 6)Purba Kundu Address of Applicant :Jaypee University of Information Technology, Waknaghat, Solan - 173234, Himachal Pradesh, India. Solan ----- --- ----- 7)Tanvi Chadha Address of Applicant :Jaypee University of Information Technology, Waknaghat, Solan - 173234, Himachal Pradesh, India. Solan ----- --- -----

(57) Abstract :
ABSTRACT SUSTAINABLE WATER FILTRATION SYSTEM USING BANANA PSEUDOSTEM-DERIVED MEMBRANES The present invention introduces a pioneering solution for water purification and waste management by leveraging banana pseudostems as a key component in the development of cost-effective and environmentally friendly membranes. The inner layers of banana pseudostems, abundant in cellulose and low in lignin, undergo a series of optimized physio-chemical treatments to enhance their suitability for membrane synthesis. The resulting membrane exhibits an anisotropic structure with macropores, a unique fiber network, and improved crystallinity. Through meticulous testing, the membrane demonstrates a remarkable 74.32% efficiency in removing 2-micron E. coli DH5a cells in a double membrane system. Additionally, the membrane proves to be water-stable over three months and showcases practical efficiency in water filtration applications with a flux rate of 27 L/h. The cost-effective production, priced at a mere 21.6 rupees per unit, addresses the critical affordability aspect. The invention not only contributes to clean water solutions but also aids in sustainable waste management by repurposing banana pseudostems. This innovative approach holds promise for widespread adoption, offering a significant stride towards addressing global water quality challenges and environmental sustainability.

No. of Pages : 15 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :29/01/2024

(21) Application No.202411005632 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : HEAT CHANNELLING APPARATUS FOR THERMAL ENERGY STORAGE

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(51) International classification	:F24S10/70, F28D20/00	(72)Name of Inventor : 1)Jawaaz Ahmad Address of Applicant :House No. 191, Lane No.02, Firdous Colony, Buchpora, Srinagar, Jammu and Kashmir, INDIA – 190020 Srinagar ----- 2)Design Innovation Centre Address of Applicant :Islamic University of Science and Technology, 1-University Avenue, Awantipora, Pulwama, Jammu and Kashmir, INDIA – 192122 Awantipora ----- 3)Islamic University of Science and Technology Address of Applicant :1-University Avenue, Awantipora, Pulwama, Jammu and Kashmir, INDIA – 192122 Awantipora ----- 4)JK Science Technology and Innovation Council Address of Applicant :Technical Secretariat JK Science, Technology and Innovation Council, Department of Science and Technology, Tawanai Ghar, SDA Colony, Bemina, Srinagar, Jammu and Kashmir, INDIA- 190018 Srinagar -----
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The Heat Channelling Apparatus for Thermal Energy Storage introduces a novel approach to addressing the challenges associated with efficient and sustainable thermal energy storage. The prototype utilizes a network of copper heat channels designed for optimal heat distribution, complemented by glass-evacuated tubes serving as solar collectors to harness renewable energy efficiently. The integration of sand as a phase change medium enhances energy storage density, allowing for effective absorption and release of thermal energy. The modular design ensures scalability and adaptability to diverse energy storage requirements, facilitating seamless integration into various industrial and residential settings. Beyond its solar applications, the apparatus demonstrates versatility by accommodating other heat sources, making it a promising solution for diverse energy systems. The choice of materials, including copper, glass, and sand, aligns with sustainability principles, emphasizing low environmental impact. This innovative thermal energy storage apparatus presents a significant advancement in the field, offering a reliable, scalable, and environmentally conscious solution to meet the rising demand for clean and efficient energy storage.

No. of Pages : 20 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005645 A

(19) INDIA

(22) Date of filing of Application :29/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD FOR IMPLEMENTING SUN TRACKING SOLAR PANEL USING ARDUINO

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(51) International classification	:H02S0020320000, F24S0050200000, F24S0030000000, G05B0015020000, H02S0020000000	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The present invention relates to system and method for implementing sun tracking solar panel using arduino. The system (100) and method comprises a Arduino UNO R3 Microcontroller, light dependent resistors, a gear motor and servo mechanism, adaptive control algorithm, and user-friendly interface. The Arduino UNO R3 Microcontroller as a primary control unit. The light dependent resistors (LDRs) integrated into the system for detecting the intensity of sunlight. The gear motor and servo mechanism for adjusting the orientation of solar panels. The adaptive control algorithm for continuous adjustment of solar panel orientation based on LDR readings. The robust construction and enclosure to withstand environmental factors. The user-friendly interface for system monitoring and manual control

No. of Pages : 12 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :29/01/2024

(21) Application No.202411005661 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : IOT-BASED SMART GARBAGE COLLECTOR

(51) International classification :B65F0001140000, G06F0012020000, G06Q0010080000, G16H0040670000, G06F0003048100

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention relates to an IOT-based smart garbage collector. The IOT-based smart garbage collector comprises a plurality of sensors, data connectivity unit, central database, data analytics unit, and interface. The plurality of sensors embedded within garbage bins, is configured to measure and transmit real-time data on fill levels. The data connectivity unit to facilitate wireless transmission of sensor-acquired data. The central database is used to receive and store transmitted sensor data. The data analytics unit utilizes algorithms to process collected data to optimize waste collection. The interface facilitating user interaction for reporting issues, requesting pickups, and receiving real-time updates on collection statuses.

No. of Pages : 11 No. of Claims : 5

(54) Title of the invention : MULTIFUNCTIONAL WHEELCHAIR WITH TREADMILL

(51) International classification :A63B0022020000, A61B0005000000, A61G0005100000, A61B0005110000, A61B0005020500 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Sharda University Address of Applicant :Plot No. 32-34, Knowledge Park-III, Greater Noida - 201310, Uttar Pradesh, India. Greater Noida ----- ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)MISHRA, Akanksha Address of Applicant :Faculty, Department of Mechanical Engineering, Sharda School of Engineering & Technology, Sharda University, Plot No. 32, 34, Knowledge Park III, Greater Noida - 201310, Uttar Pradesh, India. Greater Noida ----- ----- 2)FULGENCE, Zabre Patoulyele Address of Applicant :Student, Department of Mechanical Engineering, Sharda School of Engineering & Technology, Sharda University, Plot No. 32, 34, Knowledge Park III, Greater Noida - 201310, Uttar Pradesh, India. Greater Noida ----- ----- 3)TANKOANO, Youmanli Registre Thomas Address of Applicant :Student, Department of Mechanical Engineering, Sharda School of Engineering & Technology, Sharda University, Plot No. 32, 34, Knowledge Park III, Greater Noida - 201310, Uttar Pradesh, India. Greater Noida ----- ----- 4)KHAN, Edan Address of Applicant :Student, Department of Mechanical Engineering, Sharda School of Engineering & Technology, Sharda University, Plot No. 32, 34, Knowledge Park III, Greater Noida - 201310, Uttar Pradesh, India. Greater Noida ----- ----- 5)NTUMBA, Zacharie Address of Applicant :Student, Department of Mechanical Engineering, Sharda School of Engineering & Technology, Sharda University, Plot No. 32, 34, Knowledge Park III, Greater Noida - 201310, Uttar Pradesh, India. Greater Noida ----- -----

(57) Abstract :
The present disclosure discloses a multifunctional wheelchair (100) to enhance user well-being and independence. The wheelchair (100) includes a foldable frame (102), reclining mechanism, and an integrated treadmill assembly (122). The treadmill assembly, powered by a motor, enables users to engage in controlled walking exercises while seamlessly folding away when not in use. Additionally, a user interface facilitates effortless control over the treadmill and reclining features, ensuring a personalized and user-centric experience. Further, health monitoring is elevated through sensors capturing vital parameters, which are transmitted to a server for comprehensive analysis and remote accessibility. With a focus on user comfort and adaptability, the wheelchair (100) sets a new standard for assistive devices, promoting both physical activity and extended relaxation, thus significantly improving the of life for individuals with mobility challenges.

No. of Pages : 23 No. of Claims : 10

(54) Title of the invention : A NOVEL PROCESS FOR THE PREPARATION OF HISTIDINE LOADED LIGNIN-CHITOSAN NANOFORMULATION

(51) International classification :A61K0009510000, C08H0007000000, C08L0005080000, C07G0001000000, C08L0097000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

A NOVEL PROCESS FOR THE PREPARATION OF HISTIDINE LOADED LIGNIN-CHITOSAN NANOFORMULATION The present invention relates to synthesis process of chitosan-lignin-histidine nanoformulation (C-L-H NF) was carried out by ionic gelation method. In this process, chitosan-lignin complex was developed by different concentrations of lignin (0.25, 0.5, 0.75 and 1%; w/v) used as crosslinker with 0.5% (w/v) chitosan biopolymer. A volume of 10 ml of histidine (2%; w/v) was added into the reaction. Among the various concentrations (0.25, 0.5, 0.75 and 1%; w/v) of lignin, 0.5% lignin was found very suitable for getting a considerable size (451 nm), PDI (0.249) and zeta potential (37.6 mV). The nanoformulation developed by 0.5% lignin was further validated by NTA analysis, $7.15 \times 10^8 \pm 0.00$ C-L-H NF nanoparticles per ml with a mean size of 253.9 ± 0.00 nm was detected at pH 7 in aqueous. Among the all concentrations (0.25, 0.5, 0.75 and 1%) of lignin, 0.5% lignin formulation with 2% histidine showed maximum encapsulation efficiency (52%) in C-L-H NF. SEM study of C-L-H NF showed mild porous with complex surface structure of nanoformulations. There were shifts noticed in the peaks due to C=O stretching from 1155 cm⁻¹ in chitosan to a lesser intense peak at 1150 cm⁻¹ in C-L-H NF, which indicating the possibility of hydrogen bonding between functional groups of chitosan (amino, hydroxyl, carbonyl groups) and lignin (hydroxyl, carbonyl etc.). TEM study revealed that compact porous image with minute pore in internal structure of nanoformulation.

No. of Pages : 22 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005850 A

(19) INDIA

(22) Date of filing of Application :29/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SIZE REDUCTION IMPACTOR AND A PROCESS INVOLVED THEREIN

(51) International classification :C12N0015820000, H04L0001180000, B02C0013280000, G01N0015020000, G06F0009480000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

A size reduction impactor of the present disclosure is used to crush biomass into smaller particle size as per the process requirement by the rupturing the biomass by repeated impacts from hammers. This mechanical force breaks down the rigid structure of lignin within the cell walls. Thus, the impactor works in a manner that it simultaneously reduces the size of the biomass while maximizing the exposure of the plant cells so that the bacteria can act in a faster/shorter period.

No. of Pages : 27 No. of Claims : 11

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005857 A

(19) INDIA

(22) Date of filing of Application :29/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A MULTI-STACKED DEVICE FOR GENERATING ELECTRICITY

(51) International classification :H01M0010052500, H01L0029100000, G06K0019070000, B60K0015030000, H01L0031046500 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE, PILANI Address of Applicant :VIDYA VIHAR, PILANI, RAJASTHAN - 333031, INDIA PILANI ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Sanket Goel Address of Applicant :J-222, Department of EEE, BITS-Pilani, Hyderabad Campus, Jawahar Nagar, Shameerpet, Hyderabad - 500078, Telangana, India Hyderabad ----- 2)Mr. Mao Yuvraj Maphrio Address of Applicant :J-204, Department of EEE, BITS-Pilani, Hyderabad Campus, Jawahar Nagar, Shameerpet, Hyderabad - 500078, Telangana, India Hyderabad ----- 3)Dr. Amreen Khairunnisa Address of Applicant :J-204, Department of EEE, BITS-Pilani, Hyderabad Campus, Jawahar Nagar, Shameerpet, Hyderabad - 500078, Telangana, India Hyderabad -----

(57) Abstract :

The multi-stacked device comprises a base plate(102); a first electrode(106) positioned on a first portion(102a) of said base plate(102); a second electrode(108) positioned on a second portion(102b) of said base plate(102); a reference electrode(110) positioned on a third portion(102c) of said base plate(102); at least one chamber(104) comprising a storage space of predetermined volume to facilitate storage of an fuel/ electrolyte, wherein said at least one chamber comprising a first recess(104a) to gain access to a first protruding surface(106a) of the first electrode(106), a second recess(104b) to gain access to a first protruding surface(108a) of the second electrode(108), and a third recess(104c) to gain access to the reference electrode(110) such that the first electrode(106), the second electrode(108) and the reference electrode(110) are accessible within the storage space; and a plurality of connecting elements(112) to be in direct contact with the first electrode(106), second electrode(108) and the reference electrode(110) respectively.

No. of Pages : 23 No. of Claims : 10

(54) Title of the invention : DEVELOPMENT OF ANTHOCYANIN INDEX (ARI1) USING SENTINEL 2 SATELLITE DATA FOR VEGETATION STRESS MAPPING

(51) International classification :A01G0007000000, C09B0061000000, C07K0014415000, G06F0016245800, G01W0001000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)SURESH GYAN VIHAR UNIVERSITY Address of Applicant :GYAN VIHAR MARG, JAGATPURA, JAIPUR, RAJASTHAN 302017 ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)DR. SAURABH KUMAR GUPTA Address of Applicant :SURESH GYAN VIHAR UNIVERSITY, GYAN VIHAR MARG, JAGATPURA, JAIPUR, RAJASTHAN 302017 ----- 2)DR. SURAJ KUMAR SINGH Address of Applicant :SURESH GYAN VIHAR UNIVERSITY, GYAN VIHAR MARG, JAGATPURA, JAIPUR, RAJASTHAN 302017 ----- 3)DR. SHRUTI KANGA Address of Applicant :DEPARTMENT OF GEOGRAPHY, SCHOOL OF ENVIRONMENT AND EARTH SCIENCES, CENTRAL UNIVERSITY, PUNJAB-151401 -----

(57) Abstract :
DEVELOPMENT OF ANTHOCYANIN INDEX (ARI1) USING SENTINEL 2 SATELLITE DATA FOR VEGETATION STRESS MAPPING The Anthocyanin Index will be used to calculate the quantity of anthocyanin found in leaf pigments in the upper canopy of trees from any place on the planet. This will be accomplished using Sentinel 2 satellite data with a resolution of 10m-20m. The field data was used to determine the index's accuracy, which was found to be adequate. This will improve stress prediction in forests and vegetation under any climate or weather situation. At adverse climatic conditions, anthocyanin mostly produced in leaf pigments. It is a type of non-photosynthetic pigment that is water soluble and grows mostly in the summer. Thus, the created index aids in the monitoring and assessment of anthocyanin on a large scale, even worldwide, through the use of remote sensing and GIS techniques. The experimental region's tree quality and anthocyanin pigments are determined to be adequate for establishing the index. This measure is often used in conjunction with other indices to provide a comprehensive picture of vegetation health. The results demonstrate that a high ARI1 index value indicates severe stress in plants since anthocyanin was created in plants to withstand harsh environments. Because it tolerates high temperatures and little water supply, the forest in May resembles higher anthocyanin and carotenoid content than chlorophyll content.

No. of Pages : 15 No. of Claims : 6

(54) Title of the invention : CREATION OF A PARTITIONED SCREEN EARTH ENGINE SOFTWARE FOR GEO-VISUALIZATION OF THE FOREST FIRE-RAVAGED REGION UTILISING SENTINEL 2 WEEKLY COMPOSITE IMAGERY

(51) International classification :G08B0017000000, A62C0003020000, G08B0017120000, G01W0001100000, G01S0007410000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

CREATION OF A PARTITIONED SCREEN EARTH ENGINE SOFTWARE FOR GEO-VISUALIZATION OF THE FOREST FIRE-RAVAGED REGION UTILISING SENTINEL 2 WEEKLY COMPOSITE IMAGERY Forests are an essential natural resource that contribute to environmental sustainability. The combustion of biomass in forests produces greenhouse gas emissions, many of which are long-lived. Precise and consistent broad-scale monitoring of fire intensity is a helpful tool for studying fire-related climatic and biological changes. Remote sensing and geographic information systems have the potential to increase the accuracy and performance of present practises. Using satellite data, spectral indices approaches such as normalised burn ratio (NBR) have been utilised to detect burned regions, which help in differentiating burnt areas based on their typical spectral responses. We used Sentinel 2 weekly composites to construct a web-based Google Earth Engine programme for geo-visualization of the region badly damaged by forest fires for this study. Then, using the Difference Normalized Burn Ratio, we assessed the burn severity in regions damaged by forest fires in Wolgan Valley, New South Wales, Australia, and the surrounding area (dNBR). The scorched area in the region climbed to 6731 square kilometres in December, according to the results.

No. of Pages : 12 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005404 A

(19) INDIA

(22) Date of filing of Application :26/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING-BASED SYSTEM FOR ESTIMATING WHEAT YIELD

(51) International classification :G06K0009620000, G06N0020000000, G06N0020100000, G06N0007000000, G06N0020200000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

New updated machine learning based model for estimation of wheat crop. This invention estimates the NPP from wheat and then estimates its yield. India is the world's biggest exporter of wheat grain, thus keeping an eye on growth and production there is one of the nation's top economic objectives. Because it is the foundation of the Indian economy, agriculture plays a key role in the country. Half of India's labor force is employed in agriculture, which accounts for around 19.9% of the nation's GDP. Wheat is a crucial food grain that is primarily grown during the winter (Rabi season), and it is the key ingredient in the staple diet in Eastern India. Since wheat flour is used in the majority of foods, monitoring its assessment is crucial. In this invention we used the Random Forest (RF) and Support Vector Machine classifiers to perform machine learning-based classification for the computation of wheat acreage, and we compared the accuracy of their classification based on ground truthing. One of the most important concerns that policy and decision makers need to consider when evaluating annual crop production and food supply is calculating crop acreage and yield. Accurate estimates of the acreage are necessary for the computation of the yield utilizing models for yield estimating, such as the Carnegie-Ames-Stanford System (CASA). This invention is very useful to analyses the wheat acreage area determined from two machine learning (ML) image classifier methods, the random forest (RF) and support vector machine, in order to determine precise yield(SVM).

No. of Pages : 14 No. of Claims : 6

(51) International classification :G09B0019060000, G09B0019040000, G06F0040253000, G09B0005060000, G09B0007020000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
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(62) Divisional to Application Number :NA
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(57) Abstract :
ABSTRACT COMPUTER ASSISTED ENGLISH COMMUNICATION DIAGNOSTIC The Computer Assisted English Communication Diagnostics (CAECD) is a software tool designed to assess an individual's proficiency in the English language. It utilizes advanced language processing algorithms to analyze the user's spoken and written language and provide accurate and detailed feedback on their communication skills. The CAECD is primarily developed for non-native English speakers, who may require support in improving their English language proficiency for academic, professional, or personal reasons. This tool can also be used by language teachers and institutions to assess their students' progress and provide personalized instruction. The CAECD features a user-friendly interface that allows individuals to input their written or spoken English and receive instant feedback. The tool evaluates various aspects of language proficiency, such as grammar, vocabulary, pronunciation, and fluency. It also provides recommendations on areas for improvement and offers resources for further practice and development. One of the key advantages of the CAECD is its ability to adapt to the user's specific needs and level of proficiency. It can evaluate different forms of communication, such as speaking, writing, and listening, and tailor its assessment to the individual's language level. This allows for a more personalized learning experience and enables users to focus on their specific areas of weakness. In addition to its language assessment capabilities, the CAECD also offers cultural and situational awareness training, helping users to understand and navigate the nuances of English language communication. This is particularly beneficial for individuals looking to work or study in English-speaking environments. Overall, the CAECD is a valuable tool for enhancing English language proficiency and enabling effective communication in varied contexts. Its advanced features and personalized approach make it a valuable addition to any language learning or teaching program.

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005518 A

(19) INDIA

(22) Date of filing of Application :27/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SMART ATTENDANCE SYSTEM USING DEEP LEARNING NEURAL NETWORKS AND EDGE COMPUTING

(51) International classification :G06N0003040000, G06N0003080000, G07C0001100000, G06Q0010100000, G06F0003030000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Baba Farid College of Engineering and Technology Address of Applicant :Muktsar Road, Bathinda-151001, Punjab, India Bathinda ----- 2)Baba Farid College Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Er. Gursewak Singh Address of Applicant :Department of Computer Science & Engineering, Baba Farid College of Engineering and Technology, Muktsar Road, Bathinda-151001, Punjab, India Bathinda ----- 2)Dr. Jyoti Bansal Address of Applicant :Principal, Baba Farid College of Engineering and Technology, Muktsar Road, Bathinda-151001, Punjab, India Bathinda ---- ----- 3)Dr. Amandeep Singh Address of Applicant :Department of Electrical Engineering, Baba Farid College of Engineering and Technology, Muktsar Road, Bathinda-151001, Punjab, India Bathinda ----- 4)Er. Sumeet Bharti Address of Applicant :Department of Computer Science & Engineering, Baba Farid College of Engineering and Technology, Muktsar Road, Bathinda-151001, Punjab, India Bathinda ----- 5)Mehakdeep Singh Address of Applicant :Department of Computer Science & Engineering, Baba Farid College of Engineering and Technology, Muktsar Road, Bathinda-151001, Punjab, India Bathinda ----- 6)Deepak Address of Applicant :Department of Computer Science & Engineering, Baba Farid College of Engineering and Technology, Muktsar Road, Bathinda-151001, Punjab, India Bathinda ----- 7)Rajan Address of Applicant :Department of Computer Science & Engineering, Baba Farid College of Engineering and Technology, Muktsar Road, Bathinda-151001, Punjab, India Bathinda -----

(57) Abstract :

ABSTRACT SMART ATTENDANCE SYSTEM USING DEEP LEARNING NEURAL NETWORKS AND EDGE COMPUTING In an aspect, the present disclosure discloses a smart attendance system (100). The system (100) includes an image capturing unit (102) to capture facial images of each of a pupil; a plurality of sensors (104) comprising one or more of proximity, infrared; a web display (106) to display status of each of the student and the teacher; and the microcontroller (108) including a storage memory (108A) coupled with processor (108B) to operate a plurality of modules. Figures 1A and 2

No. of Pages : 26 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :27/01/2024

(21) Application No.202411005537 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : READY TO COOK PALM LEAF WRAPPED RICE FLOUR DUMPLINGS

(51) International classification :A23L 29/30 , A23L 33/10,
A23L 7/10
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to
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(57) Abstract :

The present invention generally relates to ready to cook product. Specifically, the present invention relates to food product comprising dry components (roasted rice and dehulled green gram flour), palm jaggery and water. Further, the present invention relates to a process of preparing ready to cook Panai Olai Kozhukattai (POK). The method used in the present invention reduces the time taken to prepare the POK. The ready to cook POK has significantly high amount of dietary fibre, and other nutrients.

No. of Pages : 25 No. of Claims : 12

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005556 A

(19) INDIA

(22) Date of filing of Application :28/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : DEVELOPMENT OF NON-INVASIVE BUCCAL PATCHES TO STUDY THE EFFECT OF EMBLICA OFFICINALIS EXTRACT ON CEREBRAL ATROPHY

(51) International classification :A61K0036470000, A61K0047320000, A61P0025000000, A61K0009700000, A61P0031040000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention introduces a non-invasive buccal patch designed for the controlled and sustained delivery of Emblica officinalis extract, aimed at studying its effects on cerebral atrophy, a hallmark of neurodegenerative diseases. The buccal patch features a biocompatible adhesive layer adhering to the inner cheek mucosa, facilitating the gradual release of Emblica officinalis bioactive compounds into the bloodstream. This innovation offers a compassionate and efficient means of administering the extract, overcoming the limitations of invasive procedures. Additionally, the buccal patch can be customized to meet individual patient needs, aligning with the principles of personalized medicine. The invention extends its potential applications beyond cerebral atrophy research, serving as a versatile drug delivery system. Its introduction holds the promise of advancing pharmaceutical research, improving patient experiences, and shaping the future of healthcare. Accompanied Drawing [FIGS. 1-2]

No. of Pages : 21 No. of Claims : 10

(54) Title of the invention : HYBRID CLASSIFIER-BASED FEDERATED LEARNING FOR CARDIOVASCULAR DISEASE PREDICTION

(51) International classification :G06N0003000000, G16H0040670000, G16H0050200000, G16H0010600000, G16H0080000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Bihari Nandan Pandey Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Ajay Kumar Garg Engineering College, Ghaziabad, U.P, India ---- ----- 2)Raghvendra Pratap Singh 3)Shruti Jain 4)Deepti Arora 5)Dr. Swapnil Srivastava 6)Satyam Kumar Sainy 7)Sachin Jain Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Bihari Nandan Pandey Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Ajay Kumar Garg Engineering College, Ghaziabad, U.P, India ----- ----- 2)Raghvendra Pratap Singh Address of Applicant :Assistant Professor, Department of Electronics and Communication Engineering, Ajay Kumar Garg Engineering College, Ghaziabad, U.P, India ----- ----- 3)Shruti Jain Address of Applicant :Assistant Professor, Department of MCA, Ajay Kumar Garg Engineering College, Ghaziabad, U.P, India ----- ----- 4)Deepti Arora Address of Applicant :Assistant Professor, Department of MCA, Ajay Kumar Garg Engineering College, Ghaziabad, U.P, India ----- ----- 5)Dr. Swapnil Srivastava Address of Applicant :Associate Professor, Meerut Institute of Engineering and Technology (MIET), Meerut, U.P, India ----- ----- 6)Satyam Kumar Sainy Address of Applicant :Assistant Profesoor, G L Bajaj Institute of Technology and Management, Greater Noida, U.P, India ----- ----- 7)Sachin Jain Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Ajay Kumar Garg Engineering College, Ghaziabad, U.P, India ----- -----

(57) Abstract :
[053] Our invention presents a breakthrough in predictive healthcare, revolutionizing cardiovascular disease management. Through the fusion of Hybrid Federated Learning and a modified Artificial Bee Colony Optimization (M-ABC) algorithm with Support Vector Machines (SVMs), our system offers highly accurate disease prediction while ensuring data privacy. The system facilitates seamless collaboration among healthcare providers, researchers, and data scientists, fostering continuous improvement in predictive accuracy. It also includes a user-friendly interface for healthcare professionals and upholds ethical standards in data handling. By adhering to regulatory compliance and robust data security, this invention ensures the responsible use of patient data. Public awareness campaigns complement the system, promoting cardiovascular health. Furthermore, collaboration with pharmaceutical companies opens avenues for innovative drug interventions. This invention's feedback loop and long-term monitoring sustain patient well-being. Overall, our system's comprehensive approach transforms cardiovascular care, promising early detection, personalized interventions, and enhanced patient outcomes. Accompanied Drawing [FIGS. 1-2]

No. of Pages : 21 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :28/01/2024

(21) Application No.202411005565 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : DETECTION OF DIABETIC ANALYSER

(51) International classification :A61B0005000000, A61B0005145000, G16H0050200000, G16H0040670000, G16H0020600000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

The present invention relates to provide a detection of diabetic analyser. The Detection of Diabetic Analyser (DDA) is an innovative device transforming diabetes management by seamlessly integrating cutting-edge technology and unique features. It combines real-time glucose monitoring with AI-driven predictive analysis, providing users with a personalized approach to diabetes care. The DDA includes a non-invasive Continuous Glucose Monitoring (CGM) system, utilizing advanced sensors for real-time data without traditional blood glucose testing discomfort. The AI-driven predictive analysis considers various factors, empowering users to make informed decisions based on dietary habits, physical activity, sleep, and stress levels. The user-friendly mobile app interface displays real-time and historical glucose data, along with personalized insights and actionable recommendations. Customizable alerts, secure cloud connectivity, long battery life, and a compact design enhance user convenience. Developed in collaboration with leading diabetes researchers, the DDA signifies a significant leap forward in diabetes management, offering a comprehensive solution with the latest technology, AI, and user-centric design.

No. of Pages : 10 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005858 A

(19) INDIA

(22) Date of filing of Application :29/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AUTOMATED FARM PRODUCE GRATING DEVICE

(51) International classification :A47J43/25,
B25J18/02
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application
Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

An automated farm produce grating device, comprises of a pair of rectangular platforms 1 connected with each other via a telescopically operated rod 2, a camera 3 to detect dimension of a grating tool, a pair of triangular plates installed with each of platforms 1 via a pair of motorized hinges to allow placement of an auxiliary utensil underneath the grating tool, a cylindrical hollow member 5 installed with platforms 1 via a pair of L-shaped links 6 to tilt the plates, a speaker to notify user to place produce into the member 5, an ultrasonic sensor to detect dimensions of produce, pair of rack and pinion gear arrangements configured between the platforms 1 and links 6 to move the grating tool for grating the produce which is collected into the utensil.

No. of Pages : 16 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005859 A

(19) INDIA

(22) Date of filing of Application :29/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : ADJUSTABLE WOODEN CORNER SHAPING ASSISTIVE DEVICE

(51) International classification :G03H0001220000, H04N0005232000, G06F0040166000, A61H0003000000, G06F0003048100

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

An adjustable wooden corner shaping assistive device, comprising a frame 1 having curved plate 2 and positioned on a wooden surface, an artificial intelligence-based imaging unit 3 synced with an ultrasonic sensor to determine dimensions of surface, a drawer arrangement integrated in plate 2 which extend till corners of surface, a pair of clamping units 4 are integrated on ends of plate 2 to acquire a grip over surface corners for affixing frame 1 on surface, a sharpness detection sensor integrated on frame 1 and synced with imaging unit 3 for determining sharpness of surface and accordingly a pattern to be trimmed off corner for shaping corner is evaluated, a holographic projector 5 depicts evaluated pattern on corner for guiding user to cut surface, plurality of extendable blocks 6 extend/retract for forming a boundary of projected image in order to assist user in performing cutting.

No. of Pages : 15 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005893 A

(19) INDIA

(22) Date of filing of Application :29/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : POCOBAM FABRIC ECG GOWN

(51) International classification :A41D13/12
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT POCOBAM Fabric ECG Gown The present disclosure introduces a POCOBAM Fabric ECG Gown to revolutionize the patient experience during electrocardiogram (ECG) procedures. It comprises of POCOBAM fabric 102, flaps 104 and Velcro closures 106. The innovative POCOBAM Fabric blend 102 of bamboo, cotton, and polyester, the gown prioritizes comfort, breathability, and durability. Strategically positioned flaps 104, secured with Velcro closures 106, enable precise access for healthcare providers during electrode placement, minimizing patient discomfort and maintaining privacy. Designed for versatility, the gown accommodates different electrode systems, offering adaptability for standard ECG procedures, continuous cardiac monitoring, and emergencies.

REFERENCE FIG 1

No. of Pages : 19 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :29/01/2024

(21) Application No.202411005894 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : TUNNEL SAFETY SYSTEM

(51) International classification :H04B0010116000, G01C0021340000, B60W0010200000, G08B0025010000, G08G0001087000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
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(57) Abstract :

ABSTRACT TUNNEL SAFETY SYSTEM The present disclosure introduces a tunnel safety system designed to address growing challenges in managing safety and traffic within underground tunnels. It comprises of camera sensor 102, thermal imaging sensor 104, ambient temperature sensor 106, controller 108, traffic lights 110, data transfer unit 112, AI and ML algorithms 114, route maps 116, GPS system 118, radio transmitter 120, Lifi transmitter 122, power unit 124, databases/memory 126, keypad unit 128, Car/4-Wheeler Receiving System 200 comprising of CPU unit 202, Lifi signal receiver 204, converter 206, car's GPS system 208, internet interface for tunnel signals 210 and car's internal screen 212. An advanced controller, driven by AI and ML algorithms, processes the sensor data and dynamically controls traffic lights, offering suggestions and alternate routes based on incident severity. REFERENCE FIG 1

No. of Pages : 25 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005577 A

(19) INDIA

(22) Date of filing of Application :28/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : STANDARDIZATION OF METHOD FOR ENHANCING THE PRODUCTION AND QUALITY OF STRAWBERRY (FRAGARIA × ANANASSA DUCH.) BY USING DIFFERENT MICRONUTRIENTS

(51) International classification :C05D0009020000, H02M0001320000, A01G0007060000, A01N0059160000, A01H0005080000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Strawberry is one of the important and delicious fruit in the world. A special position for it among cultivated berry fruits. It is a synthetic hybrid with chromosomal number $2n=8X=56$ that is a member of the Rosaceae family. With seven treatments of micronutrients at varying doses and three replications of each micronutrient combination, the experiment was set up using a randomised block design. $ZnSO_4$ (0.2%, 0.4%), boron (0.2%, 0.4%), and their various combinations were the treatments. The application of 0.4% ($ZnSO_4$ + Boron) was found to be optimal in terms of maximum fruit yield per plot (g), maximum TSS (B) on the third, fifth, and seventh days; minimum acidity (%) on the third, fifth, and seventh days; pH on the third, fifth, and seventh days; and maximum shelf-life (at room temperature) (2.51 days) for T6 treatment. Research has shown that applying $ZnSO_4$ and boron topically on fruit leaves before to harvest can enhance fruit output, quality, and shelf life.

No. of Pages : 7 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005596 A

(19) INDIA

(22) Date of filing of Application :29/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : INTEGRATIVE WATER QUALITY MONITORING SYSTEM: IOT SENSORS, ML ANALYSIS, AND LLM GUIDANCE FOR REAL-TIME POTABILITY ASSESSMENT AND SUSTAINABLE WATER MANAGEMENT

(51) International classification :G01N0033180000, C02F0001500000, G16H0020300000, B82Y0015000000, E03B0007040000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Jaypee University of Information Technology Address of Applicant :Waknaghat, Solan - 173234, Himachal Pradesh, India. Solan ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Tushar Paul Address of Applicant :Department of Electronics & Communication Engineering, Jaypee University of Information Technology, Waknaghat, Solan - 173234, Himachal Pradesh, India. Solan ----- 2)Priyansh Garg Address of Applicant :Department of Computer Science Engineering and Information Technology, Jaypee University of Information Technology, Waknaghat, Solan - 173234, Himachal Pradesh, India. Solan ----- 3)Rohit Raj Address of Applicant :Jaypee University of Information Technology, Waknaghat, Solan - 173234, Himachal Pradesh, India. Solan ----- 4)Prof. shruti Jain Address of Applicant :Associate Dean (Innovation) Professor, Department of Electronics & Communication Engineering, Jaypee University of Information Technology, Waknaghat, Solan - 173234, Himachal Pradesh, India. Solan -----

(57) Abstract :

ABSTRACT Integrative Water Quality Monitoring System: IoT Sensors, ML Analysis, and LLM Guidance for Real-Time Potability Assessment and Sustainable Water Management The present invention introduces a novel water quality monitoring system, termed (Potability Assessment & Nutrient Instructor), designed to tackle the challenges posed by the global water crisis. The system integrates IoT sensors, including TDS, pH, and turbidity sensors, utilizing an ESP32 micro-controller for sensor integration. The collected data is transmitted wirelessly to a centralized data management system.

No. of Pages : 15 No. of Claims : 10

(54) Title of the invention : SYSTEM AND METHOD FOR DETERMINING PARAMETERS IN AN ELECTRIC GRID INFRASTRUCTURE BY AUTONOMOUS ROBOTIC DEVICES

(51) International classification :B25J11/00, B25J9/16, G01S17/89, G05D1/02, H04N5/232 (86) International Application No Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number Filing Date :NA (62) Divisional to Application Number Filing Date :NA		(71)Name of Applicant : 1)INDIAN INSTITUTE OF TECHNOLOGY KANPUR Address of Applicant :DEAN, RESEARCH & DEVELOPMENT, ROOM NUMBER 151, FACULTY BUILDING, POST OFFICE: IIT KANPUR, KANPUR, UTTAR PRADESH - 208016, INDIA KANPUR ----- 2)POWER GRID CORPORATION OF INDIA LIMITED Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)NAYAN JYOTI BAISHYA Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, UTTAR PRADESH, INDIA, 208016 KANPUR ----- 2)ANIRUDHA BHATTACHARJEE Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, UTTAR PRADESH, INDIA, 208016 KANPUR ----- 3)MAHENDRA KUMAR GOHIL Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, UTTAR PRADESH, INDIA, 208016 KANPUR ----- 4)BISHAKH BHATTACHARYA Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, UTTAR PRADESH, INDIA, 208016 KANPUR ----- 5)AKSHAY BANKAR Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, UTTAR PRADESH, INDIA, 208016 KANPUR ----- 6)PRADEEP SINGH CHAUHAN Address of Applicant :DEPARTMENT OF TECHNOLOGY DEVELOPMENT, POWER GRID CORPORATION OF INDIA LIMITED, 'SAUDAMINI' PLOT NO- 02, SECTOR-29 GURGAON-122001, HARYANA, INDIA GURGAON ----- 7)B. B. MUKHERJEE Address of Applicant :DEPARTMENT OF TECHNOLOGY DEVELOPMENT, POWER GRID CORPORATION OF INDIA LIMITED, 'SAUDAMINI' PLOT NO- 02, SECTOR-29 GURGAON-122001, HARYANA, INDIA GURGAON ----- 8)SUBIR SEN Address of Applicant :DEPARTMENT OF TECHNOLOGY DEVELOPMENT, POWER GRID CORPORATION OF INDIA LIMITED, 'SAUDAMINI' PLOT NO- 02, SECTOR-29 GURGAON-122001, HARYANA, INDIA GURGAON -----

(57) Abstract :
ABSTRACT SYSTEM AND METHOD FOR DETERMINING PARAMETERS IN AN ELECTRIC GRID INFRASTRUCTURE BY AUTONOMOUS ROBOTIC DEVICES The present invention discloses a system for determining one or more parameters in an electric grid infrastructure by an autonomous robotic device. The robotic device (100) comprises a plurality of sensors (102, 120, 114, 116), an actuator (104), an enclosure (118), a plurality of electric motors (112), a plurality of wheels (108), a rotating arm (110), and a plurality of rigid links (106). The plurality of sensors (102, 120, 114, 116) comprises a pan-tilt-zoom camera (102), a pan-tilt assembly (120), a Light Detection and Ranging (LiDAR) sensor (116), and a stereo depth camera (114). The pan-tilt assembly (120) comprises a thermal infrared camera (224), an audio data capturing unit, and an Internet Protocol (IP) camera. The robotic device (100) may execute security patrols, identify individuals, and establish bidirectional communication to perform surveillance rounds, recognise the individuals, and establish interactive communication. FIG. 1

No. of Pages : 50 No. of Claims : 12

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006078 A

(19) INDIA

(22) Date of filing of Application :30/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : POTENT FRACTIONS OF ETHYL ACETATE EXTRACT OF VACHELLIA NILOTICA LEAVES AND METHODS THEREOF

(51) International classification :A23L0033105000, A61P0025000000, A61K0031000000, A61K0036480000, C12N0005078400

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present disclosure generally relates to a composition comprising leaf extract. More specifically, the present disclosure relates to a method for preparing an ethyl acetate extract of Vachellia nilotica and fractionating the ethyl acetate extract into potent fractions and their bioactivity against Osteosarcoma cell lines (MG 63). The present invention also relates to a process for identification of phytochemicals in the potent fractions from ethyl acetate extract of Vachellia nilotica, and their use for therapeutic application. The method is environmentally friendly and requires less time compared to other methods

No. of Pages : 28 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :30/01/2024

(21) Application No.202411006095 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM FOR REAL-TIME EVENT DETECTION AND RESPONSE IN CYBER SECURITY AND METHOD THEREOF

(51) International classification	:G06F0021550000, G06N0020000000, G06K0009620000, G06N0020200000, H04L0043160000	(71)Name of Applicant : 1)Chitkara University Address of Applicant :Chitkara University, Chandigarh - Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ----- 2)Bluest Mettle Solutions Private Limited Name of Applicant : NA Address of Applicant : NA
(86) International Application No	:NA	(72)Name of Inventor :
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Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The present disclosure relates to a system for real-time event detection and response in cyber security using adaptive machine learning framework and network traffic analysis. The system (100) includes a data collection unit (102), a preprocessing unit (104), an anomaly detection unit (106), an alert unit (108), a cloud server (110) and a processor (112). A real-time response mechanism is triggered to a plurality of users and organizations to take appropriate action upon detecting a potential security event. The present disclosure further relates to a method for real-time event detection and response in cyber security. Advantageously the present invention relates to a method for utilization of machine learning algorithms and network traffic analysis to enhance effectiveness and efficiency of cybersecurity systems.

No. of Pages : 23 No. of Claims : 10

(54) Title of the invention : COGNITIVE QUESTIONING SYSTEM WITH ADAPTIVE TEMPLATE GENERATION AND METHOD THEREOF

(51) International classification :G06Q0050200000, G06N0005020000, G06F0040300000, G09B0019000000, G06F0016242000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Chitkara University Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ----- 2)Bluest Mettle Solutions Private Limited Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)MISHRA, Saket Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune ----- 2)SINGH, Dhiraj Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune ----- 3)THAKUR, Ananya Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

(57) Abstract :
The present disclosure pertains to the field of computer science and natural language processing. More specifically, it relates to a cognitive questioning system with adaptive template generation and method thereof. The system (102) includes a data processing module (212), a question template generation module (214), a cognitive reasoning module (216) and a user feedback analysis module (218). The question templates are dynamically adjusted and generated in real time based on feedback of the users and of specific domain. Advantageously the present disclosure relates to a system that combines cognitive abilities and adaptability to enhance the process of question generation, making it applicable in various domains such as education, training, knowledge acquisition, and comprehension.

No. of Pages : 28 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006181 A

(19) INDIA

(22) Date of filing of Application :30/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : METHOD AND SYSTEM FOR DEPLOYING A WORKLOAD

(51) International classification	:G06F0008600000, G16H0020100000, G16H0050200000, G06Q0030060000, G16H0070200000	(71)Name of Applicant : 1)HCL Technologies Limited Address of Applicant :806, Siddharth, 96, Nehru Place, New Delhi - 110019, INDIA Delhi -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor : 1)Abhishek Kumar Srivastava Address of Applicant :HCL Technologies Limited A- 8 & 9, Block A, Sector 60, Noida, Uttar Pradesh 201301 Noida -----
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(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

METHOD AND SYSTEM FOR DEPLOYING A WORKLOAD ABSTRACT The disclosure relates to a method and system of deploying a workload. The method may include assessing a plurality of parameters associated with a workload and a set of sub-parameters associated with each of the plurality of parameters, corresponding to a deployment model selection. The method may further include obtaining a rating assigned to each sub-parameter, determining a sub-parameter weighted score for each sub-parameter, and determining a parameter score for the parameter. The method may further include obtaining a plurality of parameter weighted scores for the plurality of parameters, and combining the plurality of parameter weighted scores for the plurality of parameters, to determine an overall score for the workload. The method may further include comparing the overall score for workload with one or more threshold values, and selecting a deployment model for the deployment of the workload, based on the comparison. [To be published with FIG. 2]

No. of Pages : 50 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005895 A

(19) INDIA

(22) Date of filing of Application :29/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : REAL TIME WATER VOLUME MEASUREMENT SYSTEM IN CYLINDRICAL WATER TANK

(51) International classification :G01N0033240000, G01V0011000000, B08B0003120000, G01B0011000000, G01S0015931000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT Real time volume measurement system in cylindrical water tank The present disclosure introduces a real time volume measurement system in cylindrical water tank designed to address the challenges of accurate water management in cylindrical tanks. It comprises of cylindrical water tank 102, ultrasonic sensor 104, microcontroller 106, LCD display 108, buzzer 110 and power source 112. The ultrasonic sensor measures water levels, allowing the microcontroller to perform real-time calculations for precise volume determination. REFERENCE FIGURE 1

No. of Pages : 18 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :29/01/2024

(21) Application No.202411005896 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : IMPLEMENTATION OF WIRELESS COMMUNICATION BETWEEN FPGA AND SMARTPHONE USING PMOD BLUETOOTH

(51) International classification :H04W0004800000, G06F0030331000, G06F0030340000, A61K0036870000, A61P0009000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT Wireless communication system between FPGA and smartphone using PMOD Bluetooth The present disclosure introduces a wireless communication system between FPGA and smartphone using PMOD Bluetooth, revolutionizing data exchange in electronic applications. It comprises of Field-Programmable Gate Array (FPGA) 102, Bluetooth module 104, FPGA Board 106, Vivado Design Suite 108, Vitis IDE 110, UART protocol design 112, microprocessor 114, USB-UART bridge 116, android application 118 and LED indicator 120. The system employs a FPGA board hosting a processor, facilitating seamless integration and efficient parallel processing. REFERENCE FIG 1

No. of Pages : 24 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :29/01/2024

(21) Application No.202411005897 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : COATED POLYMEROSOME PHARMACEUTICAL COMPOSITIONS FOR TARGETED DELIVERY OF TYROSINE KINASE INHIBITORS

(51) International classification :A61P0035000000, A61P0043000000, A61K0009107000, A61P0037060000, A61P0029000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT Coated Polymerosome Pharmaceutical Compositions for Targeted Delivery of Kinase Inhibitors The present invention discloses coated polymerosome compositions designed for efficient and targeted delivery of tyrosine kinase inhibitors. The polymerosomes, composed of amphiphilic block copolymers, are coated with poly(lactide)—tocopheryl polyethylene glycol succinate (PLA-TPGS) to enhance stability and improve pharmacokinetics. The hydrophobic core of the polymerosome encapsulates a tyrosine kinase inhibitor, such as Alectinib hydrochloride, ensuring controlled release and enhanced therapeutic efficacy.

No. of Pages : 18 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :30/01/2024

(21) Application No.202411005900 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : OZONE-ENHANCED OIL THERAPY A SOLUTION FOR EASING TEMPOROMANDIBULAR JOINT DISCOMFORT

(51) International classification :A61P0001040000, A61P0029000000, A61P0001120000, A61P0025060000, A61N0001360000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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5)Dr. Vikram Sharma
6)Dr. Shubhangi Mishra
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(57) Abstract :
The invention pertains to the development of Ozone Oil Therapy for Temporomandibular Pain Relief, focusing on a novel approach to alleviate discomfort associated with temporomandibular joint (TMJ) pain. This therapy involves the application of ozone-infused oil to address TMJ-related discomfort and promote pain relief.

No. of Pages : 7 No. of Claims : 8

(54) Title of the invention : PRESERVATION AND ACCESSIBILITY OF ORAL HISTORIES THROUGH DIGITAL PLATFORMS

(51) International classification :G06F0016955000, H04M0001724720, G06T0019000000, G11B0020000000, G11B0020100000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)BANASTHALI VIDYAPITH Address of Applicant :BANASTHALI VIDYAPITH, P.O. BANASTHALI, BANASTHALI, RAJASTHAN, INDIA, 304022 JAIPUR Jaipur ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)PROF. INA SHASTRI Address of Applicant :BANASTHALI VIDYAPITH, P.O. BANASTHALI, BANASTHALI, RAJASTHAN, INDIA, 304022 JAIPUR Jaipur ----- 2)DR. ANSHUMAN SHASTRI Address of Applicant :BANASTHALI VIDYAPITH, P.O. BANASTHALI, BANASTHALI, RAJASTHAN, INDIA, 304022 JAIPUR Jaipur ----- 3)DR. SRISHTI SAH JAGATI Address of Applicant :BANASTHALI VIDYAPITH, P.O. BANASTHALI, BANASTHALI, RAJASTHAN, INDIA, 304022 JAIPUR Jaipur ----- 4)DR. NISHEETH JOSHI Address of Applicant :BANASTHALI VIDYAPITH, P.O. BANASTHALI, BANASTHALI, RAJASTHAN, INDIA, 304022 JAIPUR Jaipur -----

(57) Abstract :
PRESERVATION AND ACCESSIBILITY OF ORAL HISTORIES THROUGH DIGITAL PLATFORMS Abstract A digital system designed to conserve and facilitate access to oral histories. The system incorporates a digital storage module tailored to house audio recordings of oral narratives. In tandem, a transcription module is equipped to convert said audio recordings into text, ensuring accessibility and ease of interpretation. A search engine module is integrated, enabling users to seamlessly locate and extract oral histories using specific criteria. Complementing the arrangement, a user interface module is connected to both the digital storage and transcription modules, offering an interactive platform to visually present and audibly play back the oral histories. Additionally, a metadata association module is embedded, tasked with appending pertinent metadata to each oral history, enhancing context and research capabilities. Dated 13 January 2024 Pallavi Sinha IN/PA- 4068 Agent for the Applicant

No. of Pages : 27 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005934 A

(19) INDIA

(22) Date of filing of Application :30/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : APPLICATION OF GEOGRAPHIC INFORMATION SYSTEMS (GIS) IN HISTORICAL STUDIES

(51) International classification :G06F0016290000, G06Q0010100000, G06F0016248000, G06F0016245700, G06Q0010040000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

Application of Geographic Information Systems (GIS) in Historical Studies Abstract The present disclosure relates to a comprehensive system for enhanced historical analysis, incorporating a geographic information system (GIS) module capable of interpreting, rendering, and displaying complex geospatial data. Central to the system is a robust historical data database that meticulously stores temporal data points intricately linked to specific geographical locations. The data is accessed through a user-friendly interface that presents said geographical locations in conjunction with a chronological timeline, enabling the simultaneous visualization of spatial and temporal data. A sophisticated correlation module is integrated into the system to identify and highlight relationships between disparate historical events, drawing on their geographic proximity to provide insights. Furthermore, the system includes a predictive engine that synergizes the capabilities of the GIS module with the extensive historical data database to suggest potential sites of historical relevance, informed by discernible patterns and trends in the stored data. The system opens up new avenues for historical research, education, and preservation, leveraging advanced technology to deepen our understanding of the past. Dated 13 January 2024 Pallavi Sinha IN/PA- 4068 Agent for the Applicant

No. of Pages : 27 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :30/01/2024

(21) Application No.202411005935 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : VIRTUAL REALITY IN RECREATING AND STUDYING HISTORICAL EVENTS

(51) International classification :G06F0003010000, G06Q0030020000, G06N0020000000, H04L0067500000, G06F0003048420

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

Virtual Reality in Recreating and Studying Historical Events Abstract The present disclosure unveils an advanced system designed for the recreation and in-depth study of historical events using the immersive capabilities of virtual reality technology. At the core of the system is a virtual reality engine adept at rendering rich, three-dimensional environments that meticulously represent various historical settings. The engine draws from a comprehensive historical event database replete with a diverse array of multimedia data, including text, images, videos, and audio recordings, each shedding light on different facets of historical events. An integration module is expertly designed to operatively couple the virtual reality engine with the historical event database, ensuring that the rendered environments are populated with multimedia data that is contextually pertinent and enriches the historical narrative. User interaction within said virtual environments is facilitated through a sophisticated user interface device, which also provides an intuitive mechanism for users to seamlessly navigate through a timeline of historical events. Complementing the interface device is a contextual analysis module powered by machine learning algorithms. The module diligently analyzes user interactions and, leveraging the insights, curates and delivers personalized educational content that enhances the user's understanding and appreciation of the historical events. Altogether, the system represents a leap forward in the field of historical education and research, harnessing the transformative potential of virtual reality to bring history to life in an engaging and insightful manner. Dated 13 January 2024 Pallavi Sinha IN/PA- 4068 Agent for the Applicant

No. of Pages : 27 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006187 A

(19) INDIA

(22) Date of filing of Application :30/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD FOR AUTOMATED WORKFLOW ADMINISTRATION OF END-TO-END GOVERNANCE, RISK, AND COMPLIANCE (GRC)

(51) International classification	:G06Q0010060000, G06F0021620000, G06Q0030000000, H04M0001724150, G06Q0010100000	(71)Name of Applicant : 1)Shyam Varda Address of Applicant :CEO, Wens Digital GmbH, Eremitagestrasse 7, 4153 Reinach, Switzerland -----
(86) International Application No	:NA	2)Rajat Dubey Name of Applicant : NA
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(87) International Publication No	: NA	(72)Name of Inventor :
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(62) Divisional to Application Number	:NA	Country- USA, Zip code – 78727 -----
Filing Date	:NA	

(57) Abstract :

ABSTRACT SYSTEM AND METHOD FOR AUTOMATED WORKFLOW ADMINISTRATION OF END-TO-END GOVERNANCE, RISK, AND COMPLIANCE (GRC) A system (102) for automated workflow administration of end-to-end governance, risk, and compliance (GRC), comprising a processor (104) configured to receive, manage, and control data. Furthermore, the processor (104) is configured to control governance, provide end-to-end tracking of audits, central views of control assessments and a display unit (106) configured to display a dashboard and reporting capabilities, compliance with data privacy regulations, configurability at tenant and country levels, support for notifications, multiple language support, and multi-tenant hosting. FIG. 1

No. of Pages : 27 No. of Claims : 10

(54) Title of the invention : COMPACT 4-PORT MICROSTRIP LINE-FED C-SHAPED WEARABLE MIMO ANTENNA FOR WIDEBAND WIRELESS APPLICATIONS

(51) International classification :H01Q0001480000, H01Q0021280000, H01Q0001240000, H01Q0001520000, H01Q0001380000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Saifullah Khalid Address of Applicant :C 1945 Rajajipuram, Near SKD Academy ----- 2)Abhay Krishna Yadav 3)Dr. Sudhanshu Verma 4)Dr. Saurabh Singh 5)Dr. Anand Sharma 6)GOURAB DAS Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Abhay Krishna Yadav Address of Applicant :LECTURER, GOVERNMENT POLYTECHNIC GONDA, DEPARTMENT OF TECHNICAL EDUCATION UP. Email: ncvtexaminer@gmail.com Mobile:8765898843 GONDA ----- 2)Dr. Sudhanshu Verma Address of Applicant :Assistant Professor, ECE DEPARTMENT, MMM UNIVERSITY OF TECHNOLOGY GORAKHPUR-273010 email: svermaeced@gmail.com mob: 7376251972 GORAKHPUR ----- 3)Dr. Saurabh Singh Address of Applicant :Faculty of Electronics and Communication Engineering Deptt. Netaji Subhash University of Technology, New Delhi - 110078, INDIA Mob- 8765165559 Email ID - singh.saurabh047@gmail.com Delhi ----- 4)Dr. Anand Sharma Address of Applicant :Assistant Professor, Motilal Nehru National Institute of Technology Allahabad, Prayagraj-211004, Uttar Pradesh, India Prayagraj ----- 5)GOURAB DAS Address of Applicant :Assistant Professor, Punjab Engineering College (Deemed to be University), Chandigarh Email: gourabdas@pec.edu.in Mobile: 7991134104 Chandigarh ----- 6)Dr. Saifullah Khalid Address of Applicant :Civil Aviation Research Organization Hyderabad -----

(57) Abstract :

This invention presents a novel compact, 4-port microstrip line-fed C-shaped radiator (CSR) based wideband MIMO antenna for wearable applications, achieving a notable 75.2% return loss bandwidth (3.75 – 8.27 GHz) and over 25 dB isolation. It introduces a rectangular notch with a thin slit on the ground plane, enhancing performance metrics such as ECC (< 0.02), diversity gain (> 9.9), and maintaining a SAR below 1 W/Kg. Designed for the C-band, including WLAN, Wi-MAX, and ISM band applications, the antenna's tested results confirm its efficacy, highlighting its potential as a superior choice for wearable wireless technology.

No. of Pages : 33 No. of Claims : 5

(54) Title of the invention : OBJECT AND TEXT RECOGNITION WITH REAL-TIME AUDIO FEEDBACK FOR VISUALLY IMPAIRED INDIVIDUALS

(51) International classification :G09B0021000000, A61H0003060000, G06F0003160000, G10L0015220000, G06F0003048500 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Shri Ram Murti Smarak College of Engineering and Technology Address of Applicant :Ram Murti Puram, 13 KM, Bareilly - Nainital Rd, Bhoji Pura, Uttar Pradesh, India Bareilly ----- 2)Somya Kumar 3)Shivangi Saxena 4)Tanya Saxena 5)Esha Mittal 6)Dev Murti 7)Dr. Mohd Wazih Ahmad 8)Er. Nazia Parveen 9)Dr. Prabhakar Gupta 10)Dr Pradeep Kumar Sharma Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Somya Kumar Address of Applicant :Shri Ram Murti Smarak College of Engineering and Technology, Ram Murti Puram, 13 KM, Bareilly - Nainital Rd, Bhoji Pura, Uttar Pradesh, India Bareilly ----- 2)Shivangi Saxena Address of Applicant :Shri Ram Murti Smarak College of Engineering and Technology, Ram Murti Puram, 13 KM, Bareilly - Nainital Rd, Bhoji Pura, Uttar Pradesh, India Bareilly ----- 3)Tanya Saxena Address of Applicant :Shri Ram Murti Smarak College of Engineering and Technology, Ram Murti Puram, 13 KM, Bareilly - Nainital Rd, Bhoji Pura, Uttar Pradesh, India Bareilly ----- 4)Esha Mittal Address of Applicant :Shri Ram Murti Smarak College of Engineering and Technology, Ram Murti Puram, 13 KM, Bareilly - Nainital Rd, Bhoji Pura, Uttar Pradesh, India Bareilly ----- 5)Dev Murti Address of Applicant :Shri Ram Murti Smarak Trust, Ram Murti Puram, 13 KM, Bareilly - Nainital Rd, Bhoji Pura, Uttar Pradesh, India Bareilly ----- 6)Dr. Mohd Wazih Ahmad Address of Applicant :Shri Ram Murti Smarak College of Engineering and Technology, Ram Murti Puram, 13 KM, Bareilly - Nainital Rd, Bhoji Pura, Uttar Pradesh, India Bareilly ----- 7)Er. Nazia Parveen Address of Applicant :Shri Ram Murti Smarak College of Engineering and Technology, Ram Murti Puram, 13 KM, Bareilly - Nainital Rd, Bhoji Pura, Uttar Pradesh, India Bareilly ----- 8)Dr. Prabhakar Gupta Address of Applicant :Shri Ram Murti Smarak College of Engineering and Technology, Ram Murti Puram, 13 KM, Bareilly - Nainital Rd, Bhoji Pura, Uttar Pradesh, India Bareilly ----- 9)Dr Pradeep Kumar Sharma Address of Applicant :Shri Ram Murti Smarak College of Engineering and Technology, Ram Murti Puram, 13 KM, Bareilly - Nainital Rd, Bhoji Pura, Uttar Pradesh, India Bareilly -----

(57) Abstract :
OBJECT AND TEXT RECOGNITION WITH REAL-TIME AUDIO FEEDBACK FOR VISUALLY IMPAIRED INDIVIDUALS The present invention relates to system for object detection with voice assistance tailored for individuals with visual impairments, particularly the blind. The system employs advanced computer vision techniques to accurately recognize and describe various objects, enhancing users' understanding of their surroundings. Offering real-time feedback through an intuitive and user-friendly interface, the system assists blind individuals in navigating their environment independently and safely. The technology not only identifies obstacles but also provides guidance and hazard detection, contributing to informed decision-making. With additional text recognition capabilities and language translation features, the system empowers users to access crucial information autonomously. The comprehensive design ensures portability and seamless integration with wearable devices or smartphones, enhancing accessibility and promoting greater independence for individuals with visual impairments.

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006284 A

(19) INDIA

(22) Date of filing of Application :31/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM FOR PREDICTION AND CLASSIFICATION OF CYBER-ATTACK USING NEURAL EMBEDDINGS AND METHOD THEREOF

(51) International classification	:G06N0003080000, G06N0003040000, G06K0009620000, G06N0020000000, G06F0040300000	(71)Name of Applicant : 1)Chitkara University Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ----- 2)Bluest Mettle Solutions Private Limited Name of Applicant : NA Address of Applicant : NA
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Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The present disclosure pertains to the field of cybersecurity. More specifically, it relates to a system and method for prediction and classification of cyber-attack using neural embeddings and pattern of life data analysis. The system (102) includes a data collection module (212), a preprocessing module (214), a neural embedding module (216), a training module (218), a pattern module (220), a multimodal analysis module (222), and other module(s) (224). The capabilities of the neural embeddings and the pattern of life data analysis are combined to detect and classify a plurality of anomalies and deviations from the established patterns. Advantageously the present disclosure relates to an enhanced system and method that leverages neural embeddings and pattern of life data analysis to improve the accuracy and efficiency of cyber-attack prediction and classification.

No. of Pages : 30 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005405 A

(19) INDIA

(22) Date of filing of Application :26/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : TRANSFORMING PLASTIC WASTE INTO SUSTAINABLE I-SECTION ROAD PAVER BLOCKS

(51) International classification :E01C0019480000, B29B0017000000, C08K0007140000, C04B0033132000, C08L0067020000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

TRANSFORMING PLASTIC WASTE INTO SUSTAINABLE I-SECTION ROAD PAVER BLOCKS: INNOVATIONS IN CONSTRUCTION MATERIALS This invention addresses the pressing issue of plastic waste by repurposing Polyethylene Terephthalate (PET) plastic as a key component in producing I-section road paver blocks. The innovation presents a novel method for manufacturing paver blocks by integrating a specific ratio of PET plastic waste with M-Sand (manufactured sand), resulting in construction materials that are both durable and environmentally friendly. Extensive experimentation has led to determining an optimal 1:2 mix ratio of PET to M-Sand, delivering superior compressive strength compared to traditional concrete blocks. Rigorous testing, including compressive strength assessments and ultrasonic pulse velocity testing, confirms the high quality of the resulting I-section and brick paver blocks. This innovation contributes to waste reduction and offers an improved alternative to conventional building materials, with potential applications spanning the construction industry.

No. of Pages : 18 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :26/01/2024

(21) Application No.202411005417 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : METHOD FOR THE SYNTHESIS OF BIMETALLIC NANOPARTICLES

(51) International classification :A61K0036580000, B82Y0040000000, B22F0009240000, B82Y0030000000, G01N0021330000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention relates to a method for the synthesis method for bimetallic nanoparticles (Fe-Ni BMNPs) via a reduction route. The process involves preparing a precursor salt solution using equal volumes of ferric chloride and nickel nitrate, with optimization of concentration and volume ratios. Azadirachta Indica leaf extract serves as a dual reducing and capping agent. The synthesis, conducted at 60°C, includes sequential additions and stirring, monitored by UV-Visible spectrophotometry. The resulting yellowish-brown solution undergoes centrifugation and sonication, yielding finely dispersed Fe-Ni BMNPs. This eco-friendly method offers a scalable approach for homogeneous nanoparticle synthesis, showcasing potential applications in catalysis and beyond.

No. of Pages : 28 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :27/01/2024

(21) Application No.202411005444 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A VIRTUAL REALITY (VR) LEARNING ASSESSMENT SYSTEM

(51) International classification :G09B0007020000, G09B0007000000, G09B0009000000, G06F0030200000, G09B0005020000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
ABSTRACT The present invention relates to a virtual reality-based assessment system for evaluating students' knowledge and skills through immersive scenarios and simulations. The virtual reality-based assessment system comprises a scenario generation component, a simulation engine component, a adaptive assessment algorithm component, and a user interface (UI) component. The scenario generation component is configured to generate diverse and realistic scenarios relevant to the subject matter being assessed. The scenario generation component is designed to challenge students and evaluate their knowledge and skills. The simulation engine component is configured to execute interactive simulations within the generated scenarios, the engine handling dynamic elements, events, and responses to create a responsive and realistic virtual environment for student interaction.. The user interface (UI) component is configured to providing a user-friendly interface for students and educators

No. of Pages : 10 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :27/01/2024

(21) Application No.202411005445 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A MEDICAL INSURANCE CLAIM SETTLEMENT USING BLOCKCHAIN TECHNOLOGY

(51) International classification :G06Q0040080000, H04L0009320000, G06Q0040040000, G06Q0010100000, H04L0067104000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr. Mrinal Pandey Professor Address of Applicant :Professor, Department of Computer science and Technology Manav Rachna University, Manav Rachna Campus Rd, Aravali Hills, Gadakhor Basti Village, Sector 43, Faridabad, Haryana 121004 ----- 2)Dr. Mamta Arora 3)Dr. Shraddha Arora Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Mrinal Pandey Professor Address of Applicant :Professor, Department of Computer science and Technology Manav Rachna University, Manav Rachna Campus Rd, Aravali Hills, Gadakhor Basti Village, Sector 43, Faridabad, Haryana 121004 ----- 2)Dr. Mamta Arora Address of Applicant :Associate Professor, Department of Computer science and Technology , Manav Rachna Campus Rd, Aravali Hills, Gadakhor Basti Village, Sector 43, Faridabad, Haryana 121004 ----- 3)Dr. Shraddha Arora Address of Applicant :Assistant professor,The North Cap University, Huda, Sector 23A, Gurugram, Haryana 122017 -----

(57) Abstract :

ABSTRACT The present invention relates to a medical insurance claim settlement using block chain technology. The system is designed to overcome challenges in conventional systems, the solution introduces automated, decentralized processes to enhance efficiency and transparency. The Polygon blockchain's features, including reduced transaction costs, amplify the system's cost-effectiveness. Security measures such as decentralized identity management and cryptographic hashing reinforce privacy. Automated information extraction via Optical Character Recognition (OCR) streamlines document validation, reducing manual efforts. A user-friendly decentralized application (Dapp) facilitates seamless interactions, while a token-based incentive mechanism on Polygon motivates active participation. This innovative system offers a transformative approach to medical insurance claim settlements, promising heightened efficiency, transparency, and security in a user-centric environment.

No. of Pages : 13 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005448 A

(19) INDIA

(22) Date of filing of Application :27/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : JANTA WORLD TIME

(51) International classification :G04G0009000000, G04B0019220000, H04M0001724510, G09B0027080000, H04M0001724570

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

To able to show time of diffirent countries on a single wall clock

No. of Pages : 8 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005461 A

(19) INDIA

(22) Date of filing of Application :27/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : APPLICATION OF LINEAR PROGRAMMING IN SMALL INDUSTRIES FOR PROFIT MAXIMIZATION OF PRODUCT OF KACHORI AND SAMOSA

(51) International classification :G06Q0010060000, G06Q0030020000, G06Q0010040000, H04N0021438000, C23C0002060000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Linear programming is a powerful mathematical technique that has found widespread applications in various industries, including small-scale enterprises. This research explores the application of linear programming in small industries, specifically focusing on profit maximization in the production of Kachori and Samosa, popular snacks in Kota region. The main objective of the present mathematical Model is to find application of linear programming in small industry and for this to determine optimal production planning for preparation of Maida items such as Kachori and Samosa. The goal of this model is to achieve maximum profit in minimum expenditure.

No. of Pages : 6 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :27/01/2024

(21) Application No.202411005462 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : DESIGN, SYNTHESIS, AND IN-VITRO ANTIMICROBIAL EVALUATION OF A METHOXY DIHYDROACRIDINE DERIVATIVE

(51) International classification :G01N0024080000, A61P0031040000, B01J0031220000, C08G0061020000, C07J0041000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention relates to the synthesis of methoxy dihydroacridine derivatives with varying aromatic substituents, namely phenyl, 4-chlorophenyl, and 4-methoxyphenyl. The compounds are synthesized through a method involving the reaction of 2-methoxyacridone with selected aromatic amines in the presence of zinc chloride. The resulting compounds are characterized using infrared spectroscopy (IR) and proton nuclear magnetic resonance (1H-NMR). Physicochemical characterizations reveal distinct properties for each compound, including yield, melting point, and mobility in chromatography. Antimicrobial activity testing against bacterial and fungal strains demonstrates promising efficacy, with compounds showing comparable or superior activity indices to standard drugs.

No. of Pages : 12 No. of Claims : 4

(54) Title of the invention : IOT AND AI-BASED WATER BODIES MONITORING SYSTEM FOR INDUSTRIAL EFFLUENT DETECTION

(51) International classification :G06Q0010060000, G06N0020000000, G01N0033180000, H04L0067120000, G06N0005040000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Department of Applied Sciences and Humanities IIMT College of Engineering, Greater Noida Address of Applicant :Department of Applied Sciences and Humanities IIMT College of Engineering, Greater Noida Noida --- ----- 2)IIMT College of Engineering, Greater Noida Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. MONIKA DUBEY Address of Applicant :Assistant Professor Department of Applied Sciences and Humanities IIMT College of Engineering, Greater Noida NOIDA ----- 2)Dr. MONIKA TYAGi Address of Applicant :Associate professor Department of Applied Sciences and Humanities IIMT College of Engineering, Greater Noida NOIDA -----

(57) Abstract :
The IoT and AI-Based Water Bodies Monitoring System for Industrial Effluent Detection invention presents an innovative solution to address the pressing challenges of industrial effluent discharge into water bodies. Leveraging Internet of Things (IoT) and Artificial Intelligence (AI) technologies, the system continuously monitors water quality parameters, with a primary focus on pH levels critical to marine life (target range: 6 to 8). The key components include IoT sensors, a data processing unit, and a cloud-based AI system. The operational workflow involves IoT sensors collecting real-time pH data, which is then processed by a microcontroller or single board computer before being transmitted to the cloud-based AI system. Machine learning models analyze the data, detecting abnormal pH patterns indicative of industrial effluent waste. In case of deviations, the system triggers immediate alerts to monitoring officers through a web-based dashboard or other specified channels. The system's benefits encompass real-time monitoring, cloud-based accessibility, and data analysis capabilities, providing monitoring officers with valuable insights for informed decision-making. By ensuring the environmental sustainability of water bodies, the invention aligns with the growing need for advanced, technology-driven solutions to combat industrial pollution. Potential extensions include the integration of additional water quality parameters, scalability for monitoring multiple water bodies, and collaboration with regulatory bodies for enhanced compliance monitoring. This invention exemplifies a commitment to environmental conservation through the implementation of intelligent monitoring systems.

No. of Pages : 10 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :27/01/2024

(21) Application No.202411005465 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : THYMOQUINONE LOADED CHITOSAN NANOPARTICLES THEIR IN-VITRO EVALUATION AND PREPARATION METHOD THEREOF

(51) International classification :A61K0009510000, A61K0031122000, C08B0037080000, A61K0009000000, A61K0009500000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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6)Dr. Gaurav Kant Saraogi

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8)Dr. Arpna Indurkha

9)Mr. Satendra Kumar

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(57) Abstract :

The present invention relates to Thymoquinone loaded chitosan nanoparticles. The formulation of Thymoquinone loaded chitosan nanoparticles, comprising of Thymoquinone; chitosan; and sodium tripolyphosphate; wherein the drug:polymer ratio is 2.5:1; the amount of Thymoquinone is in the range of 17.5mg to 52.5mg, chitosan is 1.75 mg/ml and sodium tripolyphosphate is 2 mg/ml. 2. The Thymoquinone-chitosan nanoparticles are in the size range of 212.7±8.4nm to 341.3±4.7nm; the nanoparticles drug entrapment efficiency is in the range of 75.1±3.8 to 85.3±3.5%; the polydispersity index of nanoparticles ranges from 0.391±0.065 to 0.462±0.064; the nanoparticles percent yield of nanoparticles is in the range of 79.42±4.62 to 86.12±4.68; the nanoparticles loading capacity is in the range of 63.37 to 53.18%. The present invention provides a process for the preparation of Thymoquinone loaded chitosan nanoparticles. The process for the preparation of Thymoquinone loaded chitosan nanoparticles comprises of dissolving chitosan in acetic acid; dissolving Thymoquinone in chitosan, dissolving sodium tripolyphosphate in distilled water; adding sodium tripolyphosphate in chitosan drug solution, stirring and recovering the nanoparticles of the formulation. Thymoquinone loaded chitosan nanoparticles of the present invention are useful for the drug delivery system.

No. of Pages : 30 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :31/01/2024

(21) Application No.202411006427 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SYSTEM AND METHOD FOR TALENT MANAGEMENT

(51) International classification :G06Q0010060000, G06Q0010100000, G06N0020000000, G09B0019000000, A61B0008080000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The invention presents a system and method for talent management, comprising: i) A data collection unit for collecting data related to employees in an organization, ii) A user interface connected to a central control unit wherein said user interface stores information fed by professionals within the organization; iii) A training set, at least one primary machine learning computer model to generate a plurality of machine predicted outcomes; and iv) A receiving module, to receive from one or more databases, data associated with the plurality of individuals, wherein a portion of the received data is received in response to predetermined data triggers configured to monitor changes to a current status of the received data. Fig 1.

No. of Pages : 14 No. of Claims : 6

(54) Title of the invention : SYSTEM AND A METHOD FOR DETECTING CORROSION ON A METAL

(51) International classification :G01N0017000000, G06F0003048420, G01N0017040000, G06F0021570000, G01N0017020000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

A method (1200) for detecting corrosion on a metal is disclosed. The method (1200) includes receiving one or more images of the metal from one or more cameras. Further, the method (1200) includes converting the received one or more images into one or more binary images. The method (1200) includes detecting, by using a corrosion detection-based Artificial Intelligence (AI) model, corroded parts and one or more non-corroded parts of the metal based on the binary images. Furthermore, the method (1200) includes calculating a percentage of the corrosion for the detected one or more corroded parts of the metal by using the corrosion detection-based AI model. In addition, the method (1200) includes displaying at least one of the one or more corroded parts of the metal, the non-corroded parts of the metal, and the calculated percentage of the corrosion on a user interface screen of an electronic device.

No. of Pages : 33 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411005604 A

(19) INDIA

(22) Date of filing of Application :29/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : TRANSDERMAL PATCH FORMULATION OF NANOSTRUCTURED LIPID CARRIERS LOADED WITH EXEMESTANE

(51) International classification :A61K0009510000, A61K0009107000, A61K0008920000, A61P0035000000, A61K0009000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Mr. Manish Kumar Rajoriya Address of Applicant :Associate Professor, CBS College of Pharmacy & Technology, Faridabad, Haryana, Pin Code: 121101 ----- 2)Mr. Raneev Thakur 3)Prof (Dr.) Sabahuddin Siddique 4)Prof (Dr.) Amiya Kanta Mishra 5)Prof (Dr.) Biswaranjan Ray 6)Imran Ahmad Bhat 7)Mr. Pankaj Kumar 8)Mr. Sourav Kumar Sahoo 9)Mrs. Reetika Ahuja 10)Dr.Vandana Kharb Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Mr. Manish Kumar Rajoriya Address of Applicant :Associate Professor, CBS College of Pharmacy & Technology, Faridabad, Haryana, Pin Code: 121101 ----- 2)Mr. Raneev Thakur Address of Applicant :Assistant Professor, Government College Of Pharmacy Rohru, Tehsil Rohru, Shimla, Himachal Pradesh, Pin Code: 171207 ----- 3)Prof (Dr.) Sabahuddin Siddique Address of Applicant :Professor and Principal, Moyna Pharmaceutical Institute, Moyna, Purba Medinipur, West Bengal, Pin Code: 721629 ----- 4)Prof (Dr.) Amiya Kanta Mishra Address of Applicant :Principal, College of Pharmaceutical Sciences, Puri, Puri-Konark Marine Drive Road, Baliguali, Puri-2, Odisha, Pin Code: 752002 ----- 5)Prof (Dr.) Biswaranjan Ray Address of Applicant :Professor, PG. Department of Pharmacology, College of Pharmaceutical Sciences, Puri, Odisha, India, Pin Code:752004 ----- 6)Imran Ahmad Bhat Address of Applicant :Assistant Professor, Sachdeva College of Pharmacy, Gharuan, Kharar, Mohali, Punjab, Pin Code: 140413 ----- 7)Mr. Pankaj Kumar Address of Applicant :Associate Professor, Sachdeva College of Pharmacy, Gharuan, Kharar, Mohali, Punjab, Pin Code: 140413 ----- 8)Mr. Sourav Kumar Sahoo Address of Applicant :Assistant Professor, Luckky College Of Pharmaceutical Sciences, Mahavir Nagar, Paniora, Palashpur, Khurda, Pin Code: 752054 ----- 9)Mrs. Reetika Ahuja Address of Applicant :Assistant Professor, Sachdeva College of Pharmacy, Gharuan, Mohali, Punjab, Pin Code: 140413 ----- 10)Dr.Vandana Kharb Address of Applicant :Professor, Sachdeva College of Pharmacy, Gharuan, Kharar, Mohali, Punjab, Pin Code: 140413 -----

(57) Abstract :

The present invention relates to method for preparing Nanostructured Lipid Carriers (NLCs) loaded with Exemestane, employing a combination of Compritol 888 ATO, Capryol 90, and Tocopherol acetate. The lipid components undergo controlled melting, followed by high-speed homogenization and ultrasonication, resulting in stable NLCs. Characterization techniques confirm uniform particle sizes, and evaluation studies reveal a sustained drug release profile of 62% over 24 hours. Additionally, stability assessments demonstrate minimal changes after three months at 25°C. The NLC composition, with its carefully selected lipid components, highlights the potential of this formulation for controlled and prolonged drug delivery, particularly in breast cancer treatment.

No. of Pages : 12 No. of Claims : 2

(54) Title of the invention : A NOVEL HUMAN RESOURCE MANAGEMENT SYSTEM AND EMPLOYEE COMPENSATION PLANNING SYSTEM

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(51) International classification	:G06Q0010100000, G06Q0010060000, G06Q0010000000, B60T0013660000, G09B0019000000	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
The proposed invention presents an innovative Human Resource Management (HRM) system and Employee Compensation Planning (ECP) system, seamlessly integrating automated HR processes and advanced compensation planning. The HRM component streamlines talent acquisition and personnel administration, while the ECP system introduces personalized compensation structures aligned with organizational goals. Rooted in scalability, adaptability, and ethical considerations, the system caters to diverse organizational needs. With a commitment to reshaping workplace cultures, the invention empowers HR professionals to make informed decisions, contributing to organizational growth, resilience, and a positive shift in the future of human capital management.

No. of Pages : 21 No. of Claims : 10

(54) Title of the invention : HESISTANT BIPOLAR-VALUED FUZZY GRAPHS: A NOVEL APPROACH FOR MATHEMATICAL ANALYSIS

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(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
The proposed invention, Hesitant Bipolar-Valued Fuzzy Graphs, introduces a pioneering framework that combines hesitant fuzzy sets and bipolar-valued fuzzy graphs to revolutionize mathematical analysis across diverse domains. Hesitant fuzzy sets enable the representation of uncertainty through multiple possible membership values, while bipolar-valued fuzzy graphs capture the complexity of relationships by incorporating positive and negative edge weights. This innovative approach finds applications in artificial intelligence, optimization, social network analysis, and decision support systems, addressing challenges posed by imprecise data, linguistic ambiguity, and intricate interactions. By allowing for nuanced modeling of cooperative and adversarial relationships, this invention empowers decision-makers to make more informed choices in a data-rich and uncertain world. Furthermore, it offers a versatile toolkit for mathematical analysis in environmental science, economics, healthcare, and other disciplines, ensuring that complex real-world problems can be tackled with precision and confidence.

No. of Pages : 20 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :31/01/2024

(21) Application No.202411006636 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A CONVENIENT DOSAGE FORM OF BETAMETHASONE LOADED OPHTHALMIC FORMULATION AND THE METHOD OF PREPARATION THEREOF

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(51) International classification	:A61K0009000000, A61K0031573000, A61K0009510000, A61P0027020000, A61K0047360000	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The present invention relates to the composition of a Betamethasone loaded ophthalmic formulation with minimal side-effect and convenient dosage form for the treatment of ocular diseases and method of preparation thereof. The composition of Betamethasone loaded ophthalmic formulation comprises, mixing of Betamethasone nanoparticles, polymers {Chitosan (mg)}, Sodium tri-polyphosphate (mg/100 ml), and Span 80 (1.5 % μ l) with continuous stirring at appropriate rpm. The Betamethasone loaded nanoparticles were prepared using ionotropic gelation method and the Polymeric chitosan nanoparticles was prepared employing ionic gelation method using Box-behnken design. The method of preparation of Betamethasone loaded ophthalmic formulation composition comprises, the preparation of Betamethasone loaded ophthalmic suspension; Centrifugation of suspension at 12000 rpm for 15 min; Removing of supernatant after centrifugation; and Separation and freezing of sediments for 48 hours and kept in dehydrated condition.

No. of Pages : 29 No. of Claims : 7

(54) Title of the invention : 3D SCANNING TECHNOLOGY FOR HISTORIC PRESERVATION AND RESTORATION OF HISTORICAL ARTEFACTS

(51) International classification :G01B0011250000, A61B0005000000, G06T0007000000, A61P0043000000, B23K0026080000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)BANASTHALI VIDYAPITH Address of Applicant :BANASTHALI VIDYAPITH, P.O. BANASTHALI, BANASTHALI, RAJASTHAN, INDIA, 304022 JAIPUR Jaipur ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)PROF. INA SHASTRI Address of Applicant :BANASTHALI VIDYAPITH, P.O. BANASTHALI, BANASTHALI, RAJASTHAN, INDIA, 304022 JAIPUR Jaipur ----- 2)DR. ANSHUMAN SHASTRI Address of Applicant :BANASTHALI VIDYAPITH, P.O. BANASTHALI, BANASTHALI, RAJASTHAN, INDIA, 304022 JAIPUR Jaipur ----- 3)DR. SRISHTI SAH JAGATI Address of Applicant :BANASTHALI VIDYAPITH, P.O. BANASTHALI, BANASTHALI, RAJASTHAN, INDIA, 304022 JAIPUR Jaipur ----- 4)MR. VIVEK KUMAR Address of Applicant :BANASTHALI VIDYAPITH, P.O. BANASTHALI, BANASTHALI, RAJASTHAN, INDIA, 304022 JAIPUR Jaipur ----- 5)MR. KAVI RAJ SAINI Address of Applicant :BANASTHALI VIDYAPITH, P.O. BANASTHALI, BANASTHALI, RAJASTHAN, INDIA, 304022 JAIPUR Jaipur -----

(57) Abstract :
3D Scanning Technology for Historic Preservation and Restoration of historical Artefacts Abstract The disclosure presented herein introduces a 3D scanning system specifically tailored for the preservation of historical artifacts. The system integrates a multispectral imaging sensor that is adept at capturing a diverse array of images of a historical artifact across various spectral bands. In synergy with the imaging sensor, a structured light projector is meticulously designed to cast a grid pattern onto the historical artifact, thereby enhancing the depth and detail captured in the images. Central to the operation of the system is a sophisticated processing unit that is operationally connected to both the multispectral imaging sensor and the structured light projector. The processing unit is programmed with advanced algorithms that enable the unit to generate a detailed 3D model of the historical artifact, utilizing the intricate interplay between the captured images and the projected grid pattern. Furthermore, the processing unit leverages the multispectral images to meticulously identify areas of degradation on the artifact, a crucial step in the preservation process. Said identified areas of degradation are then accurately mapped onto the 3D model, providing a comprehensive representation of the artifact's condition. The system represents a significant advancement in the field of historic preservation, offering a nuanced, non-invasive approach to the analysis and conservation of precious historical artifacts. Dated 13 January 2024 Pallavi Sinha IN/PA- 4068 Agent for the Applicant

No. of Pages : 27 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006746 A

(19) INDIA

(22) Date of filing of Application :01/02/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN INTELLIGENT WOBBLE BOARD WITH OVAL-BASED BALANCING DEVICE AND AUDIO FEEDBACK SYSTEM

(51) International classification :A63B0026000000, A63B0022180000, A63B0021000000, A63B0022160000, A63B0024000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention discloses an innovative balance board designed to enhance user stability and proprioception. The balance board comprises a durable platform providing support for the user, coupled with a unique oval-based balancing device featuring a strategically positioned center of mass. This balancing device is intended to be placed on the floor, allowing users to stand and move on the board to improve balance and coordination. Additionally, the balance board is equipped with an electronic sensor system that provides real-time audio feedback to the user during utilization. The electronic sensor system includes sensors embedded in the platform to detect user movements, offering a customizable audio feedback experience. The invention further incorporates features such as non-slip materials for platform construction, a detachable balancing device for convenient storage, and a rechargeable power source for sustainable use. The balance board's integration of technology not only enhances its effectiveness in balance training but also opens possibilities for data tracking and analysis through Bluetooth connectivity.

No. of Pages : 14 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006764 A

(19) INDIA

(22) Date of filing of Application :01/02/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : FORMULATION AND EVALUATION OF HERBOMINERAL SHAMPOO

(51) International classification :A61Q0005020000, A61K0036886000, A61K0008979400, A61Q0005120000, A61K0036840000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

(71)Name of Applicant :
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Address of Applicant :Associate Professor, Anand College of Pharmacy, Keetham, Agra, Uttar Pradesh, Pin Code: 282007. -----

(57) Abstract :

The present invention relates to formulation and evaluation of an herbomineral shampoo for cosmetic purposes using a blend of herbal ingredients. The herbal extract, comprising Reetha, Amla, Kala siris, Neem, Jatamansi, Bhringraj, Linseed, and Aloe vera, was prepared and combined with a mixture of SLES, glycerin, and propyl glycol. Methylparaben served as a preservative, while Aloe vera juice, tragacanth gum, and bentonite were incorporated to enhance thickness. The resulting herbomineral shampoo exhibited a thick semisolid consistency, light brown color, significant foam-producing ability, and optimal fluidity. With a pH range of 6-6.5 at varying temperatures, the shampoo demonstrated acidic qualities, indicative of high quality for daily use. The results indicates or confirms the efficacy of the herbal shampoo for routine hair care.

No. of Pages : 18 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :31/01/2024

(21) Application No.202411006480 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A DEVICE FOR MEASURING AND MONITORING COLOUR CHANGE OF TURBID FLUIDS

(51) International classification :A61B0005000000, G01N0021780000, G01N0021770000, G01N0033543000, G01N0021270000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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Name of Applicant : NA

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(57) Abstract :

The present disclosure relates to a device (100) for monitoring and measuring change of colour of the turbid fluid. The device includes a PCB (114) integrated with one or more light sources (104), a baffle unit (112), a detector unit (106), and a heating block (102) to hold one or more containers (110) with the turbid fluid (116). The turbid fluid (116) highly absorbs a first wavelength of light while a second wavelength and optionally a third wavelength of light is absorbed weakly for reference. All the wavelengths of light are reflected back to the detector unit (106) for determining an absorbance of the light after scatter-correction, and subsequently the colour change of the turbid fluid (116). A rate of change of reaction in the turbid fluid is estimated for predicting the time that would be taken for required colour change of the turbid fluid (116).

No. of Pages : 30 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006534 A

(19) INDIA

(22) Date of filing of Application :31/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : DESIGN FOR AN ARTIFICIAL INTELLIGENCE BASED FRAMEWORK FOR UNDERSTANDING THE IMPACT OF HEALTH CARE PRODUCT MARKETING ON WOMEN'S HEALTH

(51) International classification :G06Q0030020000, G16H0050200000, G06K0009620000, G16H0010600000, G16H0050300000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Design for an Artificial Intelligence Based Framework for Understanding the Impact of Health care Product Marketing on women's health is the proposed invention. The proposed invention focuses on understanding the functions of Women's Health Care Products. The invention focuses on analyzing the parameters of Impact of Health care Product Marketing on women's health using algorithms of Artificial Intelligence.

No. of Pages : 13 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :31/01/2024

(21) Application No.202411006535 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : ARTIFICIAL INTELLIGENCE BASED TECHNIQUES TO STUDY THE ROLE OF MICROBIOME IN LIVER DISEASES AND GETTING STRONGER GUT-AXIS

(51) International classification :A61P0001160000, G06K0009620000, G01N0033487000, H04W0004029000, G06N0003020000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)MJP ROHILKHAND UNIVERSITY Address of Applicant :MJP ROHILKHAND UNIVERSITY, BAREILLY, INDIA. Bareilly ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr Amit Kumar Verma Address of Applicant :Assistant Professor, Dept. of Pharmacy, MJP Rohilkhand University, Bareilly, India Bareilly ----- 2)Dr Amit Singh Address of Applicant :Associate Professor, Department of Law, MJP Rohilkhand University, Bareilly, India Bareilly ----- 3)Prof S K Pandey Address of Applicant :Professor, Department of Applied Chemistry, MJP Rohilkhand University, Bareilly, India Bareilly -- 4)Prof Sudhir Kumar Address of Applicant :Professor, Department of Applied Physics, MJP Rohilkhand University, Bareilly, India Bareilly ----- 5)Prof. S. S. Bedi Address of Applicant :Professor, Dept. of CSIT, MJP Rohilkhand University, Bareilly, India Bareilly -----

(57) Abstract :

Artificial Intelligence based techniques to study the role of microbiome in liver diseases and getting stronger gut-axis is the proposed invention. The proposed invention focuses on studying the liver diseases and getting stronger gut-axis. The invention focuses on analyzing the role of microbiome in liver diseases using algorithms of Artificial Intelligence.

No. of Pages : 13 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006538 A

(19) INDIA

(22) Date of filing of Application :31/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : MACHINE LEARNING BASED MODELS TO STUDY THE ROLE OF IMMUNE CELLS IN THE PATHOGENESIS AND PROGRESSION CARDIOVASCULAR DISEASES

(51) International classification	:G06N0020000000, A61P0009000000, A61B0005145000, H04W0004029000, G01N0033487000	(71)Name of Applicant : 1)MJP ROHILKHAND UNIVERSITY Address of Applicant :MJP ROHILKHAND UNIVERSITY, BAREILLY, INDIA. Bareilly -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number	:NA	1)Dr Amit Kumar Verma Address of Applicant :Assistant Professor, Dept. of Pharmacy, MJP Rohilkhand University, Bareilly, India Bareilly -----
Filing Date	:NA	-----
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Filing Date	:NA	-----
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(57) Abstract :

Machine Learning based models to study the role of immune cells in the pathogenesis and progression cardiovascular diseases is the proposed invention. The proposed invention focuses on studying the comparison between pathogenesis and progression cardiovascular diseases. The invention focuses on analyzing the role of immune cells in cardiovascular diseases using algorithms of Machine Learning.

No. of Pages : 13 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006539 A

(19) INDIA

(22) Date of filing of Application :31/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SUSTAINABLE POWER MANAGEMENT FOR SMALL SCALE INDUSTRIES: AN ANALYTICAL TECHNO-ECONOMIC APPROACH

(51) International classification :G06Q0010060000, G06Q0010100000, G06Q0010000000, B08B0005020000, A61P0043000000		(71)Name of Applicant : 1)Dr. Sourabh Kumar Jain Address of Applicant :Professor, Jayoti Vidyapeeth Women's University, Jaipur, Rajasthan Jaipur -----
(86) International Application No	:NA	2)Dr. Mini Amit Arrawatia
Filing Date	:NA	3)Neha Nema
(87) International Publication No	: NA	Name of Applicant : NA
(61) Patent of Addition to Application Number	:NA	Address of Applicant : NA
Filing Date	:NA	(72)Name of Inventor :
(62) Divisional to Application Number	:NA	1)Dr. Sourabh Kumar Jain
Filing Date	:NA	Address of Applicant :Professor, Jayoti Vidyapeeth Women's University, Jaipur, Rajasthan Jaipur -----
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(57) Abstract :

ABSTRACT OF THE DISCLOSURE This invention belongs to the field of engineering. The present invention relates to a novel method and system for sustainable power management in small-scale industries, employing an analytical techno-economic approach. The system integrates advanced analytics and economic modelling to optimize energy consumption, reduce environmental impact, and enhance the overall efficiency of power utilization in small-scale industrial settings.

No. of Pages : 6 No. of Claims : 3

(54) Title of the invention : GRAPH-BASED SYSTEM FOR COGNITIVE OFFENSE ANALYSIS AND DETECTION AND METHOD THEREOF

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	(71)Name of Applicant : 1)Chitkara University Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ----- 2)Bluest Mettle Solutions Private Limited Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)MISHRA, Rahul Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune ----- 2)SINGH, Dhiraj Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune ----- 3)BANSAL, Aayush Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

(57) Abstract :

The present disclosure introduces a system (102) and method (300) for the detection of cognitive offenses in digital communication platforms, aiming to create a safer online environment by actively mitigating the spread of offensive material and encouraging inclusive and respectful digital interactions. The system (102) includes a processor (202) that dynamically constructs graphs based on textual content to represent interactions, relationships, and sentiment dynamics. Additionally, the system (102) incorporates linguistic features and contextual attributes into the graph, training a graph-based deep learning model for real-time analysis of newly generated content. The graph evolves dynamically to adapt to changing linguistic trends and sentiment dynamics, enhancing its accuracy in identifying cognitive offenses.

No. of Pages : 26 No. of Claims : 10

(54) Title of the invention : CYBERSECURITY TESTING SYSTEM FOR AUTHORIZED SERVICE ENVIRONMENTS AND METHOD THEREOF

(51) International classification :G06F0021570000, G06N0020000000, G06F0021620000, G06Q0010060000, G06Q0030000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Chitkara University Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ----- 2)Bluest Mettle Solutions Private Limited Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)MISHRA, Rahul Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune ----- 2)SINGH, Dhiraj Address of Applicant :ODC-4, Panchshil Tech Park, inside Courtyard by Marriott premises, Hinjewadi Phase - 1, Pune - 411057, Maharashtra, India. Pune ----- 3)KUMAR, Abhay Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----

(57) Abstract :
The present disclosure introduces a cybersecurity testing system (102) and method (300) for authorized service environments to enhance the security assessment of critical services within a network. Utilizing advanced machine learning algorithms, the system dynamically customized cybersecurity tests based on the unique characteristics and permissions of authorized services, mitigating disruptions to essential operations. Additionally, the system (102) incorporates a fine-grained permission analysis, aligning tests with individual access rights, and continuous monitoring to adapt to evolving service configurations. Further, the system (102) integrates threat intelligence feeds, allowing proactive identification of emerging vulnerabilities and attack vectors. With a risk-based prioritization approach, it allocates testing resources based on service criticality. Further, the system (102) includes self-learning capabilities to enable continuous improvement, and it seamlessly integrates with security governance frameworks, ensuring compliance.

No. of Pages : 27 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006312 A

(19) INDIA

(22) Date of filing of Application :31/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN ADVANCED HIGH-STRENGTH STEEL (AHSS) FOR AUTOMOTIVE APPLICATIONS AND MANUFACTURING METHOD THEREOF

(51) International classification :C21D0008020000, C22C0038020000, C22C0038040000, C23C0002060000, C23C0002020000		(71)Name of Applicant : 1)INDIAN INSTITUTE OF TECHNOLOGY ROPAR Address of Applicant :INDIAN INSTITUTE OF TECHNOLOGY ROPAR, Birla Farms, Rupnagar - 140001, Punjab, India Rupnagar ----- Name of Applicant : NA Address of Applicant : NA
(86) International Application No	:NA	(72)Name of Inventor :
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(61) Patent of Addition to Application Number	:NA	3)PRASAD, Ravi Mohan Address of Applicant :INDIAN INSTITUTE OF TECHNOLOGY ROPAR, Birla Farms, Rupnagar - 140001, Punjab, India Rupnagar -----
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The present invention discloses an advanced high strength steel (AHSS) for automotive applications and manufacturing method thereof. The alloy composition (in wt.%) Mn: 6 to 9, Si: 1.2 to 1.8, Ni: 0.15-0.20, Cr: 0.015 to 0.025, Al: 0.003 to 0.0025, S: = 0.008, P: = 0.04, C: 0.10 to 0.14, Ti: 0.004-0.01 (in wt.%) and the balance amount is Iron (Fe). The method for manufacturing the AHSS is melting the alloy constituents in arc furnace and casting into ingots. The as cast ingots are homogenized at 1100 ±50 0C for 6 hours and cooled to room temperature in the furnace itself. Further, the ingots undergo thermo-mechanical treatment in open atmosphere in the range of 880-920 0C through multi-pass hot rolling. The mechanical properties of the AHSS are: hardness in the range of 450 to 650 VHN, the tensile strength in the range of 1250 to 1550 MPa with 11-16 % elongation.

No. of Pages : 23 No. of Claims : 9

(54) Title of the invention : WALL-GROOVING TOOL

(51) International classification	:A63B0023120000, B25D0017020000, E04F0021180000, A63B0021075000, E04H0017260000	(71)Name of Applicant : 1)Chitkara University Address of Applicant :Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala -----
(86) International Application No	:NA	2)Chitkara Innovation Incubator Foundation
Filing Date	:NA	Name of Applicant : NA
(87) International Publication No	: NA	Address of Applicant : NA
(61) Patent of Addition to Application Number	:NA	(72)Name of Inventor :
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Filing Date	:NA	--

(57) Abstract :
A wall-grooving tool (100) for preparing a wall for tile installation. the wall-grooving tool (100) comprises an elongated bar (102) extended along a longitudinal axis, the elongated bar (102) having a first end (104) and a second end (108). The first end (104) of the elongated bar (102) comprises a striking head (106) and the second end (108) of the elongated bar (102) comprises a cutting edge (110). Further, the wall-grooving tool (100) comprises a holding portion (112) disposed between the first end (104) and the second end (108) of the elongated bar (102). The striking head (106) is configured with a wide flat striking surface for applying the required force through a hammer and the cutting edge (110) at the second end (108) of the elongated bar (102) is configured with at least two blades (110-1) to a V-shaped profile.

No. of Pages : 11 No. of Claims : 6

(54) Title of the invention : COMPOSITION AND METHOD FOR MITIGATING SOIL LIQUEFACTION OF PILE CONSTRUCTION

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	(71)Name of Applicant : 1)Sharda University Address of Applicant :Plot No. 32-34, Knowledge Park-III, Greater Noida - 201310, Uttar Pradesh, India. Greater Noida ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)GHANI, Sufyan Address of Applicant :Assistant Professor, Department of Civil Engineering, Sharda University, Plot No. 32, 34, Knowledge Park III, Greater Noida - 201310, Uttar Pradesh, India. Greater Noida -- 2)THAPA, Ishwor Address of Applicant :Research Scholar, Department of Civil Engineering, Sharda University, Plot No. 32, 34, Knowledge Park III, Greater Noida - 201310, Uttar Pradesh, India. Greater Noida -- 3)YANA, Tech Address of Applicant :P.G Student, Department of Civil Engineering, Sharda University, Plot No. 32, 34, Knowledge Park III, Greater Noida - 201310, Uttar Pradesh, India. Greater Noida -- 4)KUMAR, Nishant Address of Applicant :Assistant Professor, Department of Civil Engineering, Sharda University, Plot No. 32, 34, Knowledge Park III, Greater Noida - 201310, Uttar Pradesh, India. Greater Noida -- 5)SAHARAN, Sunil Address of Applicant :Assistant Professor, Department of Civil Engineering, Sharda University, Plot No. 32, 34, Knowledge Park III, Greater Noida - 201310, Uttar Pradesh, India. Greater Noida -- 6)GUPTA, Megha Address of Applicant :Assistant Professor, Department of Civil Engineering, Sharda University, Plot No. 32, 34, Knowledge Park III, Greater Noida - 201310, Uttar Pradesh, India. Greater Noida --

(57) Abstract :
The present invention provides a method that combines advanced geotechnical engineering with ecological principles to address liquefaction vulnerabilities while simultaneously promoting environmental sustainability. The method employs living organisms, such as fibrous plants and microorganisms, to enhance soil stability and reduce liquefaction susceptibility. Said organisms can naturally reinforce soil through root systems, reduce pore water pressure, and enhance the overall resilience of the ground.

No. of Pages : 20 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006841 A

(19) INDIA

(22) Date of filing of Application :01/02/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : ISOLATION AND CHEMICAL CHARACTERIZATION OF VOLATILE CONSTITUENTS OF CITRUS RETICULATA BLANCO LEAVES

(51) International classification :G01N0030020000, G01N0030860000, G01N0030720000, A61K0036752000, G01N0030680000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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5)Sapna Kapoor

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(57) Abstract :

The present invention provides a process for the extraction of volatile oils from fresh leaves of Citrus reticulata, comprising of hydro distilling leaves of Citrus reticulata; obtaining white oil; drying the transparent white oil over anhydrous Sodium sulfate and storing at the temperature of 4°C in the dark. The method for estimation of volatile oils extracted from fresh leaves of Citrus reticulata, comprising of analyzing extracted sample by running chromatogram on a gas chromatograph capillary column size of 30mx0.25m, film thickness 0.25µm; optimizing and running column with injector volume 0.1µl, carrier gas Nitrogen, flow rate 1.5ml/min; split mode, temperature ranges from 8°C-250°C at 4°C/min; injector temperature 250°C and detector temperature 300°C; detecting samples using Flame ionization detection and recording chromatogram from the chromatograph for estimation of volatile oils; analyzing using GC-MS, column fused capillary 0.25mmx50m, film thickness 0.25µ, initial temperature 100°C for 6 min and then heated at a rate of 10°C per min to 250°C, carrier gas He, flow rate 2ml/min and detecting using FID detector; identifying components by comparing their retention indices of GC chromatograph with GC-MS; comparing fragmentation patterns of mass spectra with spectrometer data base. The oil shows the presence and identification of 17 components out of which 4 are monoterpenoids (74.2%):-β-Pinene (52%), Cis-sabinene hydrate (15%), -Terpinene (1.3%) and Piperitenone (5.9%), 12 are sesquiterpenoids(23.5%):-a-Humulene, β-Selinene, Trans-Bisabolene, d-Cadinene, Elemol, Globulol and one non terpenoid (9,12,15-Octadecatrienoic acid 2.3%).

No. of Pages : 18 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :01/02/2024

(21) Application No.202411006639 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A MODEL DECODING ONLINE SHOPPING PREFERENCES

(51) International classification :G06Q0030020000, G06Q0030060000, G06Q0050000000, G06Q0030000000, A61B0007020000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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4)Anusha S. Nadiger

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9)Harvinder Singh

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(57) Abstract :

Consumer tastes are changing in the digital age due to the convenience of rapid gratification, avoiding social connections, and easy access to a large selection of products. The dynamic landscape of online shopping behaviour is further influenced by the impression of usage riskiness and the need for privacy. As online retailers navigate this complex web, understanding these psychological factors becomes crucial in designing platforms that cater to evolving consumer needs, ensuring a seamless and satisfying online shopping experience. This will help online marketers and companies who are planning to jump in online platform to devise suitable product/service offerings and to plan their strategies accordingly. Consumer tastes are changing in the digital age due to the convenience of rapid gratification, avoiding social connections, and easy access to a large selection of products. The dynamic landscape of online shopping behaviour is further influenced by the impression of usage riskiness and the need for privacy. Understanding these psychological aspects is essential for online retailers navigating this intricate web as they create platforms that meet changing customer demands and guarantee a flawless and fulfilling online buying experience. This will assist online marketers and businesses wishing to enter the online market in developing appropriate product/service offerings and organising their strategy appropriately.

No. of Pages : 10 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :02/02/2024

(21) Application No.202411007040 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : TUMOR DIAGNOSIS SYSTEM AND TECHNIQUE BASED ON QUANTITATIVE ANALYSIS OF TEXTURE-BASED INFORMATION IN RADIOLOGICAL IMAGES

(51) International classification :G06T0007000000, A61B0005055000, A61B0005000000, G06T0007110000, A61B0006000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Vikas Tiwari Address of Applicant :Professor, Medical laboratory Sciences, UIAHS Chandigarh University NH-05, Ludhiana-Chandigarh NH, Punjab ----- 2)Dr. K. Nagaraj 3)Dr. Shyam Sundar Behura 4)P. Sathish 5)Pushpa N 6)Deepak Parashar Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Vikas Tiwari Address of Applicant :Professor, Medical laboratory Sciences, UIAHS Chandigarh University NH-05, Ludhiana-Chandigarh NH, Punjab ----- 2)Dr. K. Nagaraj Address of Applicant :Assistant Professor, School of Pharmacy, National Forensic Sciences University, Police Bhavan Rd, Sector 9, Gandhinagar, Gujarat ----- 3)Dr. Shyam Sundar Behura Address of Applicant :Professor, Kalinga Institute of Industrial Technology (KIIT), Deemed to be University, Patia, Bhubaneswar ----- 4)P. Sathish Address of Applicant :Associate Professor, Department of Master of Computer Applications, NITTE Meenakshi Institute of Technology, Bangalore ----- 5)Pushpa N Address of Applicant :Assistant professor, Department of Artificial Intelligence and Data Science, R P Sarathy Institute of Technology, Salem ----- 6)Deepak Parashar Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Symbiosis Institute of Technology, Symbiosis International University, Pune -----

(57) Abstract :

A technique for analyzing medical images called radiomics measures how different a lesion's shape and texture are from one another. The fundamental methods of radiomics include texture analysis, which makes advantage of the lesion's intensity distributions and patterns. The term texture analysis refers to a range of image analysis methods, some of which are invisible to the human eye, that measure variations in surface intensity or patterns. Typically, hundreds of features of statistical characteristics are used in MR-based texture analysis. The process of extracting quantifiable tumor characteristics from medical images, such as computed tomography or magnetic resonance imaging (MRI), in order to monitor the progression of a tumor or assess the response of a tumor to treatment, is known as quantitative image analysis for evaluation of tumor response.

No. of Pages : 13 No. of Claims : 1

(54) Title of the invention : AN AUTOMATED WHISTLE TRACKING AND COOKING READINESS SYSTEM FOR PRESSURE COOKERS

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	:A47J0027080000, A47J0027090000, A47J0036020000, G10K0005000000, A47J0036040000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)IIHMR UNIVERSITY Address of Applicant :1, PRABHU DAYAL MARG, NEAR SANGANER AIRPORT, MARUTI NAGAR, JAIPUR, RAJASTHAN 302029 ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)DR. AARTI SHARMA Address of Applicant :PROFESSOR OF PRACTICE, IIHMR UNIVERSITY, JAIPUR Jaipur ----- 2)DR. P.R. SODANI Address of Applicant :PROFESSOR AND PRESIDENT, IIHMR UNIVERSITY, 1, PRABHU DAYAL MARG, NEAR SANGANER AIRPORT, MARUTI NAGAR, JAIPUR, RAJASTHAN 302029 Jaipur ----- 3)KIRTI AGARWAL Address of Applicant :RESEARCH SCHOLAR, IIHMR UNIVERSITY, JAIPUR Jaipur ----- 4)DR. MRIDUL DHARWAL Address of Applicant :PROFESSOR, SHARDA UNIVERSITY, GREATER NOIDA GREATER NOIDA -----

(57) Abstract :
Disclosed herein is an automated whistle tracking and cooking readiness system (100) for pressure cookers comprising of a cooker module (102) with an advanced lid incorporating tracking technology. The system further comprises a display module (104) presenting real-time information on a digital LED display, and a processing module (106) serving as central hub for the system (100). The system (100) further comprises of a pressure sensor (108) for measuring cooking pressure, a temperature sensor (112) for monitoring internal temperature, a whistle counting mechanism (114) to automatically count whistles, a battery unit (116) for consistent power supply, and a safety and notification module (118) for user awareness and alarms indicating events such as cooking completion or system (100) malfunctions.

No. of Pages : 27 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006333 A

(19) INDIA

(22) Date of filing of Application :31/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SORTIE FRAMEWORK TO FOSTER FASTER DIGITALIZATION IN THE POWER SECTOR

(51) International classification :G06Q0010060000, G03F0007260000, G01B0009020550, A61L0002000000, H04L0009000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

This invention presents a systematic approach to address challenges hindering digitalization in the power sector. Through a comprehensive system, obstacles are identified via literature review, surveys, and stakeholder engagement. These challenges are then categorized into six key areas: Strategy, Operational Excellence, Regulatory, Technical, Innovation, and Economic considerations. Prioritizing challenges within each area facilitates agile digitalization, ensuring alignment with business objectives. The system includes the development of a structured methodology, known as the SORTIE framework, to navigate these complexities. This framework offers actionable strategies for organizations to overcome obstacles and achieve successful digital transformation. By implementing clear goal-setting, stakeholder engagement, and robust project management practices, the system ensures effective implementation and value realization of digitalization initiatives aligned with industry needs.

No. of Pages : 26 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006416 A

(19) INDIA

(22) Date of filing of Application :31/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A NOVEL METHOD FOR REAL-TIME AUTONOMOUS VEHICLE TRAFFIC MANAGEMENT

(51) International classification :G05D0001020000, G06F0003010000, G05D0001000000, F21Y0115100000, B60W0010200000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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3)Dr. Shaharyar Asaf Khan

4)Dr. Jyoti Verma

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(57) Abstract :

The present invention relates to a novel method (100) for real-time autonomous vehicle traffic management. The novel method (100) for real-time autonomous vehicle traffic management comprises the following steps: utilizing a low-bandwidth, high-reliability network for efficient data transmission, operating within a bandwidth range; implementing energy-efficient AI/ML algorithms for decision-making; applying data cleaning and bias mitigation techniques to ensure the accuracy and fairness of the AI/ML algorithms; incorporating a fault detection and recovery system that continuously monitors the vehicle's systems and promptly addresses malfunctions; adapting to diverse environmental conditions to ensure continuous operation in case of power failure.

No. of Pages : 11 No. of Claims : 5

(54) Title of the invention : AN AI BASED DUVAL TRIANGLE FAULT DIAGNOSTIC METHOD FOR OIL-IMMERSED POWER TRANSFORMERS AND ITS APPLICATION THEREOF

(51) International classification :G06F0011220000, F02D0041220000, G01R0031120000, C07C0002840000, G01N0033680000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)NATIONAL INSTITUTE OF TECHNOLOGY, SRINAGAR Address of Applicant :DEPARTMENT OF ELECTRICAL ENGINEERING NATIONAL INSTITUTE OF TECHNOLOGY, SRINAGAR, Srinagar ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Teruvai Manoj Address of Applicant :Department of electrical engineering National institute of technology, Srinagar, 190006 Srinagar ----- ----- 2)Dr. Chilaka Ranga Address of Applicant :Department of electrical engineering National institute of technology, Srinagar, 190006 Srinagar ----- ----- 3)Dr. Smitarani Pati Address of Applicant :Dept. of Instrumentation and Control Engineering, Dr. B R Ambedkar National Institute of Technology Jalandhar -----

(57) Abstract :
AN AI BASED DUVAL TRIANGLE FAULT DIAGNOSTIC METHOD FOR OIL-IMMERSED POWER TRANSFORMERS AND ITS APPLICATION THEREOF. An AI based Duval triangle fault diagnostic method for oil-immersed power transformers to simply conventional Duval triangle method by reducing calculation without affecting accuracy of the conventional method and finding sub fault along with main fault in a single model instead of using three separate Duval triangles. In addition to that the present invention discloses a fault diagnosis tool for power transformers, comprising a fault gas interpretation method that integrates three Duval triangles with triangular membership functions, wherein said method is designed for diagnosing incipient faults in power transformers, wherein nine gas percentages in conventional three Duval triangles are reduced to six for enhanced computational efficiency, wherein the fault gas interpretation method utilizes five gases, namely hydrogen, methane, ethylene, ethane, and acetylene, for diagnosing incipient faults in power transformers.

No. of Pages : 26 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :02/02/2024

(21) Application No.202411007082 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SMART DECISION-MAKING SYSTEM FOR TRADE-OFF ANALYSIS AND OPPORTUNITY COST ASSESSMENT

(51) International classification :G06N0020000000, G06Q0010060000, G16H0050200000, G06Q0050060000, G06Q0040080000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT The present invention relates to a smart decision-making system (100) for trade-off analysis and opportunity cost assessment. The smart decision-making system (100) for trade-off analysis and opportunity cost assessment comprises a data integration module, a machine learning algorithms, an optimization of decision-making, a user-friendly interface and a real-time update features. The data integration module is configured to collate information from diverse sources, including historical performance metrics, market trends, and external factors. The machine learning algorithms are configured to analyze the integrated data, identify patterns, and predict outcomes related to trade-offs and opportunity costs associated with decision-making. The optimization of decision-making is configured to optimize decision-making by assessing the potential impact of various options and providing insights into the associated trade-offs and opportunity costs. The user-friendly interface is configured to facilitating seamless interaction with the system (100) , allowing decision-makers to input preferences, view analyses, and navigate through the decision-making process.

No. of Pages : 12 No. of Claims : 5

(54) Title of the invention : INTELLIGENT PREDICTIVE SYSTEM AND USER INTERFACE FOR HIGHPERFORMANCE CONCRETE COMPRESSIVE STRENGTH ASSESSMENT

(51) International classification :G06N0020000000, G06Q0010060000, G06F0008380000, G06N0005040000, G06N0003080000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Akash Chadha Address of Applicant :9/219 DDA Flats Madangir ----- ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Rupesh Kumar Tipu Address of Applicant :Department of Civil Engineering, School of Engineering & Technology, K.R. Mangalam University, Gurugram, Haryana 122103, India Sohna ----- 2)Kartik S. Pandya Address of Applicant :Electrical Engineering Department, Faculty of Engineering and Technology, Parul Institute of Engineering and Technology (PIET), Parul University, Vadodara 391760, Gujarat, India Vadodara ----- 3)Akash Chadha Address of Applicant :Web Developer, K.R. Mangalam University, Gurugram, Haryana 122103, India Sohna ----- -----

(57) Abstract :
This innovation presents a groundbreaking approach to the assessment of high-performance concrete compressive strength through the amalgamation of advanced machine learning and user-friendly interface design. In response to the growing demand for resilient and sustainable construction materials, we introduce a sophisticated machine learning model capable of precisely predicting the compressive strength of high-performance concrete. This model employs intricate algorithms to analyse an extensive array of parameters, ensuring its accuracy and reliability in providing real-time predictions. Integral to the invention is a graphical user interface (GUI) meticulously crafted for accessibility and ease of use. The GUI serves as a bridge between the complex predictive model and end-users, including engineers, architects, and construction professionals. Its intuitive design facilitates seamless interaction, allowing users to input relevant data, receive instantaneous predictions, and interpret results in a comprehensible manner. This user centric approach is aimed at democratizing access to advanced technology within the construction industry, empowering professionals to make informed decisions on material selection and structural planning.

No. of Pages : 14 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411007370 A

(19) INDIA

(22) Date of filing of Application :02/02/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : 'BE-R BALL' WATER FILTER

(51) International classification :C02F0001000000, C02F0001280000, B22C0005040000, G01N0015100000, B01D0046000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Our water filter is a cylinder-shaped product, which uses Two filters of 100 and 120 micron. It is aimed to stop the particles which are bigger than 100 micron like- Threads/ hair, mud, sand particles etc. This will help in increasing the life of RO, stop choking of pipes, less sand deposits at the base of tank.

No. of Pages : 9 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006868 A

(19) INDIA

(22) Date of filing of Application :01/02/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYNTHESIS OF PECTIN BIOPOLYMER FOR ELECTROCHEMICAL DEVICE APPLICATION

(51) International classification	:H01M0010052000, H01M0010056500, H01G0009200000, H01M0004620000, H01M0050411000	(71)Name of Applicant : 1)Dr. Shri Prakash Pandey Address of Applicant :Professor, Department of Applied Sciences (Physics), Delhi Technical University, Greater Noida, Gautam Bhuddha Nagar, Pin:201310, Uttar Pradesh, India. ----- ----- 2)Mr. Prabhakar Sharma 3)Mr. Kailash Kumar Name of Applicant : NA Address of Applicant : NA
(86) International Application No	:NA	(72)Name of Inventor :
Filing Date	:NA	1)Dr. Shri Prakash Pandey Address of Applicant :Professor, Department of Applied Sciences (Physics), Delhi Technical University, Greater Noida, Gautam Bhuddha Nagar, Pin:201310, Uttar Pradesh, India. ----- -----
(87) International Publication No	: NA	2)Mr. Prabhakar Sharma Address of Applicant :Research Scholar, Department of Physics, Faculty of Engineering, Teerthanker Mahaveer University, Moradabad, Pin: 244001, Uttar Pradesh, India. ----- -----
(61) Patent of Addition to Application Number	:NA	3)Mr. Kailash Kumar Address of Applicant :Research Scholar, Department of Physics, Faculty of Engineering, Teerthanker Mahaveer University, Moradabad, Pin: 244001, Uttar Pradesh, India. ----- -----
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

SYNTHESIS OF PECTIN BIOPOLYMER FOR ELECTROCHEMICAL DEVICE APPLICATION ABSTRACT Bio-polymers have become the great interest of material scientists in recent few years due to their remarkable applications in energy storage devices. The solid state electrochemical devices in which ionically conducting polymer electrolyte plays a vital role as a matrix for the ion transport between working and counter electrodes not only in dye-sensitized solar cells (DSSC) but also in the devices like, rechargeable batteries and supercapacitors. In the electrochemical process the ions in the electrolyte absorbs and desorb on the porous electrode and the system allows a rapid charging and discharging of the polymer. The solid polymer electrolytes are formed by dissolving the salts in the host polymer which forms solvent free ion conducting phase which gives the advantage from the leakage. Biopolymers are polymers which are biodegradable, made from either renewable or synthetic materials. For the electrochemical device applications, the biopolymers have to be conductive and large potential window, which would be possible with the addition of ionic salt. The conductivity of the bio-polymers should also be in the matching level of electrode materials to complete the oxidation and reduction processes. The current research has been focused on synthesis of natural biopolymer 'pectin' and biopolymer-based electrolyte films for their energy storage applications. The synthesized pectin biopolymer was used for electrolyte films with different salt concentration. The results for the biopolymer electrolyte films were discussed in terms of their electrical, optical and structural properties. Keywords: Biopolymer; Pectin; Electrochemical Device, Biopolymer electrolyte, Solution Cast Technique

No. of Pages : 17 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :01/02/2024

(21) Application No.202411006874 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SURFACTANT BASED PROCESS FOR WASTEWATER TREATMENT SYSTEMS.

(51) International classification	:C02F0001280000, B01D0053040000, C11D0001220000, B01J0020280000, B01D0053047000	(71)Name of Applicant : 1)Dr namrata Gupta Address of Applicant :124 vivek vihar near vayu vihar petrol pump bodla Agra Agra ----- 2)Preeti mishra 3)Piyush gupta Name of Applicant : NA Address of Applicant : NA
(86) International Application No	:NA	(72)Name of Inventor :
Filing Date	:NA	1)Dr namrata Gupta Address of Applicant :124 vivek vihar near vayu vihar petrol pump bodla Agra Agra -----
(87) International Publication No	: NA	2)Preeti mishra Address of Applicant :Faculty of Pharmacy Raja Balwant Singh Engineering Technical Campus, Bichpuri, Agra-283105, U.P., India srmspreeti2006@gmail.com 7037587945 Agra -----
(61) Patent of Addition to Application Number	:NA	-----
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(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

A three step wastewater treatment process, [1] includes surfactants treatment of wastewater for micelles as the first step, followed by low cost adsorbents column filtration and finally biological treatment of surfactants. The surfactant composition is a binary system of Sodium dodecyl sulfate (SDS), Sodium dodecyl benzene sulfonate(SDBS), Cetyltrimethylammonium bromide (CTAB), Dimethyl dioctadecyl ammonium chloride (DTDMAC) and Criton X100 (CTX) in the ratio of 1:1. The low cost adsorbent bed, have different adsorbents in sequence from the top china clay, fly ash, pseudo activated carbon, sand gravel and fine peat with a working volume of 2.44 liters top inlet and bottom outlet. The removal of chemical species was 1.4-3.5 times enhanced due to the presence of micelles. The enhancement in removal by using binary surfactant system was always 0.7-2.5% greater than using a single surfactant.

No. of Pages : 20 No. of Claims : 11

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006883 A

(19) INDIA

(22) Date of filing of Application :01/02/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : INTEGRATION OF PHASE CHANGE MATERIALS IN SOLAR COLLECTORS FOR THERMAL ENERGY STORAGE

(51) International classification	:F28D0020000000, F28D0020020000, C09K0005060000, F24S0070225000, F24S0010400000	(71)Name of Applicant : 1)Manav Rachna International Institute of Research and Studies Address of Applicant :Manav Rachna International Institute of Research and Studies, Faridabad, India. -----
(86) International Application No	:NA	2)Dr. Ashwini Kumar
Filing Date	:NA	3)Satyendra Kumar Rajak
(87) International Publication No	: NA	4)Pramendra Kumar
(61) Patent of Addition to Application Number	:NA	5)Dr. Ravi Kumar
Filing Date	:NA	Name of Applicant : NA
(62) Divisional to Application Number	:NA	Address of Applicant : NA
Filing Date	:NA	(72)Name of Inventor :
		1)Dr. Ashwini Kumar
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		Address of Applicant :Assistant Professor, Department of Mechanical Engineering, Faculty of Engineering and Technology, Ramchandra Chandravansi University, Bishrampur, Palamu, Jharkhand, India. Pin: 822132. -----
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(57) Abstract :

The invention pertains to the field of solar energy systems and addresses the intermittent nature of sunlight by introducing an innovative integration of phase change materials (PCMs) within solar collectors for thermal energy storage. The solar collector system features strategically positioned PCMs that undergo reversible phase transitions, efficiently capturing and storing excess thermal energy during periods of high solar irradiance. Controlled release mechanisms ensure a consistent and reliable energy supply during low irradiance or increased demand. Various embodiments, including multi-layered PCM integration, adjustable PCM concentration, and hybrid thermal storage configurations, enhance the adaptability and scalability of the system. The invention represents a significant advancement in optimizing solar thermal energy capture, offering improved efficiency, reliability, and versatility for sustainable energy solutions.

No. of Pages : 16 No. of Claims : 6

(54) Title of the invention : SYSTEMATIC REVIEWS ON DEVELOPMENT OF NOVEL AND CASE-SPECIFIC POPULATION PHARMACOKINETIC MODELS

(51) International classification (86) International Application No (87) International Publication No (61) Patent of Addition to Application Number (62) Divisional to Application Number	:A61P0017060000, G01N0015140000, G01N0021850000, C12Q0001180000, A01H0001040000 :NA :NA : NA :NA :NA	(71)Name of Applicant : 1)MJP ROHILKHAND UNIVERSITY Address of Applicant :MJP ROHILKHAND UNIVERSITY, BAREILLY, INDIA. Bareilly ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr Amit Kumar Verma Address of Applicant :Assistant Professor, Dept. of Pharmacy, MJP Rohilkhand University, Bareilly, India Bareilly ----- 2)Dr Amit Singh Address of Applicant :Associate Professor, Department of Law, MJP Rohilkhand University, Bareilly, India Bareilly ----- 3)Dr Saurabh Mishra Address of Applicant :Assistant Professor, Department of Pharmacy, MJP Rohilkhand University, Bareilly, India Bareilly --- 4)Prof S K Pandey Address of Applicant :Professor, Department of Applied Chemistry, MJP Rohilkhand University, Bareilly, India Bareilly -- 5)Prof Sudhir Kumar Address of Applicant :Professor, Department of Applied Physics, MJP Rohilkhand University, Bareilly, India Bareilly ----- 6)Dr Brijesh Kumar Address of Applicant :Dept. of CSIT, MJP Rohilkhand University, Bareilly, India. Bareilly -----

(57) Abstract :
Systematic reviews on development of novel and case-specific population pharmacokinetic models is the proposed invention. The proposed invention focuses on studying the development of novel and case-specific population models. The invention focuses on analyzing the parameters of pharmacokinetic models using algorithms of systematic reviews.

No. of Pages : 12 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006567 A

(19) INDIA

(22) Date of filing of Application :31/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A METHOD FOR SYNTHESIZING ALUMINUM (AL) AND ALUMINA (AL₂O₃) BASED GRADED MATERIAL WITH GRAVITY CASTING

(51) International classification :B22C0003000000, B22D0035040000, F27B0014060000, F27B0014000000, B22D0021040000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Puneet Singh Address of Applicant :Reaearch Scholar, Department of Mechanical Engineering, VMSB Uttarakhand Technical University, Dehradun-248007, India Dehradun ----- 2)Dr. Satyendra Singh 3)Dr. Krishna Kant Singh Mer Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Puneet Singh Address of Applicant :Reaearch Scholar, Department of Mechanical Engineering, VMSB Uttarakhand Technical University, Dehradun-248007, India Dehradun ----- 2)Dr. Satyendra Singh Address of Applicant :Professor, Department of Mechanical Engineering, B.T. Kumaon Institute of Technology, Dwarahat-263653 (Almora), Uttarakhand, India Almora ----- 3)Dr. Krishna Kant Singh Mer Address of Applicant :Professor, Department of Mechanical Engineering, G.B. Pant Institute of Engineering & Technology, Ghurdauri-246194 (Pauri-Garhwal), Uttarakhand, India Pauri-Garhwal -----

(57) Abstract :

The present invention generally relates to amethod for synthesizing aluminum (Al) and alumina (Al₂O₃) based graded material with gravity casting. The method comprises pre-heating a crucible to 150-200°C to reduce thermal damage to a casting; coating a cavity surface of the crucible with a refractory material or a mold wash, which prevents the casting from sticking to the crucible; melting 92.5-99.8 wt% of Aluminum in a preheated crucible for 103 minutes; adding 2.5-7.5 wt% of Alumina Nano-particles slowly in a melted aluminum and stirring for 8-10 minutes to form a mixture; and solidifying the mixture for 7-8 hours to form a functionally graded material (FGM).

No. of Pages : 28 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :31/01/2024

(21) Application No.202411006574 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : FORTIFIED SHIELD: A COMPREHENSIVE SAFETY SYSTEM AGAINST ASSAULTS AND ROBBERIES

(51) International classification :G06F0021570000, H04W0004700000, H04L0067120000, G16Y0030100000, G06Q0020400000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Dr. Hitesh Kumar Sharma Address of Applicant :School of Computer Scinece, University of Petroleum and Energy Studies ----- 2)Dhruv Sharma 3)Manjinder Kaur 4)Prashant Ahlawat 5)Dr. Sanjay Singla 6)Dr. Hitesh Kumar Sharma Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dhruv Sharma Address of Applicant :Computer Science Engineering, University Institute of Engineering, Chandigarh University, Gharuan, Mohali, Punjab Mohali ----- 2)Manjinder Kaur Address of Applicant :Computer Science Engineering, University Institute of Engineering, Chandigarh University, Gharuan, Mohali, Punjab Mohali ----- 3)Prashant Ahlawat Address of Applicant :Computer Science Engineering, University Institute of Engineering, Chandigarh University, Gharuan, Mohali, Punjab Mohali ----- 4)Dr. Sanjay Singla Address of Applicant :Computer Science Engineering, University Institute of Engineering, Chandigarh University, Gharuan, Mohali, Punjab Mohali ----- 5)Dr. Hitesh Kumar Sharma Address of Applicant :University of Petroleum & Energy Studies, Bidholi Campus, Dehradun Dehradun ----- 6)Dr. Hitesh Kumar Sharma Address of Applicant :University of Petroleum & Energy Studies, Bidholi Campus, Dehradun Dehradun -----

(57) Abstract :

In recent years, the rapid expansion of Internet of Things (IoT) technology into diverse facets of our lives, including education, households, vehicles, and healthcare, is undeniable. However, this widespread adoption has brought forth a slew of complex challenges. These encompass issues such as device heterogeneity, scalability, quality of service, and, most critically, security requirements. Regrettably, security often takes a back seat in IoT due to cost, size, and power constraints, resulting in user apprehension and reluctance to embrace IoT devices. Consequently, IoT systems become vulnerable to security breaches, leading to significant financial losses and reputational damage. The proposed system underscores the urgency of evaluating current IoT security risks and addressing impending challenges. IoT is rapidly transforming essential sectors like transportation, industry, payments, and healthcare, adding intelligence and connectivity. However, these advancements are hampered by looming security vulnerabilities. This work emphasizes the growing significance of IoT across various sectors and the need to prioritize and fortify IoT security. It highlights existing challenges, including heterogeneity, scalability, and power constraints, and their repercussions on user trust and IoT's susceptibility to security threats. By acknowledging these challenges and adopting a proactive security approach, we can unleash the full potential of IoT while ensuring a secure and reliable IoT ecosystem.

No. of Pages : 16 No. of Claims : 3

(54) Title of the invention : STABILITY ENHANCEMENT FOR QUAD BIKES: INVESTIGATING THE EFFECTS OF ROLLOVER PROTECTION SYSTEMS AND TRAILERS ON PERFORMANCE AND SAFETY

(51) International classification	:B62J27/00, B62K5/01	(71)Name of Applicant : 1)JAGENDRA SINGH Address of Applicant :FF2, Sheetal Apartment, Chiranjeev Vihar ----- 2)Sumanta Karmakar 3)Anish Deb 4)Khushi Banerjee 5)Dr. Ashmi Chakraborty 6)Gurjeet Singh 7)Dr. Debashis Sarkar, 8)Sambit S. Mondal 9)Avishek Banerjee Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Sumanta Karmakar Address of Applicant :Assistant Professor, ECE Dept, Asansol Engineering College, Asansol West Bengal- 713305 Asansol ----- 2)Anish Deb Address of Applicant :Assistant Professor, ME Dept, Asansol Engineering College, Asansol West Bengal- 713305 Asansol ----- 3)Khushi Banerjee Address of Applicant :Assistant Professor, ECE Dept, Asansol Engineering College, Asansol West Bengal- 713305 Asansol ----- 4)Dr. Ashmi Chakraborty Address of Applicant :Assistant Professor, ECE Dept, Asansol Engineering College, Asansol West Bengal- 713305 Asansol ----- 5)Gurjeet Singh Address of Applicant :Assistant Professor, ECE Dept, Asansol Engineering College, Asansol West Bengal- 713305 Asansol ----- 6)Dr. Debashis Sarkar, Address of Applicant :Associate Professor, ME Dept, Asansol Engineering College, Asansol West Bengal- 713305 Asansol ----- 7)Sambit S. Mondal Address of Applicant :Assistant Professor, Department of CSE, Asansol Engineering College, Asansol West Bengal- 713305 Asansol ----- 8)Avishek Banerjee Address of Applicant :Assistant Professor, Department Computer Science and Business System, Asansol Engineering College, Asansol West Bengal- 713305 Asansol ----- 9)Jagendra Singh Address of Applicant :School of Computer science engineering and technology, Bennett University Greater Noida -----
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
Over This system investigates the challenges associated with the use of quad bikes in forestry operations, with a specific focus on rollover incidents and the implementation of Rollover Protection Systems (ROPS). The key findings and implications are outlined as: • Increased concerns with Quad Bike usage • Trade off between ROPS and stability • Influence of approach angle and trailer load • Weight dependent stability effects of ROPS • Track width as a compensatory measure • Challenges in quantifying stability effects • Usability considerations for ROPS design • Practical implications of forestry operations While roll-over protection systems are not directly applicable to motorcycles, the use of trailers can impact bike stability. Proper loading, matching equipment specifications, and rider skill are critical factors to consider when towing a trailer with a motorcycle. It highlights the trade-offs and considerations involved in equipping quad bikes with rollover protection systems (ROPS) for use in forestry operations. Let's break down the key findings and implications. This study provides valuable insights into the factors influencing the static stability of quad bikes, especially when equipped with ROPS. It underscores the need for a nuanced approach, considering various factors such as ROPS weight, track width, and operational conditions to optimize safety in forestry operations involving quad bikes. Further research and real-world testing may be necessary to validate and refine these findings.

No. of Pages : 7 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006975 A

(19) INDIA

(22) Date of filing of Application :01/02/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : IMPACT OF HEDONIC, UTILITARIAN, SOCIAL AND NETWORK GRATIFICATIONS ON CONSUMER PURCHASE INTENTION THROUGH LIVE STREAMING ON SOCIAL MEDIA

(51) International classification :G06Q0030020000, G06Q0050000000, G06Q0050160000, G06Q0030060000, G06F0016953500

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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2)Dr. Naveen Kumar

Name of Applicant : NA

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(57) Abstract :

This research paper explores the impact of different types of gratifications on consumer purchase intention through live streaming on social media. Specifically, the study investigates the effects of hedonic, utilitarian, social, and network gratifications on consumer behavior in the context of live streaming. A comprehensive review of relevant literature is conducted, and empirical evidence is analyzed to provide insights into the role of each type of gratification in shaping consumer purchase intention. The research uses the survey data collected from 339 respondents through online questionnaire. Findings suggest that all four types of gratifications have a positive impact on consumer purchase intention, with hedonic and social gratifications being particularly influential. The results of this study can inform the development of effective live streaming strategies that cater to different consumer needs and preferences, ultimately contributing to the success of social media-based e-commerce.

No. of Pages : 17 No. of Claims : 9

(54) Title of the invention : OPTICAL IMAGING SYSTEM

(51) International classification	:G02B0013000000, G02B0009600000, G02B0013180000, G02B0007020000, G02B0005200000	(71)Name of Applicant : 1)Zhejiang Sunny Optics Co., Ltd Address of Applicant :No. 67-69, Fengle Road, Yangming Street, Yuyao City, Zhejiang 315400, China ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)GAO, Chunghun Address of Applicant :No. 67-69, Fengle Road, Yangming Street, Yuyao City, Zhejiang 315400, China ----- 2)LI, Qian Address of Applicant :No. 67-69, Fengle Road, Yangming Street, Yuyao City, Zhejiang 315400, China ----- 3)ZHANG, Fang Address of Applicant :No. 67-69, Fengle Road, Yangming Street, Yuyao City, Zhejiang 315400, China ----- 4)DAI, Fujian Address of Applicant :No. 67-69, Fengle Road, Yangming Street, Yuyao City, Zhejiang 315400, China ----- 5)ZHAO, Liefeng Address of Applicant :No. 67-69, Fengle Road, Yangming Street, Yuyao City, Zhejiang 315400, China -----
(31) Priority Document No	:202310108476.6	
(32) Priority Date	:03/02/2023	
(33) Name of priority country	:-----	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number:	NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
ABSTRACT OPTICAL IMAGING SYSTEM The present disclosure discloses an optical imaging system, comprising a lens barrel, and a five-piece lens group and a plurality of spacing pieces that are placed in the lens barrel. The five-piece lens group comprises a first lens, a second lens, a third lens, a fourth lens and a fifth lens that are arranged in sequence along an optical axis from an object side to an image side. Here, refractive indices of at least two lenses in the first to fifth lenses are less than 1.6. The plurality of spacing pieces comprise a first spacing piece, a second spacing piece, a third spacing piece and a fourth spacing piece. Here, an effective focal length f5 of the fifth lens, a total effective focal length f of the optical imaging system, an inner diameter d0s of an object—side end-surface of the lens barrel and an outer diameter D0s of the object—side end-surface of the lens barrel satisfy: $2 \leq \frac{f}{f_5} \leq \frac{D_0s}{d_0s}$

No. of Pages : 49 No. of Claims : 10

(54) Title of the invention : WINDING-TYPE LITHIUM ION BATTERY AND ELECTRONIC DEVICE

(51) International classification	:H01M 10/058, H01M 10/0587, H01M 4/13	(71)Name of Applicant :	
(86) International Application No	:PCT/CN2021/102442	1)NINGDE AMPEREX TECHNOLOGY LIMITED	
Filing Date	:25/06/2021	Address of Applicant :No. 1 Xingang Road, Zhangwan Town, Jiaocheng District Ningde, Fujian 352100 -----	
(87) International Publication No	:WO 2022/267024	Name of Applicant : NA	
(61) Patent of Addition to Application Number	:NA	Address of Applicant : NA	
Filing Date	:NA	(72)Name of Inventor :	
(62) Divisional to Application Number	:NA	1)DAL, Zhifang	
Filing Date	:NA	Address of Applicant :No. 1 Xingang Road, Zhangwan Town, Jiaocheng District Ningde, Fujian 352100 -----	
		2)LONG, Hai	
		Address of Applicant :No. 1 Xingang Road, Zhangwan Town, Jiaocheng District Ningde, Fujian 352100 -----	

(57) Abstract :
A winding-type lithium ion battery and an electronic device. The winding-type lithium ion battery comprises an electrode assembly (20); the electrode assembly (20) comprises a first electrode plate (21), a separator (22), and a second electrode plate (23) that are successively stacked and wound; the first electrode plate (21) comprises a first current collector (200a) and multiple first tabs (212) electrically connected to the first current collector (200a); the second electrode plate (23) comprises a second current collector (200b) and multiple second tabs (232) electrically connected to the second current collector (200b); the electrode assembly (20) is flat, and a notch S is provided at at least one corner of the electrode assembly (20). By providing a multi-tab structure, the charge and discharge performance of the battery is improved, and a battery failure can be avoided when a single tab is damaged, thus improving the safety performance of the battery. The provision of the notch can increase the width of the electrode plates, reduce the movement space of the battery when the battery is dropped and reduce the energy density of the battery; meanwhile, the risk of battery leakage is reduced, and the safety performance of the battery is improved.

No. of Pages : 21 No. of Claims : 17

(54) Title of the invention : BATTERY MODULE, ELECTRICAL DEVICE, AND POTTING METHOD

(51) International classification	:B60L50/64, H01M50/171, H01M50/20	(71)Name of Applicant : 1)XIAMEN AMPACK TECHNOLOGY LIMITED Address of Applicant :413-29, No. 942, Second Tonglong Road, Industrial Zone, Torch Hi-Tech Industrial Development Zone (Xiang'an), Xiamen, Fujian, 361000, China -----
(31) Priority Document No	:202310077939.7	--
(32) Priority Date	:17/01/2023	
(33) Name of priority country	:-----	
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number	:NA	1)Xubin Liao
Filing Date	:NA	Address of Applicant :413-29, No. 942, Second Tonglong Road, Industrial Zone, Torch Hi-Tech Industrial Development Zone (Xiang'an), Xiamen, Fujian, 361000, China -----
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
This application discloses a battery module (100), an electrical device (1000), and a potting method. The battery module (100) includes a housing (10), a cell assembly (20), and a first structural component (30). Along a third direction (Z), the cell assembly (20) includes a first side portion (201) and a second side portion (202) disposed opposite to each other. Along the second direction (Y), the cell assembly (20) includes a third side portion (203) and a fourth side portion (204) disposed opposite to each other. The first structural component (30) is at least partially disposed between the housing (10) and the first side portion (201). A first adhesive (10a) is disposed between the first structural component (30) and the housing (10). A second adhesive (20a) is disposed between the first structural component (30) and the first side portion (201).

No. of Pages : 83 No. of Claims : 26

(54) Title of the invention : ELECTROCHEMICAL DEVICE AND ELECTRONIC DEVICE

(51) International classification	:H01M 50/586, H01M 4/13	(71)Name of Applicant :	1)NINGDE AMPEREX TECHNOLOGY LTD.
(86) International Application No	:PCT/CN2021/101875	Address of Applicant :	No.1 Xingang Road, Zhangwan Town
Filing Date	:23/06/2021	Jiaocheng District Ningde, Fujian 352106	-----
(87) International Publication No	:WO 2022/266893	Name of Applicant : NA	
(61) Patent of Addition to Application Number	:NA	Address of Applicant : NA	
Filing Date	:NA	(72)Name of Inventor :	
(62) Divisional to Application Number	:NA	1)LI, Xuecheng	
Filing Date	:NA	Address of Applicant :	No.1 Xingang Road, Zhangwan Town
		Jiaocheng District Ningde, Fujian 352106	-----

(57) Abstract :

The present application provides an electrochemical device and an electronic device. The electrochemical device comprises an electrode assembly. The electrode assembly comprises a first pole piece. The first pole piece comprises a first current collector, a first active substance layer, and a first insulating layer. The first current collector comprises a first surface and a second surface disposed opposite to each other, the first active substance layer is disposed on the first surface, and the first insulating layer is located between the first current collector and the first active substance layer. In the electrochemical device and the electronic device provided by the present application, by providing the insulating layer between the current collector and the active substance layer, an electron channel in this region is blocked. Even if a diaphragm shrinks, since the pole piece in the insulating layer region is not charged, no short circuit occurs even if positive and negative pole pieces come into contact with each other, thereby alleviating the problem of a voltage drop failure. Moreover, the electrolyte content of the electrochemical device provided by the present application is not reduced, and thus the electrical properties of the electrochemical device and the electronic device are not affected.

No. of Pages : 31 No. of Claims : 21

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :02/02/2024

(21) Application No.202417007054 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : COSMETIC TOOL

(51) International classification :A45D 33/34, A45D 40/00, B65D 51/32, A46B 15/00
(31) Priority Document No :202111141297.X
(32) Priority Date :28/09/2021
(33) Name of priority country :-----
(86) International Application No :PCT/CN2022/115104
Filing Date :26/08/2022
(87) International Publication No :WO 2023/051122
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

A cosmetic tool comprises a brush head (10), a material core (20), a movable sleeve (30), a fixed sleeve (40), and a transmission structure. The material core (20) is mounted in the movable sleeve (30), the brush head (10) is located at one end of the movable sleeve (30) and is arranged opposite the material core (20), and a discharge port is formed in an end face of the material core (20) facing the brush head (10). The fixed sleeve (40) is sleeved outside the movable sleeve (30), and the movable sleeve (30) can move along an axial direction. The fixed sleeve (40), the movable sleeve (30) and the brush head (10) are connected by means of a transmission structure, and when the movable sleeve (30) moves along the axial direction, the movable sleeve (30) drives the brush head (10) to turn over by means of the transmission structure, so as to dip in a cosmetic substance at the discharge port. The cosmetic substance of the cosmetic appliance has a simple dipping operation. In addition, the material core and the brush head are integrated into one component, which is convenient to carry.

No. of Pages : 31 No. of Claims : 20

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411006893 A

(19) INDIA

(22) Date of filing of Application :01/02/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A PROCESS OF MAKING AN IMPROVED SUSTAINABLE BRICK

(51) International classification :C04B0028000000, C04B0028040000, G02B0001140000, C04B0111210000, C04B0111000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The invention discloses a process for manufacturing an improved sustainable brick using brick waste powder (BWP) and river sand. The process involves preparing an alkaline activator, combining it with BWP and sand, and optimizing factors like molarity, alkaline solution and curing temperature. The resulting geopolymer bricks exhibit enhanced physio-mechanical properties, reduced efflorescence, and improved thermal resistance. The inventive process provides an eco-friendly solution for utilizing waste materials, contributing to sustainable construction practices.

No. of Pages : 40 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :19/01/2024

(21) Application No.202413003886 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A WATER PURIFICATION SYSTEM USING SAPTAPARNI FLOWER-ACTIVATED CARBON WITH ADVANCED MONITORING AND REGENERATION CAPABILITIES

(51) International classification :A61K0036240000, C02F0001280000, C02F0001000000, C02F0001440000, C02F0009000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :
Filed on :01/01/1900
(62) Divisional to Application Number :NA
Filing Date :NA

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Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING, INDIAN INSTITUTE OF TECHNOLOGY KANPUR, POST OFFICE: IIT KANPUR, UTTAR PRADESH, INDIA, 208016 KANPUR -----

(57) Abstract :

A WATER PURIFICATION SYSTEM USING SAPTAPARNI FLOWER-ACTIVATED CARBON WITH ADVANCED MONITORING AND REGENERATION CAPABILITIES ABSTRACT The present invention provides a water purification system comprising Saptaparni flower activated carbon (SFC) for efficient and sustainable water treatment. The system utilizes activated carbon derived from Saptaparni flowers (*Alstonia scholaris*) as a core filtration medium, offering an eco-friendly alternative to traditional water purification methods. Further, the present invention provides a comprehensive process for producing Saptaparni flower activated carbon (SFC) and integrates it into a filtration unit equipped with inlet and outlet ports. Contaminated water passing through this filtration unit undergoes purification, removing a wide spectrum of impurities and contaminants. The present invention provides the utilization of discarded and potentially hazardous Saptaparni flower fibers in the realm of wastewater treatment. Through the use of natural materials such as the fiber from Saptaparni flowers, the present invention aims to develop sustainable and environmentally friendly techniques of water treatment. This may support initiatives aimed at sustainability and environmental protection. FIG. 2

No. of Pages : 30 No. of Claims : 11

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202418006417 A

(19) INDIA

(22) Date of filing of Application :31/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : UTILIZATION OF DISTRIBUTED GENERATOR INVERTERS AS STATCOM

(51) International classification	:H02J 3/38, H02J 3/01, H02J 3/18, H02J 3/40	(71)Name of Applicant : 1)VARMA, Rajiv Kumar Address of Applicant :511 Cottontail Crescent, London, Ontario N5X 4M4, Canada -----
(31) Priority Document No	:61/242,501	Name of Applicant : NA
(32) Priority Date	:15/09/2009	Address of Applicant : NA
(33) Name of priority country	:-----	(72)Name of Inventor :
(86) International Application No	:PCT/CA2010/001419	1)VARMA, Rajiv Kumar Address of Applicant :511 Cottontail Crescent, London, Ontario N5X 4M4, Canada -----
Filing Date	:15/09/2010	2)KHADKIKAR, Vinod Address of Applicant :Department of Electrical Engineering and Computer Science (EECS), Masdar Institute, PO Box 54224, Abu Dhabi, United Arab Emirates -----
(87) International Publication No	: NA	3)RAHMAN, Shah Arifur Address of Applicant :207-6555 Bonsor Avenue, Burnaby, BC V5H 3E9, Canada -----
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:201818045548	
Filed on	:03/12/2018	

(57) Abstract :

ABSTRACT UTILIZATION OF DISTRIBUTED GENERATOR INVERTERS AS STATCOM The invention provides a method and system for operating a solar farm inverter as a Flexible AC Transmission System (FACTS) device - a STATCOM - for voltage control. The solar farm inverter can provide voltage regulation, damping enhancement, stability improvement and other benefits provided by FACTS devices. In one embodiment, the solar farm operating as a STATCOM at night is employed to increase the connectivity of neighbouring wind farms that produce peak power at night due to high winds, but are unable to connect due to voltage regulation issues. The present invention can also operate during the day because there remains inverter capacity after real power export by the solar farm. Additional auxiliary controllers are incorporated in the solar farm inverter to enhance damping and stability, and provide other benefits provided by FACTS devices.

No. of Pages : 74 No. of Claims : 21

(54) Title of the invention : ELECTROCHEMICAL DEVICE AND ELECTRONIC DEVICE

(51) International classification :H01M 50/533, H01M 4/13, H01M 10/0587 (86) International Application No :PCT/CN2021/136523 Filing Date :08/12/2021 (87) International Publication No :WO 2023/102780 (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)DONGGUAN AMPEREX TECHNOLOGY LIMITED Address of Applicant :No. 1 Industrial West Road, Songshan Lake High-tech Industrial Development Zone Dongguan, Guangdong 523000 ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)YAN, Dongyang Address of Applicant :No. 1 Industrial West Road, Songshan Lake High-tech Industrial Development Zone Dongguan, Guangdong 523000 ----- 2)YANG, Hongzhan Address of Applicant :No. 1 Industrial West Road, Songshan Lake High-tech Industrial Development Zone Dongguan, Guangdong 523000 ----- 3)DONG, Yuyang Address of Applicant :No. 1 Industrial West Road, Songshan Lake High-tech Industrial Development Zone Dongguan, Guangdong 523000 -----

(57) Abstract :
An electrochemical device, comprising an electrode assembly and conductive sheets. The electrode assembly is of a winding structure and comprises a first electrode plate. The first electrode plate comprises a first conductive layer and a first conductive material layer. The first conductive layer comprises a first surface and a second surface, and the first conductive material layer is arranged on the first surface. The first surface comprises a first region. One conductive sheet is connected to the first region and extends out of the first electrode plate. The conductive sheet comprises a third region and a fourth region which are connected to each other. The third region comprises a connecting region, and the conductive sheet is connected to the first region by means of the connecting region. The third region comprises a first edge, a second edge, a third edge, and a fourth edge. The first region comprises a fifth edge, a sixth edge, and a seventh edge. It is defined that the size of the third region in a third direction is T1, the size of the third region in a second direction is T2, the area of the third region is S1, the area of the connecting region is S2, the distance between the first side and the fifth edge is J1, the distance between the second edge and the sixth edge is J2, the distance between the third edge and the seventh edge is J3, and $S2/S1+(J1+J2+J3)/(T1+T2)=30\%$. The present application further provides an electronic device.

No. of Pages : 40 No. of Claims : 20

(54) Title of the invention : A FEEDING MECHANISM FOR A MACHINE TOOL

(51) International classification :A45C0005140000, B23Q0005540000, H01H0003360000, B41J0011380000, B26D0005100000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

(71)Name of Applicant :

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(72)Name of Inventor :

1)KHANDELWAL, PrakashAddress of Applicant :301-303, 'A' Wing, Durian Estate, Goregaon-Mulund Link Road, Goregaon (E), Mumbai – 400063.
Mumbai -----

(57) Abstract :

Abstract Title: A Feeding Mechanism for a Machine Tool The present invention provides a feeding mechanism (100) for a machine tool (10). The feeding mechanism (100) includes a motor (20) with a shaft, a worm gear (30) coupled to the shaft of the motor (20), a feeder shaft (40), a handle (51) coupled to the feeder shaft (40), a worm wheel (50) mounted over the feeder shaft (40), a locking clutch (60), at least one locking ball (70) and a locking shaft (80). When the handle (51) is pulled, the rotational motion transfer from the worm wheel (50) to the feeder shaft (40) is interrupted, and the handle (51) can be rotated manually and when the handle (51) is released, the worm wheel (50) rotates the feeder shaft (40) and thereby performing automatic rotation of the handle (51). The mechanism (100) provides an advantage of switching between manual and automatic mode of operation of the machine tool (10).

Figure 1

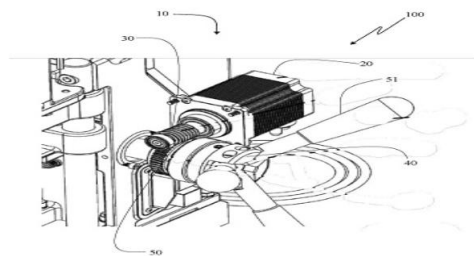


Figure 1

No. of Pages : 22 No. of Claims : 9

(54) Title of the invention : A PORTABLE MAGNETIC DRILLING MACHINE

(51) International classification :A61N0002000000, E21B0007020000, B23B0045000000, G06K0019073000, B25H0001000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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Mumbai -----

Name of Applicant : NA**Address of Applicant : NA**

(72)Name of Inventor :

1)KHANDELWAL, Prakash

Address of Applicant :301-303, 'A' Wing, Durian Estate, Goregaon-Mulund Link Road, Goregaon (E), Mumbai – 400063.
Mumbai -----

(57) Abstract :

The present invention provides a portable magnetic drilling machine (100) which includes a base (10), a pillar (30), a drilling bit assembly (40) and a handle (20). The handle is connected to a central part of a top portion of the portable magnetic drilling machine for lifting and carrying the portable drilling magnetic machine with minimal wobbling. The present invention has the advantage of reducing the effort of a person in holding the machine. Figure 1

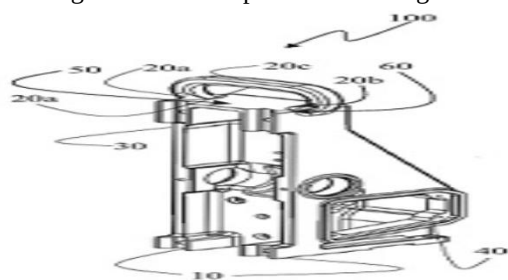


Figure 1

No. of Pages : 14 No. of Claims : 4

(54) Title of the invention : A PORTABLE MAGNETIC DRILLING MACHINE

(51) International classification :B25H0001000000, A47J0043046000, A61N0002000000, B23Q0011000000, E21B0007020000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

(71)Name of Applicant :

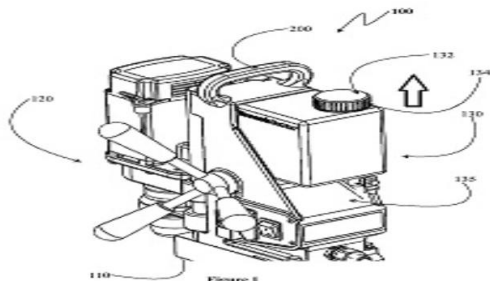
1)Broachcutter Drilling Machines Pvt. LtdAddress of Applicant :301-303, 'A' Wing, Durian Estate, Goregaon-Mulund Link Road, Goregaon (E), Mumbai – 400063.
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1)KHANDELWAL, PrakashAddress of Applicant :301-303, 'A' Wing, Durian Estate, Goregaon-Mulund Link Road, Goregaon (E), Mumbai – 400063.
Mumbai -----

(57) Abstract :

Abstract Title: A Portable Magnetic Drilling Machine The present invention provides a portable magnetic drilling machine (100). The portable magnetic drilling machine (100) is having a base (110), a housing (120), a drill bit assembly, and a coolant container. The portable magnetic drilling machine is having the base operable for magnetically coupling the portable magnetic drilling machine with a workpiece. The housing is vertically extended from the base and the drill bit assembly is arranged to a side portion of the housing facing downwards of the housing. The portable magnetic drilling machine is provided with a coolant container. The coolant container is removably attached to one side portion of the portable magnetic drilling machine. The coolant container is attached using a coolant container holder (135) by a dovetail joint. The coolant container is having a female dovetail profile and the coolant container holder is having a male dovetail profile for removably placing and attaching the coolant container thereon. Figure 1



No. of Pages : 19 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202221056498 A

(19) INDIA

(22) Date of filing of Application :01/10/2022

(43) Publication Date : 09/02/2024

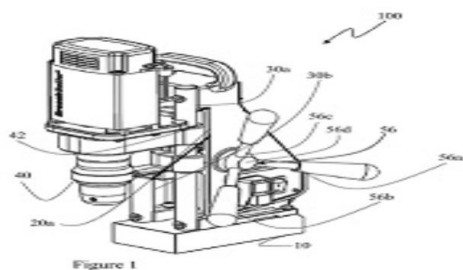
(54) Title of the invention : A PORTABLE MAGNETIC DRILLING MACHINE

(51) International classification :E21B0015000000, G01N0021640000, E21B0010620000, E21B0007020000, A61N0002000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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Name of Applicant : NA
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(72)Name of Inventor :
1)KHANDELWAL, Prakash
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Mumbai -----

(57) Abstract :

Title: A Portable Magnetic Drilling Machine The present invention provides a portable magnetic drilling machine (100). In the existing portable magnetic drilling machine, the drill bit assembly may lose the connection with the pillar of the drilling machine which needs to be fixed properly for sliding. The portable magnetic drilling machine includes a base (10) and a pillar (20). Also, the portable magnetic drilling machine (100) is having at least one pipe (30) which is connected to the pillar on a side of the pillar (20). A drill bit assembly (40) is slidably arranged with the pipe (30) thereon. The drill bit assembly (40) is movable from a first position (42a) to a second position (42b). The present invention provides the advantage of less maintenance cost. Figure 1



No. of Pages : 16 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :04/11/2022

(21) Application No.202221063143 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : PRESSURE TESTING UNIT FOR LEAKAGES TESTING

(51) International classification :H04L0009320000, G01M0003280000, G01M0003320000, A61P0035000000, G06F0021510000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

(71)Name of Applicant :

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Address of Applicant :Ordinance Factory Ambernath, Thane, Maharashtra- 421502 Thane -----

(57) Abstract :

ABSTRACT PRESSURE TESTING UNIT FOR LEAKAGES TESTING The present invention a pressure testing tool is designed to check for leaks and to determine the pressure-withstand capacity of cartridge cases or pipelines. The proposed invention enables for the detection of leaks and cracks in cartridge cases or pipelines without the need of electrical or mechanical power, and it is extremely safe and simple to use by anyone with little or no experience.

No. of Pages : 14 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :04/11/2022

(21) Application No.202221063144 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : EQUI FLOW STRESS DIE

(51) International classification :B29C0048120000, C22C0038060000, B21C0023000000, C21D0009460000, C22C0038040000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT EQUI FLOW STRESS DIE The present invention provides a process of manufacturing of high-strength aluminium alloy extruded profiles used for armoured vehicles and aircraft parts made of the (Al-Cu-Mn-Mg) alloy system with a given chemical composition. The proposed invention seeks to provide a solution to reduce the extrusion pressure and extrusion force for extrusion of complex profile shapes whose cross sectional area is more than 36 times the cross sectional area of the liner of a container.

No. of Pages : 14 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202221074678 A

(19) INDIA

(22) Date of filing of Application :22/12/2022

(43) Publication Date : 09/02/2024

(54) Title of the invention : CONCENTRICITY GAUGE TO CHECK CONCENTRICITY OF 105 MM SHEATH CARTRIDGE CASE AND METHOD THEREOF

(51) International classification :G16H0050500000, H04R0009020000, G16B0025100000, H04H0060330000, G06F0003048830

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

(71)Name of Applicant :

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Address of Applicant : NA

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2)Rakesh Yerunkar

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(57) Abstract :

ABSTRACT CONCENTRICITY GAUGE TO CHECK CONCENTRICITY OF 105 MM SHEATH CARTRIDGE CASE AND METHOD THEREOF The present invention provides an instrument used to accurately check the concentricity at three different points on the Cartridge Case at the same time.

No. of Pages : 12 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202321002352 A

(19) INDIA

(22) Date of filing of Application :11/01/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD OF GEAR SHIFTING FOR A BICYCLE

(51) International classification :B62M25/08, B62M9/121,
B62M9/122, B62M9/123

(86) International Application :NA
No :NA

Filing Date

(87) International Publication : NA
No

(61) Patent of Addition to :NA
Application Number :NA

Filing Date

(62) Divisional to Application :NA
Number :NA

Filing Date

(71)Name of Applicant :

1)INKODOP TECHNOLOGIES PRIVATE LIMITED

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Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

1)Akshar K R

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– 411033, India Pune -----

(57) Abstract :

The present disclosure describes a system and method of gear shifting for a bicycle. The system comprises a motor, a rear derailleur, plurality of gears and an electronic control unit. The motor and the rear derailleur are connected via a mechanical arrangement and the motor is positioned vertically. The mechanical arrangement comprises a motor link and a connecting link between the motor and the rear derailleur. The system enables changing from one gear to another via the motor. The changing from one gear to another is actuated via an electronic control unit by generating a gear shift signal and executing rotation of motor shaft for the change of gear. The motor shaft rotates at a predefined angle and is enabled via the electronic control unit based on one or more parameters, thereby shifting from one gear to another for a bicycle.

No. of Pages : 26 No. of Claims : 11

(54) Title of the invention : COMPACT HEAD MOUNTED DISPLAY WITH WIDE VIEW AND VARIABLE FOCUS

(51) International classification :F21V8/00, G02B27/00,
G02B27/01, G02B27/02

(86) International Application
No :NA
Filing Date :NA

(87) International Publication
No : NA

(61) Patent of Addition to
Application Number :NA
Filing Date :NA

(62) Divisional to Application
Number :NA
Filing Date :NA

(71)Name of Applicant :**1)Dimension NXG Private Limited**

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Name of Applicant : NA**Address of Applicant : NA****(72)Name of Inventor :****1)Abhishek Tomar**

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4)Yukti Suri

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Maharashtra -400604, India Thane -----

5)Purwa Rathi

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Maharashtra -400604, India Thane -----

(57) Abstract :

The present invention is directed towards a compact and lightweight head mounted device that achieves variable focus with wider field of view using principles of light field technology, variable focus optical element and a hybrid waveguide. The head mounted device comprises of an optical arrangement that includes generating of 3D light field, relaying the generated light field through a relay optics where the reference depth plane is adjusted to coincide with location of virtual objects. Finally, the light field with multiple depth cues is transmitted through a hybrid waveguide where the optical properties of light field are preserved and optical path is folded to generate images of higher resolution and contrast ratio. This makes the overall device light with eliminated vergence accommodation conflict.

No. of Pages : 33 No. of Claims : 14

(54) Title of the invention : A MECHANISM FOR PREVENTING THE FREEFALL OF A MACHINING ASSEMBLY

(51) International classification :A61B0017160000, B23B0029040000, A61B0034100000, A63G0031000000, G11B0019040000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

(71)Name of Applicant :

1)Broachcutter Drilling Machines Pvt Ltd.

Address of Applicant :301-303, A Wing, Durian Estate, Goregaon Mulund Link Road, Goregaon (East) Mumbai MH-400063. Mumbai -----

Name of Applicant : NA**Address of Applicant : NA**

(72)Name of Inventor :

1)KHANDELWAL, Prakash

Address of Applicant :301-303, A Wing, Durian Estate, Goregaon Mulund Link Road, Goregaon (East) Mumbai MH- 400063. Mumbai -----

(57) Abstract :

Abstract Title: A Mechanism for preventing the Freefall of a Machining Assembly The present invention relates to the mechanism (100) for preventing the freefall of a machining assembly. The mechanism (100) consists of a coupler (20) on a fixed frame (30), a feeder shaft (40) for the rotary motion of a handle (51), the handle (51) for adjusting the feeding motion, and a locking shaft (80) connected to the handle (51). This locking shaft (80) can move between two positions. The first position (100a) is operable in which an operator can operate mechanism (100) freely. In a second position (100b) the mechanism (100) is non-operable to prevent the free fall of the machine assembly. Both positions are achieved by engaging and disengaging of a locking ball (70) and grooves (22) arranged in the coupler (20). Figure 2.

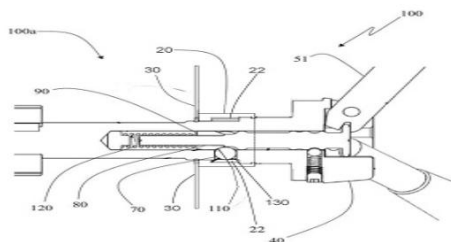


Figure 2

No. of Pages : 25 No. of Claims : 8

(54) Title of the invention : A POWER FEEDING MECHANISM FOR A DRILLING MACHINE

(51) International classification :A61B0034300000, A61B0017170000, B23Q0001480000, F16H0063300000, B23B0047180000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

(71)Name of Applicant :

1)Broachcutter Drilling Machines Pvt. Ltd

Address of Applicant :301-303, 'A' Wing, Durian Estate, Goregaon- Mulund Link Road, Goregaon (E), Mumbai – 400063. Mumbai -----

Name of Applicant : NA**Address of Applicant : NA**

(72)Name of Inventor :

1)KHANDELWAL, Prakash

Address of Applicant :301-303, 'A' Wing, Durian Estate, Goregaon- Mulund Link Road, Goregaon (E), Mumbai – 400063. Mumbai -----

(57) Abstract :

Abstract A Power Feeding Mechanism for A Drilling Machine The present invention provides a power feeding mechanism (100) for a drilling machine. Existing mechanisms require more effort to perform a feeding operation. The mechanism (100) includes a handle (30), a feeding shaft (20), a feeding gear (30) and a cluster gear (50). The cluster gear (50) is connected to a rack (60) of the drilling machine. When the handle (30) is rotated, the feeding shaft (20) rotates the feeding gear (40) which in turn rotates the cluster gear (50). The rotation of the cluster gear (50) causes linear movement of the rack (60) which enables the movement of a cutting tool towards and away from a workpiece. The mechanism (100) provides a mechanical advantage while operating the handle (30), thereby reducing fatigue on the operator. Figure 1

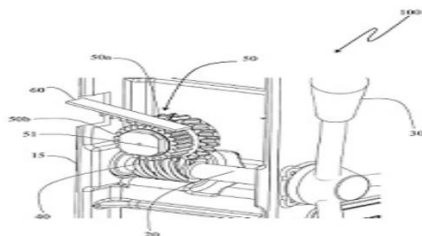


Figure 1

No. of Pages : 16 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202321054264 A

(19) INDIA

(22) Date of filing of Application :12/08/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD FOR POTHOLE DETECTION USING IOT TECHNOLOGY

(51) International classification :E01C0023060000, E01C0011000000, G01S0013931000, G01S0015931000, G01S0013880000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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4)Tejas Sudhakar Rayate

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(57) Abstract :

Present disclosure relates to a system (100) for pothole detection. The system (100) comprises a set of sensors (106, 108), a control unit (102), a display device (104), a GPS (110), a cloud (116) and a power supply unit (118). The set of sensors (106, 108) comprises at least one ultrasonic sensor (106) and at least one proximity sensor (108). The control unit (102) is configured to receive data from the set of sensors (106, 108). The GPS (110) is connected to the control unit (102). The control unit (102) is configured to process the data received from the set of sensors (106, 108) to detect potholes. The display device (104) presents information related to the detected potholes. The system (100) provides alerts or instructions based on the detected potholes. The information related to the detected potholes is communicated to the cloud (116).

No. of Pages : 21 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :27/09/2023

(21) Application No.202321064948 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : WIRELESS POWER TRANSFER PLANS FOR INSTALLABLE BIOMEDICAL COMPONENTS

(51) International classification :A61N1/00, A61N1/36, A61N1/378, A61N1/39, H02J50/15
(86) International Application No :NA
Filing Date :NA
(87) International Publication No: NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The several ways used to transfer wireless power in implantable medical devices were studied. These methods include capacitive coupling, inductive coupling, magnetic resonance coupling, and, more recently, acoustic and optical powering techniques. In implantable medical devices, wireless power transfer may be replaced by another method. implanted pacemakers, optogenetic devices, and bio-impedance sensors are just a few of the cutting-edge biomedical topics that will be covered by the WPT in implanted medical devices. Energy can be transmitted between two vibrating objects at the same frequency, although this process is unaffected by the frequency at which the items oscillate. Induction coil is excited by the oscillating circuit, which produces an alternating magnetic field. The key benefits of wireless power transfer are its low cost, minimal complexity in design, and lower frequency operation.

No. of Pages : 11 No. of Claims : 1

(54) Title of the invention : A BRUSH HOLDER FOR AN ELECTRIC MACHINE

(51) International classification :H02K0005140000, H01R0039380000, A46B0015000000, B44D0003120000, H01R0039400000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

(71)Name of Applicant :

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Mumbai -----

(57) Abstract :

Abstract Title: A Brush Holder for an Electric Machine The present invention provides a brush holder (10) for an electric machine (100). The electrical machine (100) includes a body (200). The body is having a left side portion (20a) and a right-side portion (20b). The base or mounting structure is configured on the left side portion and the right-side portion of the body. The base or mounting structure is configured to place a plurality of brush holder (10) thereon. The brush holder (10) is made of a Sheet Moulding Compound (SMC) material. Also, the brush holder (10) is manufactured by a moulding process. The brush holder (10) provides an advantage of working at higher operating temperatures and are cost effective. Figure 1

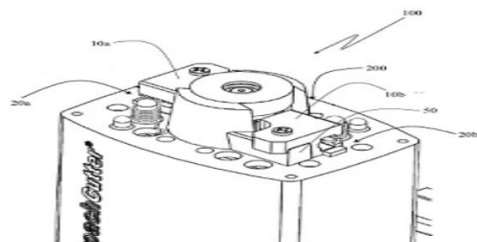


Figure 1

No. of Pages : 16 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202321072188 A

(19) INDIA

(22) Date of filing of Application :23/10/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : AERATION DEVICE WITH DIRECTIONAL FLOW TO THE LIQUID

(51) International classification :C02F0003200000, C02F0007000000, C02F0001440000, B01D0065080000, C02F0103000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

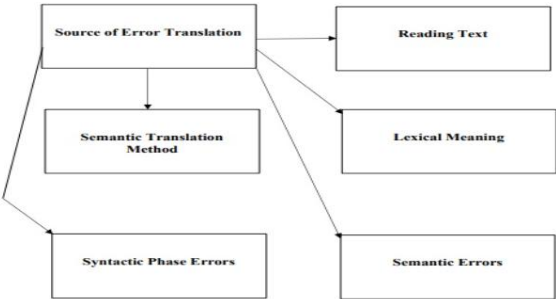
This invention is done to combine the function of providing diffused aeration to the water body and also move the water in the desired direction, thus creating a current and moving the water along with it. The diffused aeration is provided from the bottom of the water body where it is most needed. And the directional flow of the water is provided at the top where most of the solid particles and waste are floating. The product has a hollow base with lid in which weight like cement, sand or any other heavy item can be put to hold it under water or any other liquid and not float to the surface. There is a tapered / slanting cover on the diffuser which covers the top to ensure that the bubbles that are generated do not go straight up. This aeration device is characterized by this tapered cover which guides the exiting bubbles and hence the liquid along with it, in the desired direction. The cover can be moved and rotated to give direction to the bubbles. As the bubbles rise up, the slanting roof of the cover acts as a guide for the bubbles. The bubbles and liquid are pushed by the slant and direction and angle of the cover in the desired direction. The cover is open on the bottom to allow the bubbles and liquid in and then hit the slanted top. The slant of the top part of the cover is such that it is on the opposite side of the open side of the cover. So the bubbles and liquids are pushed towards the open side and the liquid and bubbles move out from the cover and into the open area of the liquid, effectively creating a flow or current in the desired direction.

No. of Pages : 13 No. of Claims : 6

(54) Title of the invention : TRANSLATION ERROR REDUCTION APPROACH IN ENGLISH LANGUAGE

(51) International classification	:G06F0040580000, G06Q0010100000, G06F0040400000, G06F0040550000, G01N0025140000	(71)Name of Applicant : 1)Dr.Rajani Shivajirao Patil Address of Applicant :Principal, Mahilaratna Pushpatai Hiray Arts, Science and Commerce Mahila Mahavidyalaya, Malegaon Camp, Tal-Malegaon, Nashik, Maharastra -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number	:NA	1)Dr.Rajani Shivajirao Patil
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(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
The ability to convey ideas from one language into another is now recognized as a type of talent in translation. It is impossible to translate anything without taking into account the mistakes that may arise. These mistakes cannot be ignored because translation aims to convey the same content in a different language by using the same words from the original. The message itself cannot be altered, even if the form does. Certain translators may be familiar with certain errors, while others may not be, depending on their cultural background. There are solutions available for resolving these mistakes as well. Translating language is a highly technical undertaking that requires a great deal of skill to translate successfully into their true meaning.



No. of Pages : 11 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202321011561 A

(19) INDIA

(22) Date of filing of Application :20/02/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : MAGMETER FLOW TUBE ASSEMBLY WITH INTEGRATED ELECTRODE INSULATION AND METHOD OF FABRICATION THEREOF

(51) International classification :G01F1/58,
G01F15/00

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application :NA
Number :NA

Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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INDIA Pune -----

(57) Abstract :

ABSTRACT MAGMETER FLOW TUBE ASSEMBLY WITH INTEGRATED ELECTRODE INSULATION AND METHOD OF FABRICATION THEREOF Magmeter flow tube assembly (1) with integrated electrode insulation and method of fabrication is described wherein an inner liner (200) meant for electrode insulation is formed as an integral part of flow tube (100). A machined cavity (101) created on the inner surface of said flow tube (100) decides shape of inner liner (200) which is either in the form of cylindrical tube or electrode sleeves (201). The method of fabrication of said flow tube assembly includes creating the machined cavity (101) in predefined shape and pouring the insulating material to acquire the form said machined cavity (101). This method eliminates complex procedural steps and need of multiple transportation. This in turn reduces human error and enhances accuracy. The principal advantage of the method is to maintain the inner liner (200) within confined region of flow tube (100) in compact form thus saving cost of inner liner material.

No. of Pages : 23 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202321050545 A

(19) INDIA

(22) Date of filing of Application :26/07/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN IOT BASED HEALTH DIAGNOSIS DEVICE

(51) International classification :G16H0040670000, A61B0005145000, H04L0067100000, H04L0067120000, G06F0001160000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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3)SALBARDE, Pandurang Ramrao

4)SALBARDE, Jyoti Pandurang

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(57) Abstract :

The present invention is related to an IOT based health diagnosis device. According to the invention, a multiple medical I/O processor and wireless data transmission device combine to form a consolidated device that combines several individual medical devices into a single unit, allowing for a more streamlined and integrated approach to remote healthcare. This segment encompasses the integration of sensors, gadgets, and essential electronic and mechanical components to generate data. It manages the processing of data, making any necessary improvements or modifications, and preparing it for transmission through the output channels. It enables the device to communicate with remote systems, such as cloud platforms, allowing for data transmission and retrieval from remote locations. The hardware architecture diagram delineates the interaction and flow of information among the INPUT component, the CPU AND OUTPUT component, and the REMOTE component, ensuring efficient data processing, transformation, and wireless communication with cloud-based services. Figure 1

No. of Pages : 16 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :15/12/2023

(21) Application No.202321085686 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A METHOD OF COBALT-IRON-LAYERED-DOUBLE-HYDROXIDE NANOSHEETS THIN FILM FOR ELECTROCATALYTIC OXYGEN EVOLUTION REACTION

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(51) International classification	:B01J23/75, B01J35/00, B82Y30/00, B82Y40/00, C01G49/00, C25B11/091	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

A method claimed for the preparation of dip-coated monolayered cobalt-iron-layered double hydroxide (Co-Fe-LDH) nanosheets by delamination of nitrate intercalated Co-Fe-LDH in water for electrocatalytic oxygen evaluation reaction. The structural study using X-ray diffraction (XRD) reveals a well-crystalline hexagonal layered Co-Fe-(NO)₃-LDH structure with R-3m rhombohedral symmetry. The delamination of Co-Fe-LDH is confirmed by transmission electron microscopy and selected area electron diffraction analysis. The zeta potential confirms the presence of a positive charge on the surface of Co-Fe-LDH nanosheets. The dip-coated cobalt-iron-layered-double-hydroxide nanosheets thin film electrode showed an overpotential of 206 mVat 10 mA cm⁻².

No. of Pages : 18 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202321078503 A

(19) INDIA

(22) Date of filing of Application :18/11/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN IMPROVED PROCESS FOR SYNTHESIS OF 3-(PIPERAZIN-1-YL)-1,2-BENZOTHAZOLE DERIVATIVES

(51) International classification :A61K31/495, A61K31/496, A61K31/4995, C07D241/00, C07D277/62, C07D295/00, C09B29/045 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Prashant Ladkat Address of Applicant :Department of Chemistry, Padmashri Vikhe Patil College of Arts, Science and Commerce, Pravaranagar A/P-Loni Kd, Tal- Rahata, District- Ahmednagar (MS), PIN – 413713 Loni ----- ----- 2)Anil Gadhave 3)Bhagwat Uphade 4)Dilip Aute 5)Gopinath Shirole 6)Vijay Kadnor Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Prashant Ladkat Address of Applicant :Department of Chemistry, Padmashri Vikhe Patil College of Arts, Science and Commerce, Pravaranagar A/P-Loni Kd, Tal- Rahata, District- Ahmednagar (MS), PIN – 413713 Loni ----- ----- 2)Anil Gadhave Address of Applicant :Department of Chemistry, Padmashri Vikhe Patil College of Arts, Science and Commerce, Pravaranagar A/P-Loni Kd, Tal- Rahata, District- Ahmednagar (MS), PIN – 413713 Loni ----- ----- 3)Bhagwat Uphade Address of Applicant :Department of Chemistry, Padmashri Vikhe Patil College of Arts, Science and Commerce, Pravaranagar A/P-Loni Kd, Tal- Rahata, District- Ahmednagar (MS), PIN – 413713 Loni ----- ----- 4)Dilip Aute Address of Applicant :Department of Chemistry, Padmashri Vikhe Patil College of Arts, Science and Commerce, Pravaranagar A/P-Loni Kd, Tal- Rahata, District- Ahmednagar (MS), PIN – 413713 Loni ----- ----- 5)Gopinath Shirole Address of Applicant :Department of Chemistry, Padmashri Vikhe Patil College of Arts, Science and Commerce, Pravaranagar A/P-Loni Kd, Tal- Rahata, District- Ahmednagar (MS), PIN – 413713 Loni ----- ----- 6)Vijay Kadnor Address of Applicant :Department of Chemistry, Padmashri Vikhe Patil College of Arts, Science and Commerce, Pravaranagar A/P-Loni Kd, Tal- Rahata, District- Ahmednagar (MS), PIN – 413713 Loni ----- -----

(57) Abstract :

ABSTRACT OF THE INVENTION: AN IMPROVED PROCESS FOR SYNTHESIS OF 3-(PIPERAZIN-1-YL)-1,2-BENZOTHAZOLE DERIVATIVES The present invention relates to an improved process for synthesis of 3-(piperazin-1-yl)-1,2-benzothiazole derivatives with high purity and high yield. The present invention relates to the process which is fast, simple, highly efficient, and reproducible. The present invention further provides the optional synthesis of 5-((4-(benzo[d]isothiazol-3-yl)piperazin-1-yl)methyl)-1,3,4-oxadiazol-2-amine derivatives and 5-((4-(benzo[d]isothiazol-3-yl)piperazin-1-yl)methyl)-4H-1,2,4-triazole-3-thiol derivatives.

No. of Pages : 25 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202321078504 A

(19) INDIA

(22) Date of filing of Application :18/11/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : NOVEL 3-(PIPERAZIN-1-YL)-1,2-BENZOTHAZOLE DERIVATIVES

(51) International classification :A61K31/495, A61K31/496, A61K31/4995, C07D241/00, C07D277/62, C07D295/00, C09B29/045

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT OF THE INVENTION: NOVEL 3-(PIPERAZIN-1-YL)-1,2-BENZOTHAZOLE DERIVATIVES The present invention relates to novel 3-(PIPERAZIN-1-YL)-1,2-BENZOTHAZOLE compounds, derivatives, analogues, pharmaceutically acceptable salt, solvate, enantiomer or diastereomer thereof, represented by formula (I). The invention also provides a pharmaceutical composition comprising therapeutically effective amount of the novel 3-(PIPERAZIN-1-YL)-1,2-BENZOTHAZOLE compounds (as defined herein), which is useful for the treatment of bacterial infections. (I)

No. of Pages : 24 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :11/12/2023

(21) Application No.202321084481 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : DOCBLEND REVERSIBLE APRON-BLAZER

(51) International classification :A41D0013040000, A43B0003000000, B60R0021340000, A61K0031470000, H01J0029500000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The main concept for designing the apron is to encourage physicians because they really have busy schedules and a very eventful life. To do this, create a reversible apron that can be worn in both directions, that they may wear during workhours and even over event hours. A cause that is much greater than the design itself and creates an apron that have something to say. All whilst focusing on the quality and paying attention to detail and the problems faced by the doctors in their whole busy schedule. The main focus of the design is on the problems encountered by physicians and even make their day reversible colourful, which will eventually make their life cheerful. Made 2 loops for carrying their earphones as they can't handle many things at a time and also created a concealed pocket for keeping their expensive things.

No. of Pages : 10 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202321089371 A

(19) INDIA

(22) Date of filing of Application :28/12/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SYSTEM AND METHOD DETECTING METALLIC STRUCTURE DETERIORATION IN TRANSITION FIELD

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(51) International classification	:G01N27/90	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	Name of Applicant : NA
(61) Patent of Addition to Application Number	:NA	Address of Applicant : NA
Filing Date	:NA	(72)Name of Inventor :
(62) Divisional to Application Number	:NA	1)NAIR, Anil Ravindran
Filing Date	:NA	Address of Applicant :Plot No: W-198, TTC Industrial Area, MIDC, Kopar Khairane, Navi Mumbai - 400710, Maharashtra, India. Mumbai -----

(57) Abstract :

A system 100 to detect change in electromagnetic waves 108 patterns in a metallic structure 102 can includes one or more exciter coils 104 to generates electromagnetic waves; and one or more detector coils 106 placed within a predefined distance from the one or more exciter coils 104 in a field of interest within the metallic structure 102 which is a pipe/tube/plate made of ferrous and alike materials, such that any change in electromagnetic wave 108 pattern indicates any deterioration including early in the metallic structure 102 at atomic level likely to lead towards development of crack. The field of interest 204 is a transition field, defined as the field between a near field 202 and a remote field 206. The distance between the one or more exciter coils 104 and the one or more detector coils 106, are kept between 40mm to 90mm. The variable parameters include change in voltage and frequency of the current.

No. of Pages : 19 No. of Claims : 10

(54) Title of the invention : A SYSTEM FOR A GROCERY CONTAINER WITH MOISTURE AND STORAGE LEVEL DETECTOR USING ARDUINO

(51) International classification :B62B0003140000, B60N0002900000, G08B0025100000, A61B0005010000, G06F0009480000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)SAGE University Address of Applicant :Kailod Kartal, RAU BYPASS, Indore 452020 Indore, Madhya Pradesh India Indore ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Prashant jain Address of Applicant :SAGE University, Kailod Kartal, RAU BYPASS, Indore 452020 Indore, Madhya Pradesh India Indore --- ----- 2)Prof. Madhvi Singh Bhanwar Address of Applicant :SAGE University, Kailod Kartal, RAU BYPASS, Indore 452020 Indore, Madhya Pradesh India Indore --- ----- 3)Dr. Shivangini Saxena Address of Applicant :SAGE University, Kailod Kartal, RAU BYPASS, Indore 452020 Indore, Madhya Pradesh India Indore --- -----

(57) Abstract :
The invention introduces A system for a grocery container with a moisture and storage level detector using Arduino, the system (100) incorporates key components such as an Arduino UNO (101) for computational monitoring, a power supply (102) for continuous operation, a load cell (103) for precise weight measurement, an LCD display (104) for real-time information, a GSM Module (105) for mobile notifications, and a Moisture Sensor (106) for insect prevention. The load cell (103) accurately gauges grocery weight, prompting an Arduino UNO (101) alert when levels drop, signalling users to refill. The GSM Module (105) enables swift order placement via mobile notifications, and the LCD Display (104) enhances user awareness of grocery levels and system status. The Moisture Sensor (106) actively prevents insect growth, issuing alerts if moisture exceeds 8%. This innovation provides a holistic and efficient solution for proactive grocery management. (Figure 1).

No. of Pages : 17 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :05/01/2024

(21) Application No.202421001013 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : TRUST-BASED SECURE AND ENERGY-EFFICIENT ROUTING IN MOBILE AD HOC NETWORKS USING CUCKOO SEARCH ALGORITHM

		(71)Name of Applicant : 1)DR. KIRAN SHRIMANT KAKADE Address of Applicant :LALA LAJPATRAI INSTITUTE OF MANAGEMENT, LALA LAJPATRAI MARG, MAHALAXMI, MUMBAI-400 034, MAHARASHTRA, INDIA. ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)DR. KIRAN SHRIMANT KAKADE Address of Applicant :LALA LAJPATRAI INSTITUTE OF MANAGEMENT, LALA LAJPATRAI MARG, MAHALAXMI, MUMBAI-400 034, MAHARASHTRA, INDIA. ----- 2)DR. VISHAL ARVIND BHOLE Address of Applicant :INDUS BUSINESS SCHOOL -IIEBM, WAKAD- MARUNJE, ROAD, OFF MUMBAI-BANGALORE HIGHWAY, WAKAD, PUNE, MAHARASHTRA 411057. ----- 3)PROF. ANJALI M. KULKARNI Address of Applicant :LALA LAJPATRAI INSTITUTE OF MANAGEMENT, LALA LAJPATRAI MARG, MAHALAXMI, MUMBAI-400 034, MAHARASHTRA, INDIA. ----- 4)DR. JAYANT BRAHMANE Address of Applicant :SGPC'S GURU NANAK INSTITUTE OF MANAGEMENT STUDIES, UNIVERSITY OF MUMBAI , MUMBAI ----- ----- 5)DR. NANASAHEB M. HALGARE Address of Applicant :M.S. BIDVE ENGINEERING, COLLEGE , LATUR 413512 ----- 6)DR. VIJAYKUMAR S. BIDVE Address of Applicant :SYMBOISIS SKILLS AND PROFESSIONAL UNIVERSITY, SCHOOL OF CSIT, KIWALE, PUNE - 412101 ----- ----- 7)DR. PATHAN MOHD. SHAFI Address of Applicant :PROFESSOR, DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING MTTSOC, MIT ART, DESIGN AND TECHNOLOGY UNIVERSITY, LONI KALBHOR, PUNE - 412 201 (INDIA) --- -----
(51) International classification	:H04W0084180000, H04W0040020000, H04W0040240000, H04W0040280000, H04W0028260000	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

This research introduces a novel approach to address critical issues in Mobile Ad Hoc Networking (MANET), focusing on energy efficiency, communication latency, and security concerns. Leveraging a safe optimized routing strategy, the study presents a solution that mitigates energy challenges and reduces communication delays between hops. The Cuckoo algorithm plays a pivotal role, establishing an efficient routing mechanism. The process involves applying fuzzy clustering methods to estimate Cluster Heads (CHs) with the highest trust levels for direct, indirect, and recent trust, overcoming challenges in identifying maximum trust values. The proposed tactic demonstrates a rapid convergence rate and optimizes storage, throughput, and route connection constraints in MANETs. Notably, it effectively addresses the critical goals of achieving low electricity consumption (0.10 m joules), minimal delay (0.0035 milliseconds), high transmission rates (0.70 bps), and an impressive 83% detection accuracy with 100 nodes, even in the absence of adversarial conditions. In conclusion, this research introduces an innovative approach to enhance the energy efficiency, communication speed, and security of MANETs, providing a comprehensive solution through a combination of safe optimized routing and the Cuckoo algorithm. The results showcase the effectiveness of the proposed method, positioning it as a valuable contribution to the field of mobile ad hoc networking.

No. of Pages : 22 No. of Claims : 3

(54) Title of the invention : INNOVATIVE IMAGE ENCRYPTION SYSTEM WITH MEMRISTIVE CHAOTIC SEEDING AND QUANTUM MAPPING FOR ENHANCED SECURITY

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	(71)Name of Applicant : 1)DR. KIRAN SHRIMANT KAKADE Address of Applicant :LALA LAJPATRAI INSTITUTE OF MANAGEMENT, LALA LAJPATRAI MARG, MAHALAXMI, MUMBAI-400 034, MAHARASHTRA, INDIA. ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)DR. KIRAN SHRIMANT KAKADE Address of Applicant :LALA LAJPATRAI INSTITUTE OF MANAGEMENT, LALA LAJPATRAI MARG, MAHALAXMI, MUMBAI-400 034, MAHARASHTRA, INDIA. ----- 2)PROF. ANJALI M. KULKARNI Address of Applicant :LALA LAJPATRAI INSTITUTE OF MANAGEMENT, LALA LAJPATRAI MARG, MAHALAXMI, MUMBAI-400 034, MAHARASHTRA, INDIA. ----- 3)DR. JAYANT BRAHMANE Address of Applicant :SGPC'S GURU NANAK INSTITUTE OF MANAGEMENT STUDIES, UNIVERSITY OF MUMBAI , MUMBAI - ----- 4)DR. NANASAHEB M. HALGARE Address of Applicant :M.S. BIDVE ENGINEERING, COLLEGE , LATUR 413512 ----- 5)DR. VIJAYKUMAR S. BIDVE Address of Applicant :SYMBOISIS SKILLS AND PROFESSIONAL UNIVERSITY, SCHOOL OF CSIT, KIWALE, PUNE - 412101 ----- 6)DR. PATHAN MOHD. SHAFI Address of Applicant :PROFESSOR, DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING MTTSOC, MIT ART, DESIGN AND TECHNOLOGY UNIVERSITY, LONI KALBHOR, PUNE - 412 201 (INDIA) ----- 7)DR. SULAKSHANA BHAUSAHEB MANE Address of Applicant :BHARATI VIDYAPEETH COLLEGE OF ENGINEERING, NAVI MUMBAI, SECTOR-7, CBD, BELAPUR, NEAR KHARGHAR, RAILWAY STATION, NAVI MUMBAI-400614 -----

(57) Abstract :

The research introduces an innovative image encryption system combining diverse techniques like memristive chaotic systems, Arnold maps, and quantum chaotic maps, enhancing image protection against unauthorized access. The methodology utilizes the encrypted image's output values, employing S-boxes, XOR functions, and rigorous randomness tests for robustness. The proposed encryption method undergoes comprehensive theoretical and practical assessments, ensuring reliability. Security evaluations involve histogram analysis, correlation coefficients, entropy assessment, and key space analysis, emphasizing the system's security. The study explores DNA-based and chaotic cryptography facets, considering efficiency and encryption speed, resulting in a Cipher Rating Taxonomy (CRT) for cipher reliability assessment. The system withstands attacks, offering faster execution compared to similar approaches. Future research aims to integrate DNA coding and quantum chaotic maps for enhanced encryption, promising advancements in the field.

No. of Pages : 9 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202321038762 A

(19) INDIA

(22) Date of filing of Application :06/06/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : HIGH PERFORMANCE STRUCTURAL ELEMENTS

(51) International classification :C07K0016460000, G01M0005000000, C08F0010000000, C07K0016280000, G01L0019000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT HIGH PERFORMANCE STRUCTURAL ELEMENTS The invention relates to the civil and structural engineering field. The Invention in particular provides high performance structural elements like concrete slab which would be capable of preventing perforation and withstand catastrophic failure due to high rate of loading.

No. of Pages : 24 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202321076158 A

(19) INDIA

(22) Date of filing of Application :08/11/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : A COMPOSITION FOR COGNITIVE ENHANCEMENT DERIVED FROM BACOPA MONNIERI AND CENTELLA ASIATICA

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(51) International classification	:A61K36/23, A61K36/68, A61K45/06, A61P25/00, A61P25/28	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The present invention is related to a synergistic herbal composition for cognitive enhancement derived from bacopa monnieri and centella asiatica. Bacopa monnieri and Centella asiatica are well known nootropic herbs in Ayurveda. Triterpenoidal saponin glycosides Bacoside A and Asiaticosides are mainly considered as responsible for nootropic activity of these both herbs. The present invention is related to the beneficial effects of potent synergistic combination of Bacopa monnieri and Centella asiatica derived extracts in enhancement of attention, memory, cognitive skills in neurodegenerative diseases like Alzheimer's, Parkinson's disease, Attention deficit disorders, Multiple sclerosis and other types of dementias. In the present invention, both simple hydroalcoholic extracts as well as standardized extracts containing specific amount of selected bioactives of Centella asiatica and Bacopa monnieri have been prepared and used for combination. The synergistic combination in present invention found to be neuroprotective and enhanced significantly memory and cognitive skills during experiments.

No. of Pages : 22 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202321076160 A

(19) INDIA

(22) Date of filing of Application :08/11/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : A MULTI HERBAL COMPOSITION FOR COGNITIVE ENHANCEMENT AND NEURODEGENERATIVE DISORDER MANAGEMENT

(51) International classification :A61K36/185, A61K36/39, A61K36/68, A61K36/81, A61K36/9066, A61P25/00, A61P25/28 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)DEORE, Sharada Laxman Address of Applicant :Associate Professor, Govt. College of Pharmacy, Amravati, Maharashtra, India - 444604 ----- ----- 2)BAVISKAR, Bhushan Arun 3)KHADABADI, Somshekhar Sanganbasappa 4)KIDE, Anjali A. 5)SHENDE, Bhavana A. Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)DEORE, Sharada Laxman Address of Applicant :Associate Professor, Govt. College of Pharmacy, Amravati, Maharashtra, India - 444604 ----- ----- 2)BAVISKAR, Bhushan Arun Address of Applicant :Assistant Professor, Govt. College of Pharmacy, Amravati, Maharashtra, India - 444604 ----- ----- 3)KHADABADI, Somshekhar Sanganbasappa Address of Applicant :Principal, Govt. College of Pharmacy, Amravati, Maharashtra, India - 444604 ----- 4)KIDE, Anjali A. Address of Applicant :Govt. College of Pharmacy, Amravati, Maharashtra, India - 444604 ----- 5)SHENDE, Bhavana A. Address of Applicant :Govt. College of Pharmacy, Amravati, Maharashtra, India - 444604 -----

(57) Abstract :

The present invention is related to a multi herbal synergistic composition for cognitive enhancement and neurodegenerative disorder management. A Synergistic combination of extracts or neuroprotective phytoconstituents enriched fractions derived from nootropic herbs like Bacopa monnieri, Withania somnifera, Convolvulus pleuricaulis, Emblica officinalis and Curcuma longa for enhancing or improving memory, cognitive skills, learning ability, communication, attention, retention and management of neurodegenerative disorders like Alzheimer's disease, Parkinson's disease etc. The present invention also includes processes for the preparation of the neuroprotective principle rich extracts enriched from Bacopa monnieri, Withania somnifera, Convolvulus pleuricaulis, Emblica officinalis and Curcuma longa for improving brain health and brain functions like cognitive skills, learning ability, memory and retention, attention and communication.

No. of Pages : 23 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421001335 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYNERGISTIC PESTICIDAL COMPOSITION AND PROCESS OF MANUFACTURE THEREOF

(51) International classification :A01N43/56, A01N51/00,
A01P3/00, A01P7/04

(86) International Application
No :NA

Filing Date :NA

(87) International Publication
No : NA

(61) Patent of Addition to
Application Number :NA

Filing Date :NA

(62) Divisional to Application
Number :NA

Filing Date :NA

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(57) Abstract :

The present invention provides a synergistic pesticidal composition capable of improved crop resistance management and effective control of phytopathogenic fungi as well as harmful arthropods while using low dosages and including active compounds in lower concentrations while having improved activity against the harmful pests and a broadened activity spectrum. The present synergistic pesticidal composition comprises A) Pyrazole insecticide B) Thiourea insecticide, and C) a pesticide selected from insecticide or fungicide group.

No. of Pages : 45 No. of Claims : 22

(54) Title of the invention : TIDAL ENERGY CONVERSION SYSTEM USING BUOYANT STRUCTURE WITH HIGH RATIO GEARING.

(51) International classification :B63B22/22, E02B9/08, F03B13/26 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)VIBHAKAR INDUSTRIES PRIVATE LIMITED Address of Applicant :31-SUVIKAS SHED, PHASE-3, WADHWAN-GIDC, SURENDRANAGAR, SURENDRANAGAR, GUJARAT - 363035, INDIA. Surendranagar ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Raval Maulikkumar Bharatkumar Address of Applicant :Jadeshwar Society - 5, Opp. Sun Rise School, Wadhwan - 363030, Surendranagar, Gujarat, India. Surendranagar ----- 2)Bharatkumar Mugatlal Sompura Address of Applicant :Jadeshwar Society - 5, Opp. Sun Rise School, Wadhwan - 363030, Surendranagar, Gujarat, India. Surendranagar ----- 3)Vyas Hitarth Amitkumar Address of Applicant :5 - Divya Shakti Residency, Near Bachpan School, Behind Ganpati Mandir, Manav Mandir Road, Surendranagar, Gujarat, India. Surendranagar -----

(57) Abstract :

Our invention Tidal Energy Conversion System Using Buoyant Structure with High Ratio Gearing is an innovative tidal energy conversion system, designed to harness the vertical linear upward movement of tides and convert it into rotational mechanical energy. Our invention integrates a buoyant structure (1), adaptable in various geometrical shapes, with a high-ratio gear system (9). The gear mechanism, featuring an input shaft (8) and an output shaft (10), amplifies minimal tidal movements into significant rotational motion. The system includes an RPM (Revolutions Per Minute) control (11) and a torque load meter (12) for efficient energy management. Optimized for low-to-high tide transitions (4.2), our invention can be deployed in diverse marine environments, offering a scalable and environmentally friendly solution for tidal energy harnessing. Our invention is particularly suited for renewable energy generation, providing a sustainable alternative to traditional tidal energy methods.

No. of Pages : 28 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421001574 A

(19) INDIA

(22) Date of filing of Application :09/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : NEXT-GEN SOCIETY THROUGH ARTIFICIAL INTELLIGENCE, BLOCKCHAIN, AND IOT-BASED CLOUD APPLICATIONS SECURITY

(51) International classification :G06N002000000, G06F0021620000, H04L0067100000, H04L0067120000, H01L0023000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to :NA
Application Number :NA
Filing Date :NA
(62) Divisional to Application :NA
Number :NA
Filing Date :NA

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(57) Abstract :
The presented invention encapsulates a comprehensive approach to fortifying cloud application security by seamlessly integrating Artificial Intelligence (AI), Blockchain, and the Internet of Things (IoT). The system comprises an AI module employing machine learning algorithms for real-time threat detection and adaptive responses, a Blockchain module ensuring tamper-proof and transparent record-keeping, and an IoT component with sensors and actuators to monitor both virtual and physical security threats. By fostering interoperability among these components, the invention establishes a dynamic, self-learning security framework that not only safeguards sensitive data within cloud environments but also responds proactively to emerging cyber threats. This innovative integration envisions a secure, resilient, and interconnected next-generation society poised at the forefront of digital evolution.

No. of Pages : 18 No. of Claims : 8

(54) Title of the invention : SYSTEM FOR SUSTAINABLE PROLIFERATION OF A MANAGEMENT INNOVATION LAB

(51) International classification (86) International Application No (87) International Publication No (61) Patent of Addition to Application Number (62) Divisional to Application Number :G06Q0010060000, G06N0020000000, G06N0003080000, G06Q0050180000, G06N0005020000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)Dr. Kavita Deepak Kanabar Address of Applicant :Associate Professor, Vivekanand Education Society Institute of Management Studies & Research, Hashu Advani Memorial Complex, 495/497, Collector Colony, Chembur, Mumbai, Maharashtra - 400074, India. ----- --- 2)Dr. Bhavna Raina 3)Vaishali Padake 4)Dr. Anju Nilesh Motwani 5)Dr. Neerja Kashive Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Kavita Deepak Kanabar Address of Applicant :Associate Professor, Vivekanand Education Society Institute of Management Studies & Research, Hashu Advani Memorial Complex, 495/497, Collector Colony, Chembur, Mumbai, Maharashtra - 400074, India. ----- 2)Dr. Bhavna Raina Address of Applicant :Assistant Professor, Vivekanand Educational Society's Institute of Management and Research, Hashu Advani Memorial Complex, 495/497, Collector Colony, Chembur, Mumbai, Maharashtra - 400074, India. ----- --- 3)Vaishali Padake Address of Applicant :KJ Somaiya Institute of Management, Somaiya Vidyavihar University, Vidyavihar East, Mumbai - 400071, India. ----- 4)Dr. Anju Nilesh Motwani Address of Applicant :Assistant Professor, Vivekanand Education Society Institute of Management Studies & Research, Hashu Advani Memorial Complex, 495/497, Collector Colony, Chembur, Mumbai, Maharashtra - 400074, India. ----- 5)Dr. Neerja Kashive Address of Applicant :Associate Professor - HR, Vivekanand Education Society's Business School, Collector Colony, Chembur, Mumbai, Maharashtra - 400074, India. -----

(57) Abstract :

A system for sustainable proliferation of a management innovation lab is described herein. Integrating environmental, social, and economic sustainability principles, the system employs an adaptive learning architecture driven by machine learning algorithms. The collaborative ecosystem engages diverse stakeholders, while sustainable impact metrics ensure transparency. A resource optimization module minimizes waste, and an inclusive innovation framework promotes diversity. Circular economy integration addresses life cycle considerations, and continuous stakeholder feedback drives iterative improvements. Scalable training programs and predictive analytics for innovation trends enhance workforce skills and anticipate market shifts. The model revolutionizes innovation practices for enduring organizational success.

No. of Pages : 13 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :09/01/2024

(21) Application No.202421001642 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A LADDER CLIMBING ROBOT FOR TELECOM TOWER

(51) International classification :B62D0057024000, B23P0019100000, G11B0005480000, B24B0025000000, A63B0022000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

Ladder climbing robot for telecom tower is comprising of base plate (1), pinion (6) powered by servo motor (38) and mounted on base plate (1), left rack (10) fixed to the left slider (8) mounted on base plate (1), right rack (11) fixed to right slider (9) mounted on base plate (1), clamps (14,17,20,23) pivotably fixed to the left and right slider (8, 9) top and bottom respectively, servo motors (39, 40, 41, 42) for rotating the clamps (14,17,20,23) about their own axis (16,19,22,25) respectively, linear motors (43,44,45,46) for gripping of clamps (14,17,20,23) on the rung of ladders, wedge shape grips (55,56,57) on top edge of a base plate (1), bottom end (18) of the left slider (8) and bottom end (24) of a right slider (9) for locking and holding the base plate in case of accidental fall of rigger and rung detection sensor mounted on the clamps (14,17,20,23). FIG. 2

No. of Pages : 30 No. of Claims : 3

(54) Title of the invention : IOT-BASED HEART RATE AND BLOOD OXYGEN MONITOR WITH AUTOMATIC DATA SAVING RELATING TO THE DT (DESIGN THINKING) FRAMEWORK

(51) International classification :A61B0005000000, A61B0005024000, A61B0005020500, G16H0040630000, A61B0005145500

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

The IoT-based Heart Rate and Blood Oxygen Monitor with Automatic Data Saving, guided by Design Thinking principles, represents a groundbreaking solution in healthcare technology. This wearable device seamlessly integrates advanced sensor technology and ergonomic design to provide accurate real-time monitoring of heart rate and blood oxygen levels. The associated application, designed for user-friendly interaction, not only ensures secure automatic data storage but also offers personalized insights. With additional embodiments expanding health parameters and incorporating gamification and social integration, this invention aims to redefine health monitoring by prioritizing user experience, engagement, and comprehensive well-being.

No. of Pages : 17 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :06/01/2024

(21) Application No.202421001238 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : MUPIROCIN MICROEMULGEL FORMULATION FOR TOPICAL APPLICATION AND PREPARATION THEREOF

(51) International classification :A61K0009000000, A61P0031040000, A61K0047100000, A61K0009060000, A61K0031351000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The invention relates to a Mupirocin microemulgel for topical application comprising Mupirocin, Sesame oil, Tween 80 with Span® 80 mixture, Carbopol® 934, methylparaben, propylene glycol, glycerin, triethanolamine and water. The present invention also provides a method for preparing Mupirocin microemulgel. Mupirocin microemulgel composition of present invention is stable and useful to treat Impetigo, a highly contagious skin infection of the superficial epidermis caused by bacteria.

No. of Pages : 33 No. of Claims : 8

(54) Title of the invention : THE IMPLEMENTATION OF AN ARTIFICIAL INTELLIGENCE-BASED ALGORITHM IN THE PRODUCT INFORMATION SECURITY SYSTEM FOR INTERNATIONAL TRADE

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(51) International classification	:G06F0021620000, G06F0021550000, G06F0021600000, H04L0009320000, G06F0021570000	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
The invention pertains to a groundbreaking product information security system tailored for the complexities of international trade. By seamlessly integrating advanced artificial intelligence algorithms, the system dynamically adapts to evolving security threats, offering a multifaceted approach to enhance the confidentiality, integrity, and authenticity of exchanged information. Key components include an AI-based encryption module, real-time anomaly detection, a robust authentication mechanism, and compliance checks, ensuring adherence to international data protection regulations. Additional embodiments encompass behavioral analysis for proactive threat detection and a dynamic access control mechanism for granular user privileges. Furthermore, the system incorporates blockchain technology to establish an immutable audit trail, fostering transparency and accountability throughout the international trade process. This comprehensive and adaptive security framework sets a new standard, providing a resilient solution for securing product information and bolstering trust in the intricate landscape of global trade transactions.

No. of Pages : 16 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :07/01/2024

(21) Application No.202421001265 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN AEROPONIC SYSTEM FOR THE CULTIVATION OF PLANTS

(51) International classification :A01G0031020000, A01G0007040000, B01D0046000000, A01G0031000000, A01G0031060000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

An aeroponic system for the cultivation of plants is described herein. The aeroponic system for plant cultivation within a bamboo structure utilizes suspended roots and a nutrient mist. An air guiding fan directs pollutant-laden air through a filter, ensuring the release of purified air. The system 5 integrates a wireless communication module with various sensors (CO₂, VOC, PM, humidity, temperature) for remote monitoring and control. A precise misting nozzle, supported by a water pump and a motor, facilitates optimal nutrient delivery. The invention offers scalability, modular design, and an adaptive control unit for efficient pollutant removal and plant 10 growth. The invention enables remote operation and real-time data analysis, enhancing sustainable cultivation practices.

No. of Pages : 15 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421000643 A

(19) INDIA

(22) Date of filing of Application :04/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A METHOD FOR HARDENING A BEARING BALL

(51) International classification :B23P15/00, C21D1/18, C21D9/36, C22C38/00, C22C38/02, C22C38/20, C22C38/22, C22C38/28

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

The present subject matter disclosed herein relates to a method (100) for hardening at least one bearing ball. The method comprising, performing (101) a first austenitization on a bearing ball by heating the bearing ball at a first predetermined temperature for a first predetermined period of time, performing 10 (102) a first quenching of the bearing ball using a quenchant, performing (103), a second austenitization on the bearing ball by heating the bearing ball at a third predetermined temperature for a second predetermined period of time, performing (104) a second quenching of the bearing ball using the quenchant, such that the temperature of the bearing ball decreases from the third predetermined 15 temperature to a fourth predetermined temperature and tempering (105) the bearing ball such that the temperature increases from the fourth predetermined temperature to a fifth predetermined temperature to obtain the bearing ball with a through thickness hardness.

No. of Pages : 22 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :12/01/2024

(21) Application No.202421002481 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : CHEMICAL SYNTHESIS OF LAYERED DOUBLE HYDROXIDE COUPLED WITH CARBON NANOTUBE FOR ELECTROCHEMICAL CAPACITOR

(51) International classification :H01G0011860000, H01G0011280000, H01G0009000000, H01G0011040000, C01F0007000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

A method of manufacture of an electrode based on nickel-chromium-layered double hydroxide coupled with CNT nanohybrid for a supercapacitor comprises synthesis of NiCr-LDH coupled with CNT supercapacitor electrode by exfoliation-restacking of positively charged NiCr-LDH nanosheets and negatively charged CNT. The NiCr-LDH coupled with CNT materials were characterized by X-ray diffraction (XRD) and field emission scanning electron microscopy (FE-SEM). The supercapacitive activity of NiCr-LDH coupled with CNT electrode was tested using electrochemical cyclic voltammetry and galvanostatic charge-discharge method. XRD confirms the CNT coupled with NiCr-LDH nanoarchitecture reveals layered stacking structure. The FE-SEM revealed interconnected 2D NiCr-LDH nanosheets coupled with ID CNT to form porous interconnected morphology. The Ni-Cr-LDH coupled with CNT supercapacitor electrode shows outstanding electrochemical properties.

No. of Pages : 17 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421002703 A

(19) INDIA

(22) Date of filing of Application :13/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : COPPER SELENIDE SINGLE CRYSTAL, AND METHOD OF PRODUCTION THEREOF

(51) International classification :C30B0025000000, A61K0009000000, C01B0019000000, C30B0029460000, C30B0023020000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Disclosed herein is copper selenide single crystal and method of its production. The method comprises steps of: synthesizing (S1) a powdered material (P) comprising copper and selenium at a mass ratio of 1: 1 through heat treatment in a vacuum sealed quartz container (100); providing (S2) a tubular quartz enclosure (200) having a source end (202) and a growth end (204) therein; forming (S3) nucleation sites (206) on inner surface of the growth end through hydrogen fluoride treatment; introducing (S4) the powdered material (P) into the source end with addition of iodine at a dosage of 3-5 mg per cubic centimetre of enclosure volume, followed by sealing the enclosure under a vacuum of upto 105 torr; heating (S5) the sealed enclosure (200) in a two-zone furnace (300) having a temperature difference of 45-55 K between a high temperature zone (302) and a low temperature zone (304); and facilitating (S6) sublimation of the material from the source end (202) towards the growth end (204) under the temperature difference for a duration of 90-100 hours to obtain radiant light blue single crystal (C) at the nucleation sites (206) in the enclosure (200). The crystal exhibits superior degree of responsivity and detectivity along with thermal/electrical conductivity while used in photodetectors, thermoelectric, and electronic device application. Fig. 2

No. of Pages : 24 No. of Claims : 7

(54) Title of the invention : AI-ENHANCED CYBER SECURITY SOLUTIONS FOR PROTECTION AGAINST CYBER ATTACKS

(51) International classification :G06F0021550000, G06N0020000000, G06F0021570000, G06F0021560000, G06N0005040000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Akanksha Meshram Address of Applicant :Assistant Professor, Department of CSE AIML, Oriental Institute of Science and Technology, Bhopal, Madhya Pradesh, 462021, India ----- 2)Ritu Ranjani Singh 3)Swati Pandey 4)Sonal Chaudhary 5)Anamika Joshi 6)Sarika Khatarkar 7)Uma Vishwakarma Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Akanksha Meshram Address of Applicant :Assistant Professor, Department of CSE AIML, Oriental Institute of Science and Technology, Bhopal, Madhya Pradesh, 462021, India ----- 2)Ritu Ranjani Singh Address of Applicant :Assistant Professor, Department of CSE AIML, Oriental Institute of Science and Technology, Bhopal, Madhya Pradesh, 462021, India ----- 3)Swati Pandey Address of Applicant :Assistant Professor, Department of CSE DS, Oriental Institute of Science and Technology, Bhopal, Madhya Pradesh, 462021, India ----- 4)Sonal Chaudhary Address of Applicant :Assistant Professor, Department of CSE AIML, Oriental Institute of Science and Technology, Bhopal, Madhya Pradesh, 462021, India ----- 5)Anamika Joshi Address of Applicant :Assistant Professor, Department of CSE, Oriental Institute of Science and Technology, Bhopal, Madhya Pradesh, 462021, India ----- 6)Sarika Khatarkar Address of Applicant :Assistant Professor, Department of IT, Oriental Institute of Science and Technology, Bhopal, Madhya Pradesh, 462021, India ----- 7)Uma Vishwakarma Address of Applicant :Assistant Professor, Department of CSE AIML, Oriental Institute of Science and Technology, Bhopal, Madhya Pradesh, 462021, India -----

(57) Abstract :
ABSTRACT AI-ENHANCED CYBER SECURITY SOLUTIONS FOR PROTECTION AGAINST CYBER ATTACKS In response to the escalating challenges posed by dynamic and sophisticated cyber threats, this patent introduces an AI-enhanced cybersecurity solution designed to proactively detect, analyze, and mitigate potential risks. The system leverages advanced artificial intelligence technologies, including machine learning and dynamic behavioral analysis, to provide a comprehensive defense mechanism. The invention initiates with a robust data collection module, gathering information from diverse sources such as network traffic, system logs, and external threat intelligence feeds. Advanced feature extraction techniques are then employed to analyze the data, identifying patterns and potential indicators of compromise. At the heart of the system lies a machine learning model, continuously adapting to emerging threats through adaptive learning based on historical and real-time data. Dynamic behavioral analysis of network entities enhances the accuracy of threat detection, establishing baselines for normal behavior and promptly identifying anomalies. The system seamlessly integrates with external threat intelligence feeds, ensuring real-time updates on the latest threat indicators and vulnerabilities. Upon detecting potential threats, the cybersecurity solution triggers autonomous response mechanisms, dynamically adjusting security policies, isolating affected systems, and blocking malicious activities in real-time. A user-friendly interface provides security administrators with real-time insights, alerts, and recommended actions, facilitating efficient decision-making. The invention's scalability and versatility allow deployment across various digital environments, including networks, critical infrastructure, cloud platforms, and IoT ecosystems. It minimizes false positives through advanced validation mechanisms, ensuring that alerts are indicative of genuine security threats.

No. of Pages : 16 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421001729 A

(19) INDIA

(22) Date of filing of Application :09/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : METAHEURISTIC ASSISTED HYBRID DEEP LEARNING MODEL FOR COTTON DISEASE PREDICTION AN INTERNET OF THINGS BASED APPLICATION

(51) International classification :G06N0003080000, G06N0003040000, G06K0009620000, G06N0020200000, G06N0020000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Bhushan Vamanrao Patil Address of Applicant :C. S. No. 10/1/A, & 10/1/B, Plot no-18-A, Kazi Nagar, Shirpur, Dhule, Maharashtra, India - 425405 ----- ----- 2)Dr. Pravin Sahebrao Patil 3)Anish Pravin Patil 4)Punam Ravan Patil 5)Pratik Pravin Patil Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Bhushan Vamanrao Patil Address of Applicant :C. S. No. 10/1/A, & 10/1/B, Plot no-18-A, Kazi Nagar, Shirpur, Dhule, Maharashtra, India - 425405 ----- ----- 2)Dr. Pravin Sahebrao Patil Address of Applicant :Department of Electronics and Telecommunication Engineering, S. S. V. P. S. B. S. Deore College of Engineering, Deopur–Dhule, Maharashtra, India - 424005 ----- 3)Anish Pravin Patil Address of Applicant :Department of Electronics and Telecommunication Engineering, S. S. V. P. S. B. S. Deore College of Engineering, Deopur–Dhule, Maharashtra, India - 424005 ----- 4)Punam Ravan Patil Address of Applicant :Department of Computer Engineering R. C. Patel Institute of Technology, Shirpur, Dhule, Maharashtra, India - 425405 ----- 5)Pratik Pravin Patil Address of Applicant :Vellore Institute of Technology, Vellore, Tamil Nadu, India - 632014 -----

(57) Abstract :

The suggested model incorporates learning from several models, such as ResNet50, VGG16, and custom CNN. By combining all of the models and applying the ensemble approach, the Meta deep model generates a final model by learning from various models. Using our cotton dataset, many models, including custom CNN, VGG16, and ResNet50, were trained in order to apply the suggested model. Following the training of many models, stacked ensemble learning was used to merge the models, and a final model was put into use. The accuracy of classification was enhanced by the layered model.

No. of Pages : 21 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421001742 A

(19) INDIA

(22) Date of filing of Application :09/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : ENERGY-EFFICIENT DECOUPLED CONTROL FOR HIGH-POWER CONSTANT-VOLTAGE AND CONSTANT-CURRENT ARC WELDING PROCESSES

(51) International classification :B23K9/06, B23K9/09, B23K9/10, H02M1/00, H02M3/00, H02M3/335, H03K4/08, H03K7/08

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT Title: Energy-efficient decoupled control for high-power constant-voltage and constant-current arc welding processes. The present invention relates to an energy efficient decoupled control [100] for high power constant voltage and constant current arc welding processes using distinctly different control approaches or functions to take the advantages of constant-voltage and constant current process characteristics without needing any extra component (including power and filter) in the power control circuit, the control comprising Power transfer circuit [110], Fixed frequency generation, soft-starting, protection around a PWM controller, Mode specific independent PWM signal generator circuits, Saw-tooth signal generator [120], Feed forward control block circuit [130], and a robust control loop which is a PI control loop [140], all operatively connected.

No. of Pages : 23 No. of Claims : 10

(54) Title of the invention : NOVEL APPROACHES TO NANOSCALE SURFACE CHARACTERIZATION USING ATOMIC FORCE MICROSCOPY ENHANCEMENTS

(51) International classification :B82Y0035000000, G01Q0030040000, B82B0003000000, G01Q0060320000, G06N0003120000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

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(57) Abstract :
The proposed invention introduces groundbreaking enhancements to Atomic Force Microscopy (AFM), revolutionizing nanoscale surface characterization. By leveraging advanced machine learning algorithms, we achieve real-time data analysis, significantly improving AFM's measurement accuracy and speed. Our high-speed scanning mode addresses the issue of slow scanning speeds in conventional AFM, enabling rapid nanoscale imaging and property measurement. We seamlessly integrate AFM with complementary microscopy and spectroscopy techniques, offering a holistic understanding of nanomaterials by correlating surface properties with underlying chemical and structural characteristics. Our innovation minimizes tip-sample interactions, reducing sample damage and enhancing measurement reliability. It also facilitates AFM characterization in diverse environments, from liquids to gases, enabling the study of dynamic processes at the nanoscale. We provide automated tip calibration and maintenance methods, offer user-friendly software for streamlined operation, and enable 3D reconstruction of nanoscale surfaces. Our invention finds applications in biology, materials science, electronics, and beyond, promising to advance research and technology across multiple domains.

No. of Pages : 22 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :23/01/2024

(21) Application No.202421004629 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : MATERIAL HANDELING TRAY

(51) International classification :B65D1/34, B65D1/36
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Material handling tray apparatus. The appartus comprises of base plate (001). On the base plate (001) 2 pair of bush pin (002) is attached at each corner it is use to mount same type of other material handling tray. To the base plate (001) the 6 Job mounting rods (003) is connected on which job is placed after manufacturing. 1 pair of Handel (001A) which is attached to the base plate (001) to carry the tray from one place to another. Support bar tray (004) is connected to the base plate (001) to give support to the job mounting rod (003) under the load condition.

No. of Pages : 8 No. of Claims : 1

(54) Title of the invention : DEEP LEARNING-POWERED STEGANOGRAPHY DETECTION FOR HIDDEN DATA RECOVERY

(51) International classification :G06N0003040000, G06N0003080000, G06T0001000000, G10L0019018000, G16H0050200000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :
ABSTRACT DEEP LEARNING-POWERED STEGANOGRAPHY DETECTION FOR HIDDEN DATA RECOVERY The invention titled Deep Learning-Powered Steganography Detection for Hidden Data Recovery in Digital Forensics presents a pioneering solution that harnesses the capabilities of advanced deep learning algorithms to address the challenges posed by covert information concealment techniques in the realm of digital forensics. The escalating use of steganography for covert communication and data concealment has presented significant challenges to traditional digital forensic methodologies. Existing steganalysis approaches often struggle to adapt to evolving concealment techniques, necessitating a more sophisticated and adaptable solution. The proposed invention seeks to bridge this gap by integrating state-of-the-art deep learning techniques into the steganography detection and hidden data recovery processes. The primary objectives of the invention include enhancing steganography detection accuracy, ensuring adaptability to diverse digital content types, and facilitating the recovery of hidden data for forensic analysis. Through the integration of advanced neural network architectures and tailored algorithms, the system aims to revolutionize the digital forensics landscape. The invention comprises a meticulously designed system with key components, beginning with a preprocessing module that normalizes input data and extracts relevant features critical for subsequent analysis. The core of the system lies in the deep learning model, utilizing a deep convolutional neural network (CNN) for image-based steganography detection and a recurrent neural network (RNN) for time-series data, such as audio files. The model is trained on a comprehensive dataset curated specifically for digital forensics applications, ensuring its effectiveness across diverse scenarios. The detection algorithm processes the model's output, employing probability analysis and adaptive thresholding to quantitatively measure the likelihood of hidden data presence. The hidden data recovery module utilizes a reconstruction algorithm for positively identified steganographic content, presenting the recovered data in a format conducive to forensic analysis and legal proceedings.

No. of Pages : 16 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421004780 A

(19) INDIA

(22) Date of filing of Application :24/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN IOT BASED SMART FITNESS SOLUTION

(51) International classification :A61B0005110000, A63B0071060000, A63B0024000000, A61B0005000000, G09B0005020000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Sumit Pradeep Kolpe Address of Applicant :Near Jain Temple , Chati Gali Mohol Dist.Solapur-413213 ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Sumit Pradeep Kolpe Address of Applicant :Near Jain Temple , Chati Gali Mohol Dist.Solapur-413213 ----- 2)Nupur Pushkar Bhatkhande Address of Applicant :Sai prasad apt, flat no. 5A, tanaji nagar chinchwad pune-411033 ----- 3)Shrunkhal Pandurang Lokhande Address of Applicant :Yash Nagar Near Ashok Vatika tal.Warora dist.Chandrapur- 442907 ----- 4)Prayag Ravindra Adage Address of Applicant :19-B block Konark Nagar Vijaypur Road, Jule Solapur-413004 ----- 5)Dr.Araddhana Deshmukh Address of Applicant :Symbiosis Skill and Professional University, Kiwale, Pune, 412101 ----- 6)Manisha Patil Address of Applicant :28/107 Ved Vihar near Ved Bhavan Chandani Chowk Kothrud Pune 411038 ----- 7)Dr. Kirti Wanjale Address of Applicant :Vishwakarma Institute of Information Technology, Sr. No. 2/3/4 Pune 411048 -----

(57) Abstract :

ABSTRACT The present invention relates to an IoT based smart fitness solution. The smart fitness system (100) comprises a plurality of smart fitness devices, a connectivity module, a central processing and analysis module, a personalization module, a user interface module, a security and privacy module, an integration module, and a notification module. The plurality of smart fitness devices, each equipped with biometric sensors, accelerometers, and gyroscopes. The plurality of smart fitness devices are configured to collect data related to user physical activity. The connectivity module is facilitating communication between the smart fitness devices and a centralized platform using Internet of Things (IoT) protocols, ensuring secure and reliable data transfer. The user interface module are providing a user-friendly interface accessible through mobile applications, web portals, or other devices, allowing users to interact with the system (100), track fitness progress, set goals, and receive real-time feedback.

No. of Pages : 12 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :24/01/2024

(21) Application No.202421004922 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : HIGH EFFICIENCY SOLAR PANEL ARRAY WITH SELF CLEANING MECHANISM

(51) International classification :B08B13/00, F24S40/20, H02S40/10		(71)Name of Applicant : 1)ATS Sanjay Bhokare Group of Institutes, Miraj Address of Applicant :ATS Sanjay Bhokare Group of Institutes, Miraj director@sbgimiraj.org Miraj -----
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(57) Abstract :

7. ABSTRACT The High Efficiency Solar Panel Array with Self Cleaning Mechanism offers a novel and efficient solution to the challenges associated with the maintenance of solar panel arrays. This invention is expected to contribute significantly to the field of solar energy generation by improving the overall performance and longevity of solar panel installations. Solar panels are widely used to harness solar energy for electricity generation. However, over time, accumulated dust, debris, and other contaminants on the solar panels can significantly reduce their efficiency. Cleaning such arrays can be time-consuming, costly, and may require manual intervention. Therefore, there is a need for an automated and efficient self-cleaning mechanism for solar panel arrays.

No. of Pages : 7 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :24/01/2024

(21) Application No.202421004923 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : AUTONOMOUS AGRICULTURAL DRONE FOR PRECISION FARMING

(51) International classification	:A01B79/00, A01M7/00, B64D1/18	(71)Name of Applicant : 1)ATS Sanjay Bhokare Group of Institutes, Miraj Address of Applicant :ATS Sanjay Bhokare Group of Institutes, Miraj director@sbgimiraj.org Miraj ----- 2)Dr.M.A.Bote 3)Dr.Mrs.S.N.Hublikar 4)Prof.A.T.Kadam 5)Prof.A.G.Koparde Name of Applicant : NA Address of Applicant : NA
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(57) Abstract :

7. ABSTRACT The Autonomous Agricultural Drone for Precision Farming presents a novel approach to modernize and enhance agricultural practices. By combining advanced sensing technologies with autonomous navigation and data analytics, this invention contributes to sustainable and efficient precision farming. The present invention relates to agricultural technology, specifically to autonomous drones designed for precision farming applications. The disclosed system integrates advanced sensing, navigation, and data processing technologies to optimize agricultural operations. The Autonomous Agricultural Drone for Precision Farming is a cutting-edge unmanned aerial vehicle equipped with a range of sensors, communication modules, and AI-powered algorithms. The drone autonomously navigates through farmland, collecting and analyzing data related to soil health, crop status, and environmental conditions. The collected information is then used to generate actionable insights for farmers, enabling precise decision-making in crop management.

No. of Pages : 7 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :24/01/2024

(21) Application No.202421004932 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN IOT-BASED PORTABLE HANDHELD DEVICE FOR CROP HEALTH MEASUREMENT

(51) International classification :G06Q0050020000, G06N0020000000, G06Q0010100000, G06Q0010060000, G01N0033000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

An IoT-based portable handheld device for crop health measurement is described herein. The device employs a sensor module to collect real-time data on soil conditions, crop health, and environmental factors. Utilizing machine learning algorithms, the processing unit analyzes this data to generate precise fertilizer recommendations, continually improving based on historical and local conditions. The device's user-friendly display interface presents actionable insights, facilitating informed decision-making for farmers. With wireless connectivity and geo-tagging capabilities, this invention aims to optimize agricultural practices, ensuring sustainable crop growth, resource conservation, and contributing to overall agricultural productivity.

No. of Pages : 12 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421005170 A

(19) INDIA

(22) Date of filing of Application :25/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : FOLDABLE RECHARGEABLE POLARIZED ANTI-SLEEP EYEWEAR FOR DRIVERS

(51) International classification :G02C0007120000, G08B0021060000, G02C0007100000, G02C0011000000, G06F0009440100

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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- -----

(57) Abstract :

A driver assisting equipment and a method having warning function for alerting a driver of drowsiness while driving any motor vehicle, equipment continuously keeps monitoring the drowsiness of driver, an infrared sensor is used in the equipment, the sensor keeps a track of the eyelids shutting and opening cycles as, a closed eyelid of 2.5 sec is considered as drowsiness, as soon as drowsiness of driver is detected the alarm is turned on and keeps creating sound until the driver opens eyes. The rechargeable feature of the equipment provides power to the equipment it gives a decent battery backup of 8-10 hours on moderate charging. Drawing :

No. of Pages : 8 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421005221 A

(19) INDIA

(22) Date of filing of Application :25/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : METHOD AND SYSTEM OF BORROW TO PAY

(51) International classification :G06F0009320000, G06F0009500000, E02F0005280000, H04N0007167000, G06F0012020000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

METHOD and SYSTEM of BORROW TO PAY disclosed here in this disclosure relates to the field of money borrowing system related to financial sector. This method provides alternate gateway through mobile application which is user friendly and quick solution to get small amount of money within the community contact of the registered member. This system gives liberty to user to select the contact which may help him in needful time of money and minimize the chance of rejection of such loan through conventional banking or lending app system. This system gives additional income to co-member who gives money to registered member for their given saving money.

No. of Pages : 7 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421005318 A

(19) INDIA

(22) Date of filing of Application :25/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : POMEGRANATE AND EMMER COOKIES AND THEIR PREPARATION

(51) International classification :A61K0036185000, H04L0067020000, H04L0067306000, G06F0016957000, G06Q0030020000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT Title: POMEGRANATE AND EMMER COOKIES AND THEIR PREPARATION The present invention relates to the Pomegranate and Emmer Cookies. These cookies are sugar free. The invention further provides formulation of Pomegranate and Emmer Cookies and its process of preparation. This distinctive cookie not only results in a flavorful treat but also caters to the growing demand for healthier confectionery options, aligning with the preferences of health-conscious consumers

No. of Pages : 15 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :25/01/2024

(21) Application No.202421005353 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD FOR NATURAL LANGUAGE PROCESSING WITH DEEP LEARNING

(51) International classification :G06N0003080000, G06N0003040000, G06F0040300000, G06F0016350000, G06K0009620000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT SYSTEM AND METHOD FOR NATURAL LANGUAGE PROCESSING WITH DEEP LEARNING The growing field of natural language processing has become an integral part of various technological applications, from virtual assistants to chat bots. Traditional methods of processing natural language have relied on rule-based systems, which often struggle with the complexity and nuances of human language. To tackle this challenge, a new approach has emerged: deep learning. This method utilizes artificial neural networks to process and analyze natural language data, allowing for more efficient and accurate results. Our system and method takes this concept even further by incorporating a combination of deep learning algorithms and techniques to provide a more comprehensive and effective natural language processing solution. Our system is designed to train on large datasets, allowing it to learn the intricate patterns and structures within language. It also has the ability to continuously improve and adapt to new data, making it highly flexible and robust. With deep learning capabilities, our system can accurately perform tasks such as language translation, sentiment analysis, and text classification. Our method also incorporates state-of-the-art natural language processing techniques, such as word embeddings and recurrent neural networks, to further enhance the system's performance. These techniques enable the system to understand the context and meaning behind words, sentences, and documents, rather than just relying on surface-level patterns

No. of Pages : 9 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421003825 A

(19) INDIA

(22) Date of filing of Application :19/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : STATISTICAL OPTIMIZATION OF RENDERING ALGORITHMS IN HIGH-DEFINITION COMPUTER ANIMATION

(51) International classification :G06T0003400000, G06Q0050260000, G06T0019000000, G06T0017000000, G06Q0010000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT [500] Our Invention Statistical Optimization of Rendering Algorithms in High-Definition Computer Animation is urban informatization is referred to as a digital city. In other words, by creating infrastructure platforms like broadband multimedia information networks and geographic information systems, integrating urban information resources, and establishing e-government, e-commerce, labor, social insurance, and other information communities, the digital city will progressively realize the informatization of the urban national economy and society. This will put the city in an unbeatable position in the information age competition. A significant component of the enormous undertaking of building a virtual city is the use of virtual reality technology for creating an urban three-dimensional landscape, or virtual city building. The primary focus of this study is the virtual reality-based digital city 3D creative landscape rendering and optimization method. Image stitching technique is used in the article. In the CAD floor layout, remove any extraneous furniture and attempt to preserve only the wall framework. For 3DMAX modeling, export drawings and store them as dwg files. In the case of adjacent overlapping photos, image matching is used to identify the common features of the overlapping regions. This allows for the calculation of unity across photographs collected at various shooting locations and viewing orientations with a narrow angle of intersection. After obtaining the picture coordinate system, determine the overlap range for each splicing direction.

No. of Pages : 10 No. of Claims : 7

(54) Title of the invention : INVESTIGATION OF SUSTAINABLE MATERIALS IN THE STONE COLUMN FOR GROUND IMPROVEMENT

(51) International classification	:E02D0003120000, C04B0028040000, C12M0001000000, B32B0027120000, E02D0003080000	(71)Name of Applicant : 1)Nishakha Krushnaji Mhaisgawli Address of Applicant :MAHATMA EDUCATION SOCIETY’S PILLAI HOC COLLEGE OF ENGINEERING &TECHNOLOGY RASAYANI TALUKA PANVEL, DIST, NAVI MUMBAI, MAHARASHTRA 410207, INDIA. Flat No 18, Building H1 Spaghetti Housing Society Sect - 15, Kharghar, Navi Mumbai, 410210. (Maharashtra). Mumbai -----
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(57) Abstract :
Abstract The utilization of sustainable materials in ground improvement techniques, specifically in stone columns, has emerged as a significant area of research within geotechnical engineering. This paper encapsulates the essence of an investigation focused on the integration of environmentally friendly materials to enhance the sustainability of ground improvement practices. The study explores the feasibility and efficacy of substituting traditional materials in stone columns with sustainable alternatives. The primary objective is to assess the environmental impact and long-term performance of these materials in ground improvement applications. In this Paper sustainable materials uses, such as Jarosite waste and Coal mine waste materials, are considered for their potential to replace conventional stone column constituents The investigation employs a comprehensive methodology, incorporating laboratory testing, numerical simulations, and field-scale experiments to evaluate the mechanical, hydraulic, and environmental properties of the sustainable stone columns. The research also delves into the economic aspects, analysing the cost-effectiveness and feasibility of implementing these alternative materials in practical engineering scenarios The outcomes of this investigation are expected to contribute valuable insights to the geotechnical engineering community, offering a sustainable approach to ground improvement practices.

No. of Pages : 10 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421003235 A

(19) INDIA

(22) Date of filing of Application :17/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : MICROELECTROMECHANICAL (MEMS) CANTILEVER BIOSENSOR SYSTEM

(51) International classification :G01N0033543000, B01L0003000000, G02B0026080000, G01N0035000000, B81B0003000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr. Bali Arun Thorat Address of Applicant :S.B.E.S. College of Science, Chhatrapati Sambhaji Nagar - 431001, Maharashtra, India Chhatrapati Sambhaji ----- 2)Dr. Mukti Jadhav 3)Dr. Ramesh Manza 4)Dr. Pramodini Dange 5)Dr. Gangadevi Bedke Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Bali Arun Thorat Address of Applicant :S.B.E.S. College of Science, Chhatrapati Sambhaji Nagar - 431001, Maharashtra, India Chhatrapati Sambhaji ----- 2)Dr. Mukti Jadhav Address of Applicant :Shri. Shivaji Science and Arts College, Chikhali - 443201, Maharashtra, India Chikhali ----- - 3)Dr. Ramesh Manza Address of Applicant :Dr. BAMU University, Chhatrapati Sambhaji Nagar - 431004, Maharashtra, India Chhatrapati Sambhaji ----- 4)Dr. Pramodini Dange Address of Applicant :Sinhgad Institute of Business Administration and Research, Pune - 411048, Maharashtra, India Pune ----- 5)Dr. Gangadevi Bedke Address of Applicant :Late Pandharinath Patil Institute of Management studies and information Technology, Chhatrapati Sambhaji Nagar - 431001, Maharashtra, India Chhatrapati Sambhaji -----

(57) Abstract :

The present invention relates to a microelectromechanical (MEMS) cantilever biosensor system (100) for detecting and/or measuring biological components in a user sample comprising a non-displaceable sensor base (105), a displaceable cantilever beam (110), one or more cantilevers (115), one or more sample holders (120), a transducer element (125), a signal processing unit (130) and a display unit (135). In particular, the user sample containing one or more antigens may be placed and/or poured on the one or more sample holders (120) by a user. Moreover, the one or more antigens may interact with the one or more antibodies on the one or more cantilevers (115). Furthermore, specific binding and/or specific interactions of the one or more antigens and the one or more antibodies may generate mechanical stress causing displacement and/or deflection of the one or more cantilevers (115). Fig. 1

No. of Pages : 26 No. of Claims : 10

(54) Title of the invention : METHOD AND SYSTEM FOR DETERMINING CONCRETE CONSTITUENTS OF HARDENED CONCRETE USING IMAGE ANALYSIS APPROACH

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	:G06T0007000000, H04N0005770000, G03B0017560000, G06T0007136000, G01N0021170000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)MEROOL VAKIL Address of Applicant :School of Engineering and Technology, National Forensic Sciences University, Police Bhavan Rd, Sector 9, Gandhinagar, Gujarat-382007, India . ----- 2)SHIVANG JAYSWAL 3)ASHUTOSH DHAURYA Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)MEROOL VAKIL Address of Applicant :School of Engineering and Technology, National Forensic Sciences University, Police Bhavan Rd, Sector 9, Gandhinagar, Gujarat-382007, India . ----- 2)SHIVANG JAYSWAL Address of Applicant :School of Engineering and Technology, National Forensic Sciences University, Police Bhavan Rd, Sector 9, Gandhinagar, Gujarat-382007, India . ----- 3)ASHUTOSH DHAURYA Address of Applicant :School of Engineering and Technology, National Forensic Sciences University, Police Bhavan Rd, Sector 9, Gandhinagar, Gujarat-382007, India . -----

(57) Abstract :

Disclosed herein is a method and system for determining proportions of various concrete constituents of a hardened concrete block through a reliable, user-friendly, and cost-effective image analysis technique. The method employs an imaging device (100) comprising a chamber (102) having a top end (102a) holding a camera (104), a bottom end (102b) holding a sample (S), and a reflective inner surface (102c) on which are disposed non-dimmable LED lights (106). A sample surface is prepared by removal of mortar layer on the concrete block, followed by polishing and transparent material coating. The sample images (SI) are captured by the camera and transmitted to a processor (200) integrated with an image processing module (202). The processor (200) is configured to crop the images into defined dimension; convert them from RGB format to greyscale format; quantify concrete constituents in area fraction based on comparisons of grayscale intensities of the greyscale images with grayscale intensity threshold values for fine aggregate and coarse aggregate, and for cement by subtracting coarse and fine aggregate's area from total area; and display the quantified area fraction values of the concrete constituents in a user interface (300). Fig. 2

No. of Pages : 23 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421003751 A

(19) INDIA

(22) Date of filing of Application :19/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SMART ATTENDANCE SYSTEM

(51) International classification :G07C0001100000, G06Q0050200000, G06Q0010100000, G06Q0010060000, G07C0001140000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention aims to design an efficient way to record and maintain student attendance data that will overcome the drawbacks of the traditional or manual attendance system. Attendance Management System is a hardware along with software-oriented mechanism developed for daily student attendance in schools, colleges and institutes. It facilitates to access the attendance information of a particular student in a particular class and also to the faculties to access the data of the entire class. A smart attendance system enables setting up the attendance workflows and maintaining a proper validation of students.

No. of Pages : 15 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :19/01/2024

(21) Application No.202421003818 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : ENSEMBLE NEURAL NETWORKS FOR IMPROVED ACCURACY AND ROBUSTNESS IN PATTERN RECOGNITION

(51) International classification :G06N0003040000, G06N0003080000, G06K0009620000, A61B0008080000, G06T0005500000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
Abstract: The present invention relates to the field of pattern recognition, specifically focusing on enhancing accuracy and robustness through the integration of ensemble neural networks. The disclosed technology addresses the limitations of conventional single neural network models by combining multiple networks to achieve superior performance in recognizing complex patterns.

No. of Pages : 5 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421003870 A

(19) INDIA

(22) Date of filing of Application :19/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : IMPROVED MOBILITY RATCHET MECHANISM FOR WHEELCHAIRS DESIGNED FOR INDIVIDUALS WITH DISABILITIES.

(51) International classification :A61G0005100000, H04W0024020000, B60P0007080000, H02K0007180000, H01L0021762000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
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(62) Divisional to Application Number :NA
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(57) Abstract :

The provided paragraph outlines three innovative features incorporating a ratchet mechanism in a wheelchair design. Firstly, a ratchet mechanism is employed at the backrest to facilitate the conversion of the wheelchair from 90 to 180 degrees and into a stretcher. Secondly, a similar mechanism is utilized at the footrest for converting the wheelchair into different positions, including a stretcher. Lastly, the incorporation of a ratchet mechanism in the tri-wheel assembly aims to enhance the wheelchair's functionality, enabling effortless climbing of stairs. These design elements collectively contribute to a versatile and efficient wheelchair system with enhanced adaptability and mobility features. These three innovations collectively showcase a wheelchair design that prioritizes adaptability, versatility, and enhanced mobility. The integration of ratchet mechanisms in strategic components of the wheelchair not only allows for easy adjustments but also addresses specific challenges faced by wheelchair users, ultimately aiming to improve their overall mobility and quality of life. This review succinctly outlines various innovations implemented in conventional wheelchairs for individuals with physical disabilities. The primary objective is to develop a versatile wheelchair utilizing a ratchet mechanism and a stair-climbing wheel. The project predominantly emphasizes the proposed design concept, culminating in a discussion on the physical working model created for the suggested design solution. The utilization of a ratchet mechanism facilitates the adjustment of the backrest to any position within the range of 90 degrees to 180 degrees. A comparative analysis is conducted between the traditional wheelchair and the newly proposed multipurpose wheelchair machine, which exhibits the capability to perform multiple concurrent operations and presents numerous advantages. Since the early 2000s, wheelchair innovations have captivated the interest of medical equipment engineers. While some modifications may incur higher costs, others prove to be valuable, and a few may encounter shortcomings. This project incorporates a wheelchair with a specialized stair-climbing wheel arrangement, significantly easing the challenges faced by individuals with disabilities. The wheelchair's designated surfaces include staircases, rough terrains, and small-sized obstacles. Each component of the wheelchair is meticulously designed to withstand elevated stress and load, minimizing the likelihood of failure.

No. of Pages : 14 No. of Claims : 3

(54) Title of the invention : DOSING PUMP SYSTEM FOR PRECISE MEDICATION DELIVERY IN POULTRY AND LIVESTOCK FARMING

(51) International classification :A01K0007020000, G06Q0050020000, A01K0029000000, C02F0103200000, G16H0040670000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Vivek Ramdas Desale Address of Applicant :Reliable Hi-Tech Industries, S. No. 28, Pl. 7, Sai Industrial Estate, MIDC Ambad, Near 132 kv Sub Station, Nashik, Maharashtra – 422010, India Nashik ----- ----- 2)Sandeep Kumar Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Vivek Ramdas Desale Address of Applicant :Reliable Hi-Tech Industries, S. No. 28, Pl. 7, Sai Industrial Estate, MIDC Ambad, Near 132 kv Sub Station, Nashik, Maharashtra – 422010, India Nashik ----- 2)Sandeep Kumar Address of Applicant :Room No. 403, Satish Dhawan Block, Mechanical Engineering Department, IIT Ropar, Punjab – 140001, India Rupnagar -----

(57) Abstract :
The Dosemake dosing pump system represents a revolutionary advancement in livestock farming, providing a comprehensive solution for precise medication delivery. Comprising innovative components such as the Dosemake Inlet, Tank Empty feedback system, and precision-engineered valves, the system ensures proportional and uniform administration of medications, nutrients, and supplements to poultry and other livestock through the water supply. Addressing challenges such as degradation, wastage, and maintenance, Dosemake offers a user-friendly, cost-effective, and environmentally sustainable approach. The system's adaptability to various livestock sectors, integration with smart farming technologies, and water-efficient design position it as a cutting-edge solution, setting a new standard for medication administration in modern agriculture. Dosemake signifies a paradigm shift, prioritizing the health, well-being, and productivity of livestock while enhancing operational efficiency for farmers.

No. of Pages : 20 No. of Claims : 13

(54) Title of the invention : A QUANTUM WATERMARKING METHOD AND SYSTEM FOR PROTECTING DIGITAL CONTENT

(51) International classification :G06T0001000000, H04N0001320000, G06Q0020380000, H04L0009080000, H04N0019467000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Sagar Dhande Address of Applicant :A401, Dreams Rhythm Society, near Bavdhan talathi office, Bavdhan, Pune - 411021 Pune ----- ----- 2)Vaidehi Gawande 3)Lalit Kumar Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Sagar Dhande Address of Applicant :A401, Dreams Rhythm Society, near Bavdhan talathi office, Bavdhan, Pune - 411021 Pune ----- ----- 2)Vaidehi Gawande Address of Applicant :H No. 34, Paras Nagari, Waghapur Road, near Vishwabharti Vidya mandir school, Yavatmal - 445001, India Yavatmal ----- ----- 3)Lalit Kumar Address of Applicant :s/o Sh Rattan Singh, VPO Chaudriwas, near Gov. Sen.Sec.School, Hisar, Haryana - 125001 Hisar ----- -----

(57) Abstract :
The disclosed quantum watermarking system provides enhanced protection for digital content. It incorporates a primary watermark embedding unit, utilizing singular value decomposition for robust watermarking, and an expansion module to maintain visual quality during a dimension change in the secondary watermark image. The system further integrates a dynamic chaos matrix preparation module, employing a tent map and scrambling, for embedding into the least significant bits (LSB) of a cover image. An LSB substitution module robustly embeds a scrambled watermark using an LSB substitution technique, with multiple pixel modifications for increased security. The inclusion of a communication interface facilitates secure key sharing. Additionally, an extraction module efficiently retrieves the original cover image and watermark by applying reverse operations, including the reversal of the C-NOT operation, using a shared secret key. This comprehensive quantum watermarking system ensures robust protection and secure extraction of watermarked content.

No. of Pages : 25 No. of Claims : 10

(54) Title of the invention : STUDY AND DEVELOPMENT OF CONTENT BASED IMAGE RETRIEVAL (CBIR) USING MULTIPLE FEATURES FOR ANDROID PLATFORM

(51) International classification :G06F0016583000, G06T0007450000, H04N0011040000, H04N0001640000, H04N0009888000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

STUDY AND DEVELOPMENT OF CONTENT BASED IMAGE RETRIEVAL (CBIR) USING MULTIPLE FEATURES FOR ANDROID PLATFORM

ABSTRACT: Nearly all mobile phones in today's globe run on the Android operating system. Apple's iOS, Microsoft's Windows, Google's Android, and Blackberry's operating systems are all supported by modern cellphones. Smartphones currently provide a variety of services, including the internet, email, infrared or Bluetooth connection, contact and note keeping, and multimedia. Google is primarily responsible for the development of Android. In this project, we are extracting photos from mobile phones using the Android operating system. We have introduced the Android platform in this article. This is a method for improving picture retrieval performance on the Android platform. The technology can detect a picture and then produce a voice as the image's name. In the image retrieval method, content-based picture retrieval is crucial. Color coherence vector is used to extract colour features (CCV). Each pixel in the searched image is assigned to a colour bucket, which determines whether it is coherent or not. With each colour, a colour coherent vector holds the number of coherent vs incoherent pixels. CCVs give better differences than colour histograms by separating coherent pixels from incoherent ones. Co-occurrence matrix is used to extract texture features. Text is converted into voice using the Dspeech engine. The work provided here primarily focuses on efficient CBIR approaches leveraging proposed methodologies for representing and transforming the visual content of pictures into feature vectors. Employing a test bed of 1000 variable size photos dispersed over 11 image categories, the suggested CBIR approaches using Colour, Transformed Image, Texture, and Shape content were shown to be better and quicker. The recommended methodologies of employing 'image colour averages' and 'block truncation coding' for CBIR are proposed in consideration of colour content as a feature. Image averaging algorithms work by taking averages of the image's colour content, which may be thought of as a feature vector for image retrieval. The use of colour averaging algorithms aids in the development of quicker and more accurate picture retrieval techniques. Among these colour averaging based CBIR approaches, the FDM has been shown to provide the best results. Picture tiling is the method involved with parting a picture into equivalent, non-covering square areas. Variety averaging strategies (line mean, section mean, forward slanting mean, in reverse inclining mean, line and segment mean, forward and in reverse askew mean, line and section mean, forward and in reverse corner to corner mean, line and segment mean, forward and in reverse slanting mean, column and section mean, forward & backward diagonal mean, row & column mean, forward & backward diagonal mean, row & column mean, forward & backward diagonal mean, row & column mean, forward It has been discovered that, with the exception of BDM, picture tiling does not aid performance improvement in other colour averaging based CBIR algorithms. Then, utilising the original and even portion of the image, augmentation of colour averaging based CBIR approaches is provided. The suggested colour averaging based CBIR algorithms perform better in the original with even picture component (original + even). The fundamental disadvantage of colour averaging CBIR, the reliance of feature vector size on picture size, led to the introduction of Block Truncation Coding (BTC) in image retrieval for feature extraction. The BTC-CBIR is then extended to ten different colour spaces (RGB, HSV, XYZ, HSI, rgb, Kekre's LUV, YCbCr, YUV, YIQ, Kekre's YCgCb), with the result that Kekre's LUV delivers the greatest performance and all luminance-chrominance colour spaces (Kekre's LUV, YCbCr (RGB, HSV, XYZ, HSI, rgb). Image tiling's influence on BTC-based image retrieval is investigated, and multilayer BTC for image retrieval is proposed. With each increasing level of BTC, it has been discovered that Multilevel BTC aids in performance enhancement. 'Picture averaging' and 'block truncation coding' are two approaches to feature vector creation used in this paper to offer image retrieval strategies based on colour content. The chapter goes over some fundamentals including colour mean calculation and block truncation coding theory. The suggested CBIR approaches are then developed using experimental data and observational findings. The performance of suggested CBIR algorithms is also improved by picture tiling and 10 different colour spaces. Structural, statistical, and multi-resolution filtering are the three basic types of texture representation approaches. Then, employing these three texture representation methodologies, fresh image retrieval strategies based on picture texture content are suggested.

No. of Pages : 12 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :19/01/2024

(21) Application No.202421004087 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN AUTOMATIC ANIMAL FEEDING APPARATUS

(51) International classification :A01K0005020000, A01K0005010000, A01K0061850000, G07F0017000000, B23P0019000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :

The present invention provides an automatic animal feeding apparatus which comprises an image capturing module for capturing images of an animal nearby the said feeder; a processing unit for processing and analyzing the captured images; two or more food storage containers for dispensing stored food; two or more slides preventing dispensing of food at multiple times; a power supplying battery; two or more feeding bowls for receiving dispensed food; servo motors; and a wireless transmission module for sending notification onto the user device. The present invention provides a solution for feeding different kinds of animals like cats, dogs or similar. The present invention firstly identifies types of animal surrounding nearby the said feeder and dispenses selected amount of food into the said feeding bowl and prevents dispensing of food during non selected time slot or when the animal visits the feeder multiple time as so to prevent overeating.

No. of Pages : 16 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421004135 A

(19) INDIA

(22) Date of filing of Application :20/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A FLUORESCENCE DEVICE FOR ORAL CANCER

(51) International classification :A61B0005000000, G01N0033574000, G01N0021640000, A61B0001240000, A61B0001060000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Title: A Fluorescence Device for Oral Cancer A fluorescence device for oral cancer consist of portable device of optical spectroscopy characterized in that software, hardware, light source, touch screen and battery effectively analysed fluorescence and reflectance of oral cavity tissues to detect pre cancerous and cancerous lesions.

No. of Pages : 13 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421004137 A

(19) INDIA

(22) Date of filing of Application :20/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A FLUORESCENCE IMAGING TOOL FOR ORAL CAVITY

(51) International classification :A61B0005000000, G01N0021640000, A61B0001040000, A61B0005145000, G16H0050200000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Title: A fluorescence imaging tool for oral cavity The present portable fluorescence image tool preferably real time assess oral cavity in situ, non invasively utilizes desired wavelength light to produce fluorescence emitted through oral cavity tissues detected and identified using software, further signify the economical benefit due to low costing configuration can be beneficial for clinical visual assessment of oral cavity preferably oral lesions, oral cancers, early cancers or pre-cancerous conditions in patients effectively in future

No. of Pages : 14 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421004138 A

(19) INDIA

(22) Date of filing of Application :20/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A FLUORESCENCE MICROSCOPY DEVICE FOR TB DETECTION

(51) International classification :G02B0021160000, G01N0021640000, G01N0001310000, G02B0021360000, G02B0021000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Title: A Fluorescence Microscopy Device for TB Detection A device for detecting TB comprises a portable optical device of size 26.3 cm x 13.5 cm x 10.5 cm characterized in that a Graphic User Interface (GUI) software; a hardware; a blue light source; a battery with two USB ports, herein a patients sputum smeared on a microscope glass slide, staining the glass slide with appropriate fluorescent dye like Auramine O and illuminating it with blue light and automatically counted the mycobacterium tuberculi bacteria effectively and efficiently. The device is economical and user friendly compare to conventional fluorescence microscope.

No. of Pages : 13 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :20/01/2024

(21) Application No.202421004160 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : MIDGET SMART CABINET

(51) International classification :G06F0003041000, G06F0003044000, E05B0047000000, A47F0003060000, A47B0088400000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Designing a compact storage solution for organizing small electrical components within limited space can be quite challenging. However, with the introduction of the MIDGET SMART CABINET and its innovative SMART DRAWER system, we have successfully addressed this challenge. The SMART DRAWER feature eliminates the need for manual effort in organizing the cabinet's contents by incorporating an automated rotation mechanism for its stationary drawers. This system is powered and controlled by an Arduino, which is seamlessly integrated with a touch sensor and a gear motor. The coordination between the gear motor and the touch sensor facilitates the rotation of the shaft to which the drawers are mounted. Upon touching the sensor, the motor initiates the rotation of the shaft, causing the drawers to move accordingly. Once the first set of drawers aligns with the hollow portion at the front, the touch sensor is disengaged, and the motor ceases its rotation. This intelligent automation not only streamlines the storage process but also ensures precise alignment for easy access to the cabinet's contents.

No. of Pages : 18 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421004203 A

(19) INDIA

(22) Date of filing of Application :20/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN IMPROVED SYSTEM AND METHOD FOR DEHYDRATION OF EDIBLE PRODUCTS

(51) International classification :A61B0005110000, B24B0009140000, F17C0013020000, F02N0011100000, B60W0030120000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Embodiments of the present invention discloses an improved system and method for dehydration of edible products which comprises of box, plank, compartments, holes, lens, processing unit, one or more sensors, battery, display unit, one or more motors, one or more fans. The said one or more sensors, battery, display unit, one or more motors, one or more fans are operably connected to the processor wherein, the dehydration process of edible products starts with the increasing of heat inside the chambers either by means of the plurality of lens or by means of the heating rod, and upon increasing of heat inside the chambers, the processing unit automatically turns ON the first set of one or more fans attached to the wall adjacent, and one or more sensors configured senses the temperature inside the chamber and transmits a plurality of information to the processor, and the processor in response the information relating to temperature and humidity, displays the same on the display unit connected to the processor, and if the sensed temperature is below 75 degrees Celsius, the processing unit automatically turns on the second set of one or more fans, and turns off heating rod or turns the plurality of lens to 90 degrees and the one or more sensors rechecks the temperature inside the chamber, and if the edible products are dehydrated, the process of drying ejects.

No. of Pages : 19 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421004205 A

(19) INDIA

(22) Date of filing of Application :21/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : NOVEL 4-PHENOXYPYRROLO[2,1-F][1,2,4]TRIAZINE DERIVATIVES AS ANTI-CANCER AGENTS

(51) International classification :A61P0035000000, A61P0025140000, A61P0025180000, A61P0025160000, A61P0025060000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention relates to novel 4-phenoxyppyrolo[2,1-f][1,2,4]triazine derivatives of compound of Formula I as described herein as anti-cancer agents and process for their preparation. The present invention particularly relates to novel 4-phenoxyppyrolo[2,1-f][1,2,4]triazine derivatives of compound of Formula I and their composition to treat, prevent and/or manage cancer.

No. of Pages : 38 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :21/01/2024

(21) Application No.202421004212 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : ANTIOXIDANT HERBAL FORMULATIONS FOR DIABETES PREVENTION

(51) International classification :A61P0003100000, A61K0039000000, A61P0035000000, A61P0039060000, A61P0001080000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

This innovation encompasses a novel herbal formulation, meticulously composed of antioxidant-rich herbs, demonstrating significant efficacy in combating oxidative stress, reducing inflammation, and improving insulin sensitivity. The invention further comprises methods for the preparation, administration, and monitoring of these herbal formulations, offering a holistic, sustainable, and personalized approach to diabetes prevention. Leveraging the renewable nature of herbs, this approach not only addresses the escalating global diabetes epidemic but also contributes to eco-friendly healthcare practices. Moreover, the invention recognizes the increasing demand for natural therapies, presenting a gentler alternative to conventional pharmaceuticals, with reduced side effects. With interdisciplinary collaboration at its core, this field of invention seamlessly integrates traditional herbal knowledge with modern scientific expertise, representing a promising frontier in the pursuit of improved diabetes prevention and management.

No. of Pages : 20 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421004214 A

(19) INDIA

(22) Date of filing of Application :21/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SMART DATA ANALYTICS PLATFORM FOR PREDICTIVE MAINTENANCE IN INDUSTRIAL MACHINERY

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(51) International classification	:G05B0023020000, G06N0020000000, G06N0003040000, G01M0013028000, G06N0005040000	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

SMART DATA ANALYTICS PLATFORM FOR PREDICTIVE MAINTENANCE IN INDUSTRIAL MACHINERY ABSTRACT In the new era of Industry 4.0, one of the applications that presents a particularly difficult challenge is the predictive maintenance of industrial machines. Data-driven systems for condition monitoring are becoming increasingly popular for the purpose of early detection of anomalies on production machines. This is largely attributable to the predictive powers afforded by the rising smart data analytics. The purpose of this is to supply insights on the predictive maintenance of industrial robots and the feasibility of constructing a condition-monitoring system based on the data analysis of robot power measurements. Specifically, the will seek to deliver these insights. It is proposed that a predictive modelling technique be utilised for the purpose of detecting flaws in the precision of robot manipulators based on the examination of the robot's current data for the goal of predictive maintenance. In addition to this, an experimental process is carried out in order to test the suggested predictive modelling and to monitor the association between the robot accuracy error and a set of features taken from the current time series. Using the electrical power time-series data analysis, the results that were produced are good and demonstrate that it is possible to construct a data-driven condition monitoring system for robot manipulators

No. of Pages : 10 No. of Claims : 6

(54) Title of the invention : DYNAMIC MULTI-MODAL BIOMETRIC AUTHENTICATION SYSTEM FOR ENHANCED SECURITY

(51) International classification :G06F0021320000, G07C0009250000, G06Q0020400000, G07C0009000000, G07C0009370000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr. Ganesh Kamalnarayan Awasthi Address of Applicant :Assistant Professor, Department of Computer Science, Vivekanand Arts, Sardar Dalipsingh Commerce & Science College, Aurangabad-431005, India. ----- ----- 2)Dr. Bharatratna Pralhadrao Gaikwad 3)Dr. Vaibhav Venkatrao Kamble Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Ganesh Kamalnarayan Awasthi Address of Applicant :Assistant Professor, Department of Computer Science, Vivekanand Arts, Sardar Dalipsingh Commerce & Science College, Aurangabad-431005, India. ----- ----- 2)Dr. Bharatratna Pralhadrao Gaikwad Address of Applicant :Assistant Professor, Department of Computer Science, Vivekanand Arts, Sardar Dalipsingh Commerce & Science College, Aurangabad-431005, India. ----- ----- 3)Dr. Vaibhav Venkatrao Kamble Address of Applicant :Dr. Babasaheb Ambedkar Marathwada University, Aurangabad-431005, India. -----

(57) Abstract :
The presented invention discloses a dynamic multi-modal biometric authentication system designed to enhance security and user experience in authentication processes. By integrating various biometric modalities, including fingerprint recognition, iris scans, facial recognition, voice recognition, and behavioral biometrics, the system dynamically selects and combines these modalities based on real-time analysis of user interactions and environmental conditions. The innovative approach ensures a robust defense against unauthorized access and potential spoofing attempts while adapting to diverse operational scenarios. The system's adaptability, real-time processing, and user-centric design make it well-suited for applications such as physical access control, mobile device authentication, and secure transactions, setting a new standard in the evolving landscape of biometric security technologies.

No. of Pages : 18 No. of Claims : 7

(54) Title of the invention : A METHOD FOR ASSESSING STUDENTS' MINDSET AND PSYCHOLOGICAL STRESS LEVELS BEFORE AND AFTER EXAMINATIONS

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	:A61B0005000000, G16H0050200000, A61B0005160000, G09B0007020000, G09B0007000000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)INSTITUTE OF NUTRIGENETICS & NUTRIGENOMICS RESEARCH Address of Applicant :ROOM NO 2 (B.P.), HOUSE NO 506/1, DHURKOT, JANJGIR CHAMPA, CHHATTISGARH ----- - 2)INSTITUTE OF TRANSLATIONAL HEALTH SCIENCE 3)EMBRYOGENESIS - INFERTILITY DIAGNOSTICS & RESEARCH Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)DR. PULAKES PURKAIT Address of Applicant :FOUNDER & DIRECTOR, EMBRYOGENESIS-INFERTILITY DIAGNOSTICS & RESEARCH, JANJGIR-CHAMPA, CHHATTISGARH JANJGIR-CHAMPA ----- 2)DR. SONIA KAUSHAL Address of Applicant :ASSISTANT PROFESSOR, DR. HARI SINGH GOUR UNIVERSITY, SAGAR, MADHYA PRADESH Sagar ----- ----- 3)PRITAM DAS Address of Applicant :RESEARCH SCHOLAR, GAUHATI UNIVERSITY, KAMRUP METROPOLITAN, ASSAM KAMRUP METROPOLITAN ----- 4)SHAKTI SINGH CHUNDAWAT Address of Applicant :SCIENTIST, INSTITUTE OF TRANSLATIONAL HEALTH SCIENCE (ITHS), JANJGIR-CHAMPA, CHHATTISGARH JANJGIR-CHAMPA ----- 5)MS. JYOTI GARHEWAL Address of Applicant :FOUNDER & DIRECTOR, INSTITUTE OF NUTRIGENETICS & NUTRIGENOMICS RESEARCH (INNR), JANJGIR-CHAMPA, CHHATTISGARH JANJGIR-CHAMPA ----- -----

(57) Abstract :
Disclosed herein is a method (100) for the assessment of students' mindset and psychological stress levels before and after examinations. The method (100) begins with defining objectives (102) to clarify the assessment goals, followed by obtaining ethical approval (104) to ensure compliance. Selecting participants (106) involves strategically choosing a representative sample, and developing assessment tools (108) focuses on creating effective measurement instruments. Rigorous pilot testing (110) is conducted to address any issues, and pre-test data is collected (112) to establish baseline information. During the examination period, external factors are managed (114) to maintain standardized conditions. Post-test data collection (116) gauges changes in mindset and stress levels, while data analysis (118) employs appropriate statistical methods. Results are interpreted (120) in relation to assessment objectives, and comprehensive reports are generated (122). The method (100) concludes with seeking feedback and continuous improvement (124) for an iterative refinement of assessment process.

No. of Pages : 26 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421004448 A

(19) INDIA

(22) Date of filing of Application :22/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN INSTRUMENT FOR ARTHROSCOPIC SURGERY

(51) International classification :A61B17/00,
A61B17/06
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application :NA
Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Title: An Instrument for Arthroscopic Surgery An Instrument for Arthroscopic Surgery comprising a needle (3) of round shape embodied with a hole (2), flat bottom (4) and trocar tip with tapered end (1) using sutures herein inserting the needle (3) with suture through incision of knee capsule, in a coordinated way using suture from size 2-0 PDS or Fiber wire across the needle repair the meniscus effectively and efficiently outside of incision during arthroscopic surgery.

No. of Pages : 23 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421004489 A

(19) INDIA

(22) Date of filing of Application :23/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SMART PHOTOBIOREACTOR, BASED ON SAFT TECHNOLOGY, INTEGRATED WITH AIR FILTRATION AND POLLUTANT SCRUBBING MECHANISMS, FOR POLLUTION CONTROL AND CARBON SEQUESTRATION.

(51) International classification :C12M0001000000, B01D0053620000, C12M0001120000, G01N0029060000, G01S0015890000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention is about an integrated photobioreactor, based on SAFT (Spiral Air Flow Tubular) technology, for the purpose of pollution control / carbon sequestration / carbon mitigation / air purification. It is a self-sufficient structure named Aquinity. The principle aim of this invention is to grow algae in a contamination free environment for achieving high biomass production, along with filtering and purifying maximum air from the vicinity.

No. of Pages : 22 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :19/01/2024

(21) Application No.202421003819 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : 'POGOH PACKS': AN ACRONYM TO THE STREAMS OF NON-VERBAL COMMUNICATION SKILLS

(51) International classification :A61P0005140000, A61P0001040000, A61P0015080000, A61P0007000000, A61P0007060000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Abstract: The POGO PACKS' system represents a novel approach to enhancing non-verbal communication skills by utilizing an acronym-based framework. This patent outlines a comprehensive system that encompasses various aspects of non-verbal communication, including but not limited to posture, gestures, orientation, facial expressions, haptics, proxemics, appearance, clothing, kinesics, and silence. The POGO PACKS' system aims to provide individuals with a structured and easily understandable method to improve and master their non-verbal communication abilities.

No. of Pages : 7 No. of Claims : 1

(54) Title of the invention : QUANTITY DETECTOR, WIRELESS GAS LEAKAGE SENSOR AND PREDEFINED TRIGGERS MESSAGE FOR CUSTOMER.

(51) International classification :H04L0012280000, G05B0015020000, G05B0019418000, G08B0013196000,
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
ABSTRACT [500] Our Invention Quantity Detector, Wireless Gas Leakage Sensor and Predefined Triggers Message for Customer is a Security of lives and properties is highly important for enhanced quality living. Smart home automation and its application have received much progress towards convenience, comfort, safety, and home security. With the advances in technology and the Internet of Things (IoT), the home environment has witnessed an improved remote control of appliances, monitoring, and home security over the internet. Several home automation systems have been developed to monitor movements in the home and report to the user. Existing home automation systems detect motion and have surveillance for home security. However, the logical aspect of averting unnecessary or fake notifications is still a major area of challenge. This work presents an intelligent home automation system for controlling home appliances, monitoring environmental factors, and detecting movement in the home and its surroundings. A deep learning model is proposed for motion recognition and classification based on the detected movement patterns. Intelligent response and monitoring make smart home automation efficient.

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421004491 A

(19) INDIA

(22) Date of filing of Application :23/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : HERBAL COMPOSITION OF MEDICINAL MISHRI TO REPLACE TOBACCO MISHRI

(51) International classification :F02K0001720000, A61K0036185000, A61P0007040000, A61K0009000000, A61K0031704800

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

The present invention relates to herbal composition comprising medicinal herbs to replace tobacco mishri. Further invention relates to process for preparation of medicinal mishri. Another invention relates to medicinal herbs comprising patha, sunth, pimpali, haritaki, bibhitaki, amlaki, loadhra, yavkshar, khadhir and arjun. Yet another invention relates to herbal composition is powder or mishri form.

No. of Pages : 14 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421004505 A

(19) INDIA

(22) Date of filing of Application :23/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : HANDLING CLASS IMBALANCE PROBLEM FOR SMART ENERGY MONITORING.

(51) International classification :H04L0012280000, H04L0027260000, G06K0009620000, H02J0003260000, G01D0004000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)RANJEETSINGH SURYAWANSHI Address of Applicant :BHARATI VIDYAPEETH (DEEMED TO BE UNIVERSITY) COLLEGE OF ENGINEERING, PUNE - SATARA ROAD, DHANKAWADI, PUNE - 411043, MAHARASHTRA, INDIA. ----- 2)DR. AMOL KADAM Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)RANJEETSINGH SURYAWANSHI Address of Applicant :BHARATI VIDYAPEETH (DEEMED TO BE UNIVERSITY) COLLEGE OF ENGINEERING, PUNE - SATARA ROAD, DHANKAWADI, PUNE - 411043, MAHARASHTRA, INDIA. ----- 2)DR. AMOL KADAM Address of Applicant :BHARATI VIDYAPEETH (DEEMED TO BE UNIVERSITY) COLLEGE OF ENGINEERING, PUNE - SATARA ROAD, DHANKAWADI, PUNE - 411043, MAHARASHTRA, INDIA. -----

(57) Abstract :

Unforeseen discrepancies in energy monitoring data present challenges in terms inaccurate and biased results. To comprehensively address these challenges, we propose the development of a machine learning prediction model for energy monitoring data discrepancies, integrating crucial hardware components. This model not only aids in resolving energy-related issues but also specifically addresses class imbalance in defect prediction data, ultimately leading to improved accuracy. By incorporating hardware technology, such as real-time data acquisition and monitoring in energy consumption, this innovative approach offers a proactive solution to enhance data quality and reliability in the context of energy monitoring.

No. of Pages : 9 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421004532 A

(19) INDIA

(22) Date of filing of Application :23/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : IOT BASED ENERGY SURVEILLANCE SYSTEM.

(51) International classification :G01R22/10, G08C17/02, G16Y10/35, G16Y40/10, H04W4/38
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Energy Surveillance Systems are one of the most important technologies used to identify and monitor the flow of energy within systems as well as detect errors if any. Monitoring the energy of the devices used for different applications allows ns to keep track of the functioning of the devices up-to-date as well which in return can help us in identifying failure of the parts in the future.

No. of Pages : 9 No. of Claims : 4

(54) Title of the invention : IOT BASED INDUSTRIAL EMERGENCY ALERT SYSTEM.

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	(71)Name of Applicant : 1)GOPAL DADARAO UPADHYE Address of Applicant :VISHWAKARMA INSTITUTE OF TECHNOLOGY VIT, UPPER INDIRA NAGAR, BIBWEWADI, PUNE, MAHARASHTRA, INDIA - 411 037. ----- 2)HARSH VISHAL DOSHI 3)ARYAN ANAND DUDUL 4)NANDINI ANIL GAIKWAD 5)PRANAV KACHARU HOLE Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)GOPAL DADARAO UPADHYE Address of Applicant :VISHWAKARMA INSTITUTE OF TECHNOLOGY VIT, UPPER INDIRA NAGAR, BIBWEWADI, PUNE, MAHARASHTRA, INDIA - 411 037. ----- 2)HARSH VISHAL DOSHI Address of Applicant :VISHWAKARMA INSTITUTE OF TECHNOLOGY VIT, UPPER INDIRA NAGAR, BIBWEWADI, PUNE, MAHARASHTRA, INDIA - 411 037. ----- 3)ARYAN ANAND DUDUL Address of Applicant :VISHWAKARMA INSTITUTE OF TECHNOLOGY VIT, UPPER INDIRA NAGAR, BIBWEWADI, PUNE, MAHARASHTRA, INDIA - 411 037. ----- 4)NANDINI ANIL GAIKWAD Address of Applicant :VISHWAKARMA INSTITUTE OF TECHNOLOGY VIT, UPPER INDIRA NAGAR, BIBWEWADI, PUNE, MAHARASHTRA, INDIA - 411 037. ----- 5)PRANAV KACHARU HOLE Address of Applicant :VISHWAKARMA INSTITUTE OF TECHNOLOGY VIT, UPPER INDIRA NAGAR, BIBWEWADI, PUNE, MAHARASHTRA, INDIA - 411 037. -----

(57) Abstract :

The Internet of Things (IoT) has revolutionized the way we interact with technology and data, and its potential applications in industrial settings are vast. One such application is an IoT-based Industrial Emergency Alert System, which leverages various IoT devices and sensors to monitor the environment and equipment in real-time, detect potential hazards and emergencies, and alert relevant personnel to take action. The system is designed to provide a proactive approach to industrial safety and emergency management, detection and response to potential hazards and emergencies, and minimizing the impact of such events. The systemreal-time monitoring capabilities, early warning alerts, and faster response time enable personnel to take actions quickly, improving safety and reducing the risk of injury or damage.

No. of Pages : 10 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202421001774 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : IOT ENABLED HAEMOGLOBIN ANALYZER.

(51) International classification :A61B0005000000, A61B0005145500, A61B0005020500, A61B0005024000, A61B0005145000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT Our Invention IoT Enabled Hemoglobin Analyzer is this article describes the development and deployment of an Internet of Things (IoT)-based health monitoring system. With the advancement of technology in the modern day, medical professionals are always searching for novel electronic tools to make it simpler to identify anomalies in the body. Technology facilitated by the Internet of Things makes the development of innovative, non-invasive therapeutic assistance systems possible. A system for monitoring health care is presented in this study. Patients with COVID-19, hypertension, diabetes, and other conditions, in particular, do not always have immediate access to emergency rooms or health centers in underdeveloped nations like Bangladesh. For the general public, purchasing specific tools or making frequent hospital visits is equally costly. Our designed system will use Bluetooth to transfer the patient's blood oxygen saturation (SpO2) levels, heart rate, and body temperature to a mobile application. The Massachusetts Institute of Technology (MIT) inventor app was used to construct the mobile application, which will use Bluetooth to receive data from the device. The system is composed of three layers: application, logical, and physical.

No. of Pages : 7 No. of Claims : 6

(54) Title of the invention : TRANSLATION MEMORY SYSTEM FOR EFFICIENT DOCUMENT TRANSLATION

(51) International classification	:G06F0040470000, G06F0040580000, G06F0040450000, G06F0040510000, G06F0003060000	(71)Name of Applicant : 1)Prof. SANJAY AGAL Address of Applicant :PROFESSOR, COMPUTER ENGINEERING, PARUL INSTITUTE OF ENGINEERING & TECHNOLOGY, PARUL UNIVERSITY, VADODARA, GUJARAT-391760, INDIA Vadodara -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
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(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
ABSTRACT TRANSLATION MEMORY SYSTEM FOR EFFICIENT DOCUMENT TRANSLATION A translation memory system is a computer-based tool that stores previously translated documents and phrases for efficient translation of new documents in a language pair. It can be used by individual translators or translation agencies to improve the quality and speed of translation. The system works by creating a database of previously translated segments, such as sentences or paragraphs, and their corresponding translations. When a new document needs to be translated, the system automatically suggests translations for similar segments from the database, saving time and effort for the translator. In addition to improving efficiency, a translation memory system also helps maintain consistency and accuracy in translations. By reusing previously translated segments, the system ensures that the same terminology and phrasing is used throughout the document. This is especially helpful for technical or specialized content that uses specific terminology. Furthermore, translation memory systems typically have options for customization and glossaries, allowing translators to add specific terms and phrases to the database. This further improves the accuracy and consistency of translations, as well as reducing the time and effort required to search for or remember specific terminology. The use of a translation memory system can significantly improve the translation process, saving time and effort while maintaining quality and consistency. As technology continues to advance, these systems are becoming more sophisticated, providing even more efficient and accurate results.

No. of Pages : 9 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202141060625 A

(19) INDIA

(22) Date of filing of Application :24/03/2022

(43) Publication Date : 09/02/2024

(54) Title of the invention : A CONTAINERIZED CREW GUNNERY SIMULATOR SYSTEM

(51) International classification :G09B0009000000, F41G0003260000, G09B0009080000, A63B0024000000, G09B0009160000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Title:A CONTAINERIZED CREW GUNNERY SIMULATOR SYSTEM 7. ABSTRACT The present invention provides a containerized crew gunnery tank simulator system (100) for training tank operators in a realistic and immersive environment. The system includes a trainee cabin (1), a visual station (2), an instructor station (3), an input-output station (4), a motion platform (5), a sound simulation system (6), and an instructor console rack (8). The visual station (2) renders 3D scenarios in high resolution, while the sound simulation system (6) generates various tank sounds synchronized with different phases of operation. The instructor station (3) controls training sessions and evaluates trainee performance based on various parameters. The system includes a wide range of individual training programs, including basic and custom training capsules, audio communication system, and a fault simulation module for troubleshooting. The method of use involves selecting a training session, initiating and monitoring the session, recording and reviewing performance, and repeating until desired proficiency is reached. The system provides a fully immersive training experience and improves the efficiency of training tank operators. The figure associated with the abstract is fig. 1.

No. of Pages : 29 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202141060626 A

(19) INDIA

(22) Date of filing of Application :24/03/2022

(43) Publication Date : 09/02/2024

(54) Title of the invention : A CONTAINERIZED BASIC GUNNERY SIMULATOR

(51) International classification :F41G0003260000, G09B0009000000, A63F0013280000, G09B0009020000, G09B0009300000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

TITLE: A CONTAINERIZED BASIC GUNNERY SIMULATOR 7. ABSTRACT This invention relates to a basic gunnery simulation containerized system (100) comprising various components for training gunners, which provides a sense of realistic feel through an electro-mechanical motion platform (42). The system includes an instructor station (5) with a CPU assembly, visual stations, and communication equipment (4), which allows the instructor to monitor and control the training sessions effectively. The motion platform unit (42) provides three degrees of freedom and a sense of realistic feel through actuator assemblies and proximity sensor arrangement. The system (100) also includes a trainee cabin (10), a ladder weldment unit (7), a gunner cabin assembly (8), and a gunner hatch with sensor arrangement (9). The container arrangement provides protection to the major internal components, and the system is equipped with features such as realistic simulation of battlefield conditions, a wide variety of Indian sub-continent terrains, and identification of faults online. The Figure associated with abstract is Fig 1.

No. of Pages : 29 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202141060627 A

(19) INDIA

(22) Date of filing of Application :24/03/2022

(43) Publication Date : 09/02/2024

(54) Title of the invention : A BASIC GUNNERY TRAINING SIMULATOR

(51) International classification :G09B0009000000, F41G0003260000, G09B0025020000, G09B0009020000, G09B0019000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

TITLE: A BASIC GUNNERY TRAINING SIMULATOR 7. ABSTRACT The present invention relates to a containerized basic gunnery training simulator system (100) that includes a container assembly (11), gunnery cabin (10), electro-mechanical motion platform assembly (9), actuator assembly (8), ladder weldment (6), Motion Control Unit (MCU) (5), instructor station console rack assembly (4), a plurality of visual stations (3), an instructor seat, and a plurality of power sockets (1). The system (100) enables trainee gunners to operate a replica of the turret of the T-90 tank under different terrain and environmental conditions, with a 180-degree field of view through a visual display system, realistic motion and recoil simulation, and various battlefield noises generated by the input-output station. The system (100) tracks the trainee gunner's activities through the IO control unit and sends them to the instructor station for feedback. The containerized design makes the system mobile, weatherproof, and easy to transport to different locations. The invention provides a method for training a trainee gunner using the simulator system (100). The Figure associated with abstract is Fig 1.

No. of Pages : 29 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202241003529 A

(19) INDIA

(22) Date of filing of Application :21/01/2022

(43) Publication Date : 09/02/2024

(54) Title of the invention : A MINE FIELD TRACKING AND SAFE RETRIEVAL SYSTEM

(51) International classification :F41H0011120000, H04W0016180000, F41H0011140000, G01B0005140000, G01C0021200000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

TITLE: A MINE FIELD TRACKING AND SAFE RETRIEVAL SYSTEM 7. ABSTRACT A mine fieldtracking and safe retrieval system (11) which should be capable of recording minefield with complete accuracy is disclosed. The system (11) is so designed, when required, be able to indicate correct location of mines, even if they have drifted from their original locations. The said system (11) comprises of a base station (1) for GPS augmentation, a Wi-Fi router (2) for internal communication, hand held modules (3) with GPS rover, marker tracers with GPS rover (4), a tough pad (8) wherein a software module (9) is preinstalled, a charging station (10), and RFID tags (7) used in laying of a minefield. The said system (11) is configured to assist users connected over secured network in planning (22), recce (24), mine laying (26) and in clearance (28) of the said minefield. The Figure associated with abstract is Fig. 1

No. of Pages : 28 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202241013527 A

(19) INDIA

(22) Date of filing of Application :12/03/2022

(43) Publication Date : 09/02/2024

(54) Title of the invention : SHOOTEDGE® ADAPTER SYSTEM

(51) International classification :F41A0017060000, F41C0023120000, F41C0023140000, F41C0023200000, F41C0023040000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Title: SHOOTEDGE® ADAPTER SYSTEM 7. ABSTRACT A shoot edge firearm adapter system (1) includes a two-part body structure with a replaceable foldable butt stock (2), a rear stock (3), a fore stock (4), a bottom structure (5), a sensor block (6), a rear handle (7), a front handle (8), a spring-loaded trigger unit (9), a swivel trigger (12), and a safety locking mechanism with a stopper (11), a locking pin 913), and a locking point (14). The system has three similar target locking positions and enables the moment of the fore stock (4) towards movable degrees -65o, 0o, +65o. The system forms a four-bar mechanism and allows a user to swivel and lock the fore stock (4) accommodating the firearm (10) in at least one edge shooting position. The safety locking mechanism prevents the firer from firing when the fore stock (4) is in a free-moving position. The system's hinge placement decreases the cantilever of the fore stock (4) and helps decrease swaying during recoil, increasing firing accuracy. The figure associated with abstract is Fig 1.

No. of Pages : 29 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202241040731 A

(19) INDIA

(22) Date of filing of Application :15/10/2022

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN AUTOMATED HARD KILL FIREARM MOUNTING SYSTEM

(51) International classification :B60R0011000000, A63B0024000000, F21V0021150000, F16M0011100000, F16M0011160000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

TITLE: AN AUTOMATED HARD KILL FIREARM MOUNTING SYSTEM 7. ABSTRACT An automated hard kill firearm mounting system (1) is disclosed. The mounting system (1) hosts the firearm (12) with aid of a holding frame (13). The said mounting system (1) comprises of a mounting platform (2), a main control unit (4), an instructor station (4), and a touch book unit (3). The said mounting platform (2) hordes a camera unit and a laser unit for target acquisition. The main control unit (4) is preinstalled with an application software for automatic target acquisition and firing. The said mounting platform (2) comprises of an azimuthal axis (6) along its horizontal side and an elevation axis (9) along its vertical side. The said mounting system (1) is configured to function automatically whenever a target is determined by the application software. The Figure associated with the Abstract is Fig 1A and 1B.

No. of Pages : 19 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202241072046 A

(19) INDIA

(22) Date of filing of Application :13/12/2022

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SYSTEM AND METHOD FOR WELDING THE ENRICHED CARBON SURFACE COMPONENT TO A LOW OR MEDIUM CARBON STEEL COMPONENT

(51) International classification :C22C0038040000, C22C0038020000, B23K0103000000, C21D0009040000, B23K0009173000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(72)Name of Inventor :

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(57) Abstract :

ABSTRACT A SYSTEM AND METHOD FOR WELDING THE ENRICHED CARBON SURFACE COMPONENT TO A LOW OR MEDIUM CARBON STEEL COMPONENT The present invention relates to a system and method to weld the enriched carbon surface component (0.8%C) to a low or medium carbon steel component using GMAW process. This invention eliminates weld cracks of the enriched carbon surface by transforming martensitic structure to a pearlite structure by local annealing of the component by Induction annealing process the martensite structure transformed to pearlitic structure which is more favourable for welding process. Published with Figures 1a; 1b

No. of Pages : 12 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202241076159 A

(19) INDIA

(22) Date of filing of Application :28/12/2022

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SYSTEM AND METHOD FOR MANUAL OPERATION OF A GUIDED VEHICLE ENABLED FOR DRIVERLESS OPERATION

(51) International classification	:G05D0001020000, G05D0001000000, B66F0009060000, B23K0009320000, B60W0050080000	(71)Name of Applicant : 1)BEML LIMITED Address of Applicant :BEML Soudha, No 23/1, 4th Main S.R. Nagar, Bengaluru Bengaluru ----- Name of Applicant : NA Address of Applicant : NA
(86) International Application No	:NA	(72)Name of Inventor : 1)LIXON THOMAS T Address of Applicant :BEML LIMITED, BEML Soudha, No 23/1, 4th Main S.R. Nagar, Bengaluru- 560027, Karnataka Bengaluru -- -----
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Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

ABSTRACT A SYSTEM AND METHOD FOR MANUAL OPERATION OF A GUIDED VEHICLE ENABLED FOR DRIVERLESS OPERATION The present invention relates to a system and method for manual operation of a guided vehicle enabled for driverless operation. The system for manual operation of a guided vehicle enabled for driverless operation includes deploying a degraded mode of operation configured to manage the vehicle to a reduced operation state if the attendant is unable to control the vehicle when the conditions for manual driving and monitoring of vehicle status is not possible. Published with Figure 2

No. of Pages : 16 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202241076731 A

(19) INDIA

(22) Date of filing of Application :29/12/2022

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN INFANTRY VIRTUAL TRAINING MULTI STATION SIMULATION SYSTEM, AND METHOD OF ITS USE

(51) International classification :G09B0009000000, F41G0003260000, A62C0099000000, F41A0033020000, G01S0005000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :

TITLE: AN INFANTRY VIRTUAL TRAINING MULTI STATION SIMULATION SYSTEM, AND METHOD OF ITS USE 7.
ABSTRACT An Infantry Virtual Training Multi Station Simulation System (IVTSS) (100) and a method (400) of its use is disclosed. The said IVTSS system (100) is integrated with plurality of sensorized simulated weapons (7, 8), like an Infantry Weapons Training Simulator (IWTS), a Medium Machine Gun Simulator (MMG Sim), an Automatic Grenade Launcher Simulator (AGL Sim), a mock-up 81mm and/or a 60mm Mortar Simulator, and sensor weapons such as a mock-up rifle alongside with at least one return fire simulation module. A return fire module of the said system (100) enables to process hits of enemy fire on trainees as it consists of return fire unit worn by the trainees in tactical exercises, wherein vibrations were felt by the trainees (51). An IR unit (12) of the said IVTSS, with an infrared sensing device is assembled to the said simulator weapon (lane units) wherein the laser fire of trainees (51) in various simulators are captured by said infrared sensing device and sent to the system (100) for processing in either a combined or a standalone mode (31) of operation. The figure associated with abstract is Fig 1 and 5.

No. of Pages : 30 No. of Claims : 10

(54) Title of the invention : AN HIGH ANGLED FIRING WEAPON SIMULATOR SYSTEM, AND IT’S METHOD OF USE

(51) International classification :G09B0009000000, G09B0023280000, F41G0003260000, G09B0023300000, F41A0033000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)ZEN TECHNOLOGIES LIMITED Address of Applicant :B-42, Industrial Estate, Sanath Nagar, Hyderabad, Telangana, India - 500018. Hyderabad ----- ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)KISHORE DUTT ATLURI Address of Applicant :B-42, Industrial Estate, Sanath Nagar, Hyderabad, Telangana, India - 500018. Hyderabad ----- -----

(57) Abstract :
TITLE: AN HIGHANGLED FIRING WEAPON SIMULATOR SYSTEM, AND IT’S METHOD OF USE 7. ABSTRACT A high-angled firing weapon simulator system (1) intricately blanketing a 60MM mortar is disclosed. The blank mortar features a bottom plate (2), sub plate (3), joining assembly (4), and barrel assembly (5) with a sighting subsystem (10). Proximity sensor modules, two target-adjusting knobs (6, 7), and a locking mechanism ensure precise training. A dedicated software module enhances versatility for various simulated exercises. Nuts, bolts (17), a lane unit (18), and a recoil unit provide a realistic multisensory experience. The system (1) includes blank missiles (19) for training. This innovative simulator (1) is a holistic, adaptive, and dynamic tool, preparing trainees for diverse military scenarios. The figure associated with the abstract is Fig 1.

No. of Pages : 27 No. of Claims : 13

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202241076984 A

(19) INDIA

(22) Date of filing of Application :29/12/2022

(43) Publication Date : 09/02/2024

(54) Title of the invention : A REAL TIME METHOD FOR REMOTELY ANALYSING LESIONS

(51) International classification :G06T0007730000, G16H0030200000, G16H0040670000, A61B0005000000, G16H0030400000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT A REAL TIME METHOD FOR REMOTELY ANALYSING LESIONS The invention provides a real time method for remotely analysing lesions for effective triaging of patients. The method includes performing a first validation for capturing an image of the lesions, the first validation includes positioning an image capturing device with respect to the lesions within a predefined degree of orientation in X axis and Y axis, performing a second validation for capturing the image of the lesions by validating on real time basis the positioning of the image capturing device with respect to the lesions by an expert, capturing image of the lesions from the position validated through the first validation and the second validation, storing the captured image in a central server and analysing the lesions in the image for degree of severity of the lesions. The degree of severity of the lesions in the image is analysed by calculating the length, width, area, colour and depth of the lesions. FIG.1

No. of Pages : 25 No. of Claims : 15

(54) Title of the invention : A SYSTEM AND METHOD OF PERFORMING A TRANSACTION THROUGH A CREDIT ACCOUNT USING BLOCKCHAIN

(51) International classification :G06Q0020380000, H04L0009320000, G06K0019060000, G06Q0020360000, G06F0016180000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present disclosure provides a system and method of performing a credit transaction using blockchain. The method includes the steps of: verifying (401) details of a user for registering a user profile on a payment interface, by a processor of a server, then creating (402) a credit account on the payment interface for the user profile, by linking to a debit account of the user, by a processor of a user device. Then, a unique code is generated (403) corresponding to the user profile based on government authorised document data and biometrics data, for facilitating transactions on the payment interface, by the user device. Then, initiating (404) a transaction involving an amount, between a unique code of a payer and a payee, transferring (405) the amount from the payer to the payee, wherein the amount transferred (406) to credit account by the processor of the server. Fig. 4

No. of Pages : 36 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202341006316 A

(19) INDIA

(22) Date of filing of Application :31/01/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : A CATHODE ACTIVE MATERIAL AND PROCESSES THEREOF

(51) International classification	:H01M0004525000, H01M0004505000, C10M0161000000, C10G0001020000, H01L0031022400	(71)Name of Applicant : 1)OLA ELECTRIC MOBILITY LIMITED Address of Applicant :Regent Insignia, #414, 3rd Floor, 4th Block, 17th Main, 100 Feet Road, Koramangala, Bengaluru - Karnataka 560034, India Bangalore -----
(86) International Application No	:NA	Name of Applicant : NA
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(87) International Publication No	: NA	(72)Name of Inventor :
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(62) Divisional to	:NA	
Application Number	:NA	
Filing Date		

(57) Abstract :

ABSTRACT A CATHODE ACTIVE MATERIAL AND PROCESSES THEREOF The present disclosure provides a cathode active material composite comprising: (a) a lithium-manganese oxide; (b) an active carbon source; and (c) a solid oxide, wherein the active carbon source is dispersed in the solid oxide and the lithium-manganese oxide is coated with the solid oxide as depicted in Figure 1. Further, the present disclosure provides a process of preparing the cathode active material composite. The present disclosure also provides a cathode and an electrochemical cell comprising the cathode as disclosed herein.

No. of Pages : 34 No. of Claims : 14

(54) Title of the invention : PLANT-BASED BLENDED OIL POWDER ENRICHED WITH OMEGA-3-FATTY ACIDS AND METHOD FOR PRODUCING THE SAME

(51) International classification	:A23C9/16, A23D9/00, A23J3/08, A23K20/158, A23L29/30, A23L33/115, A23L33/12, A23L33/150	(71)Name of Applicant : 1)NEU FUN FOOD LLP Address of Applicant :NO 40, AALWAR MURUGAPPA STREET, CHUNNAMBUPET, GUDIYATTHAM, VELLORE DISTRICT, TAMIL NADU VELLORE ----- Name of Applicant : NA Address of Applicant : NA
(86) International Application No	:NA	(72)Name of Inventor :
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(61) Patent of Addition to Application Number	:NA	-----
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(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
The present disclosure provides a plant-based blended oil powder enriched with omega-3-fatty acids and a method for producing the plant-based blended oil powder. The plant-based blended oil powder includes (i) 20% to 70% weight by weight (w/w) of a first oil component, and (ii) 30% to 80% w/w of a second oil component. The food composition further includes one or more additives including wall material, mineral source, vitamin source, emulsifier, and stabilizer. The plant-based blended oil powder of the present disclosure provides a desired essential fatty acid profile in food products and animal nutrition (for example, feed of layer chicken, broiler chicken, and cattle) with a ratio of omega-6 fatty acids to omega-3 fatty acids ranges between 0.4-5.0; and a ratio of saturated fatty acid (SAFA): monounsaturated fatty acid (MUFA): polyunsaturated fatty acid (PUFA) ranges between 1:1:1-1:3:3.5 which is close to ratio recommended by world health organization. FIG. 1

No. of Pages : 28 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :15/04/2023

(21) Application No.202341027763 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : AI-based fabric hole detection system

(51) International classification :G06T0007000000, G06K0009620000, G01N0021880000, G06N0020000000, G16H0050200000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

An AI-based fabric hole detection system is a technology that uses artificial intelligence algorithms to automatically detect and classify holes or defects in fabric materials. The system consists of several components, including a conveyor system to transport the fabric, cameras to capture images of the fabric, a lighting system to illuminate the fabric, and an image processing unit to analyse the images and detect defects. The system also has an object detection unit to find and locate defects in the fabric, a feature extraction unit to pull relevant features from the images, and a machine learning model to classify the defects based on their attributes. Lastly, a defect classification unit is used to sort the found defects based on their size, shape, and location in the fabric. The output of the system is typically displayed on a graphical user interface (GUI) or dashboard, providing real-time feedback on the defect detection process. The AI-based fabric hole detection system offers several advantages, including improved accuracy, speed, and consistency compared to traditional manual inspection methods. The system is also highly customizable and adaptable to different production environments and requirements.

No. of Pages : 14 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202341039974 A

(19) INDIA

(22) Date of filing of Application :12/06/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : METHOD AND SYSTEM FOR ROAD SIDE ASSISTANCE

(51) International classification :G06F0016245700, G06Q0030060000, G06Q0030000000, G16H0040670000, H04M0003510000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

METHOD AND SYSTEM FOR ROAD SIDE AND EMERGENCY ASSISTANCE, of the present invention provides a list of potential service providers associated with the system. The system comprises of a registration module installed for registration, a login module attached to registration module for login, a utility module connected to login module for providing plurality of service choices and plurality of service center's list, a database associated with system for storing set of information(s) and a user platform for accessing services. Requests for roadside services and emergency assistance can be assigned to an available service provider. Service providers can be ranked based on a variety of criteria and requests can be assigned based on the ranking. The ranking of service providers can be adjusted based on the performance of the service provider. If a service provider takes too long to respond to a request, the request can be automatically declined and an alternative service provider can be selected.

No. of Pages : 22 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202341042401 A

(19) INDIA

(22) Date of filing of Application :24/06/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : SELECTIVE HARVESTER FOR PICKING TENDER TEA SHOOTS AT PRE-SET HEIGHTS

(51) International classification :A01D46/04, A01D46/30		(71)Name of Applicant : 1)SURINOVA PRIVATE LIMITED Address of Applicant :No:31-A, 100 Feet Road, Thiru Vi Ka Industrail Estate, Ekkatuthangal, Chennai. Chennai ----- -----
(86) International Application No	:NA	Name of Applicant : NA Address of Applicant : NA
Filing Date	:NA	
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number	:NA	1)ETHIRAJAN ARULMANI Address of Applicant :No:31-A, 100 Feet Road, Thiru Vi Ka Industrail Estate, Ekkatuthangal, Chennai. Chennai ----- -----
Filing Date	:NA	2)SATHISHKUMAR THAVAN Address of Applicant :No:31-A, 100 Feet Road, Thiru Vi Ka Industrail Estate, Ekkatuthangal, Chennai. Chennai ----- -----
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The present invention relates to a selective harvester (101) for harvesting tender tea shoots from the tea bush. The same selective harvester can harvest any leaf from the leaf plant/tree. The replaceable selector unit (104) is one of the vital part of the selective harvester which is transversely extended from a harvester frame (102) and a set of trimming blades (105) arranged subsequent to the replaceable selector unit (104). The actuator (106) and gear (107) drive the trimming blades (105) and replacement selector unit (104) in horizontal reciprocation motion. With the help of a control system (110), the speed of the above-mentioned actuators (106) can be controlled depending on the speed of the prime mover (103) and the pre-set height and pitch gap. Selector unit (104) capable of meeting pre-set tender tea shoots via plurality of teeth (108), disallowing mother leaf, bending and allowing only pre-set tea shoots through pitch gaps (109), resulting in only harvesting the pre-set height tender tea shoots (Refer Figure 1).

No. of Pages : 20 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202341055081 A

(19) INDIA

(22) Date of filing of Application :17/08/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SMART BLOOD COMPONENT SEPERATOR FOR UMBILICAL CORD BLOOD

(51) International classification :A61K0035510000, A61M0001020000, B02C0019000000, A61M0001360000, C08J0005220000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Title: A Smart Blood component Separator for Umbilical cord blood Umbilical cord blood is a rich source of hematopoietic stem cells (HSCs). However, the critical importance is that, what will be the extent of recovery of these stem cells after processing. Every technician in the stem cell bank, performs around 15 to 20 samples/day and which generally takes around 6 hrs to complete the process with the usage of multiple equipment. To reduce the time consumption and to provide economically viable equipment with multiple functions, the focus is on the development of novel cord blood component separator which involves triple mechanism in a single equipment to improve the process efficiency and minimize the contamination possibilities for a successful transplantation. The spring hinge system involves in the separation of plasma and buffy coat after 1st centrifugation and the proximity metal sensor on the expressor body along with volume sensitivity tool in the acrylic plate are involved in the retention of final volume and separate the excess plasma after 2nd centrifugation and the attached RF Sealer is placed on the right side of the expressor body and is used to separate the tubing for storing the final stem cell product in the liquid nitrogen.

No. of Pages : 20 No. of Claims : 6

(54) Title of the invention : A SYSTEM AND METHOD OF GESTURE-CONTROLLED VIRTUAL MOUSE AND VIRTUAL KEYBOARD USING ARTIFICIAL INTELLIGENCE

(51) International classification :G06F0003048860, G10L0015220000, G06N0020000000, G06F0003010000, G06F0003160000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)GMR INSTITUTE OF TECHNOLOGY Address of Applicant :GMR Nagar, Rajam, Andhra Pradesh Rajam ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)KOTTI JAYASRI Address of Applicant :Department of Information Technology, GMR Institute of Technology, GMR Nagar, Rajam, Andhra Pradesh- 532127 Rajam ----- 2)HEMALATHA ADIMULAMU Address of Applicant :Department of Information Technology, GMR Institute of Technology, GMR Nagar, Rajam, Andhra Pradesh- 532127 Rajam ----- 3)KARRI SRI RAKESH REDDY Address of Applicant :Department of Information Technology, GMR Institute of Technology, GMR Nagar, Rajam, Andhra Pradesh- 532127 Rajam ----- 4)BALA BOMMA LOKESH Address of Applicant :Department of Information Technology, GMR Institute of Technology, GMR Nagar, Rajam, Andhra Pradesh- 532127 Rajam ----- 5)KANDALADA SAI SASI KIRAN Address of Applicant :Department of Information Technology, GMR Institute of Technology, GMR Nagar, Rajam, Andhra Pradesh- 532127 Rajam -----

(57) Abstract :
The present invention relates to a system and method of gesture-controlled virtual mouse and virtual keyboard using artificial intelligence. Artificial intelligence (AI)-based virtual mouse, virtual keyboard and the virtual assistant make advantage of present improvements in natural language processing, user interface design, and artificial intelligence. But by providing more intelligent, intuitive, and context-aware solutions. It improves user interactions and increase productivity all around. Thus, the invention provides a way of communication with computers and other gadgets, their usability and accessibility for a wide range of users has been improved. Published with Figure 1

No. of Pages : 30 No. of Claims : 3

(54) Title of the invention : BISMUTH FERRITE-BASED FLEXIBLE DEVICE FOR ROOM TEMPERATURE GAS SENSING

(51) International classification :B82B3/00, B82Y30/00, B82Y40/00, G01N27/407 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)INDIAN INSTITUTE OF TECHNOLOGY MADRAS (IIT Madras) Address of Applicant :THE DEAN, INDUSTRIAL CONSULTANCY & SPONSORED RESEARCH (IC&SR), INDIAN INSTITUTE OF TECHNOLOGY MADRAS, SARDAR PATEL ROAD, IIT P.O, CHENNAI – 600036, INDIA, PHONE: 044 – 2257 8061/8062 EMAIL: deanicsr@iitm.ac.in Chennai ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Parasuraman Swaminathan Address of Applicant :NAC #229, Metallurgical and Materials Engineering, Indian Institute of Technology Madras, Chennai - 600036 Chennai ----- 2)Sanjeev Patil Address of Applicant :J-603 Army Welfare Society, Sector-9, Nerul-East, Navi Mumbai, Maharashtra - 400706 Mumbai ----- 3)Sudha Arumugam Address of Applicant :NAC 213, Metallurgical and Materials Engineering, Indian Institute of Technology Madras, Chennai - 600036 Chennai -----

(57) Abstract :

ABSTRACT BISMUTH FERRITE-BASED FLEXIBLE DEVICE FOR ROOM TEMPERATURE GAS SENSING The present invention relates to the synthesis of a bismuth ferrite-metal nanowire, specifically bismuth ferrite-silver nanowire (BiFeO₃-Ag NW) composite based on sol-gel-synthesized BiFeO₃ nanoparticles and silver nanowires, which is followed by device fabrication using a direct writing printing technique. The gas sensing behavior of this novel combination of BiFeO₃ nanoparticles-Ag nanowires is studied, along with the current-voltage (I-V) behavior for various BiFeO₃-Ag NW combinations. In the proposed sensor, the metal oxide semiconductor device has nanowires for enhanced charge carrier conduction. Moreover, the gas sensor features an interdigitated electrode pattern for electrical contacts on a flexible substrate. Additionally, the proposed sensor possesses the capability to sense NO₂ at sub-ppm levels at room temperature and a possible sensing mechanism of the BFO-Ag NW composite in the presence of NO₂ is proposed. Besides, the designed BiFeO₃-Ag NW device is flexible and exhibits a rapid response time.

No. of Pages : 26 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :20/10/2023

(21) Application No.202341071606 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN ORAL HYGIENE MAINTENANCE TOOL

(51) International classification :A61C0017020000, A46B0009040000, A61Q0011000000, A61C0015040000, A61C0015000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention relates to a dental care glove fitted with toothbrushes (100) in the index and the middle fingers, interdental cleansing aid (101) in the pinkie finger, gum massagers (102) in the thumb and ring fingers, a cuff like fitting around the wrist (103) of the glove structure. Every finger is fitted with a vibrator behind the cleansing tools. The lithium powered battery is fitted inside the wrist region of the glove. Wires connecting the vibrators to the battery run parallel to the fingers behind and inside the glove. Different cleansing aids in a single glove aid in providing a wholesome dental cleaning experience in one go for the motility impaired, especially the cerebral palsy patients, and provide thorough cleaning by use of vibrators that remove debris and plaque forming agents deposited along the teeth and also provide gum massaging. Fig.1

No. of Pages : 5 No. of Claims : 8

(54) Title of the invention : DEVICE AND METHOD FOR DETERMINING VEHICLE ORIENTATION

(51) International classification	:G06T0007730000, G01C0021000000, G01C0021160000, H04N0005225000, G05D0001000000	(71)Name of Applicant : 1)HARISH VARDHANA D Address of Applicant :1/454, Natco Colony, Kottivakkam, Chennai, Tamil Nadu, India 600041. Chennai -----
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(87) International Publication No	: NA	Address of Applicant : NA
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Filing Date	:NA	2)ASWINI R
		Address of Applicant :1/454, Natco Colony, Kottivakkam, Chennai, Tamil Nadu, India 600041. Chennai -----

(57) Abstract :
Disclosed is a vehicle (100) includes one or more imaging sensors (102A-N), positioned on undercarriage of the vehicle (100) and adapted to generate inputs representing one or more images of ground associated with a path of the vehicle (100) and processing circuitry (104), that is adapted to receive the captured image from the one or more imaging sensors and measure orientation (left or right) and direction (forward or reverse) of the vehicle 100 based on the captured inputs received from the one or more imaging sensors (102A-N) by way of a computer vision technique. The present disclosure also relates to a method (200) for determining orientation of a vehicle (100). Refer Figure 1A.

No. of Pages : 25 No. of Claims : 11

(54) Title of the invention : DEVICE AND METHOD FOR VEHICLE NAVIGATION

(51) International classification	:G01C0021340000, G01C0021360000, G06T0007730000, G06F0003048830, G01S0005020000	(71)Name of Applicant : 1)HARISH VARDHANA D Address of Applicant :1/454, Natco Colony, Kottivakkam, Chennai, Tamil Nadu, India 600041. Chennai -----
(86) International Application No	:NA	2)ASWINI R
Filing Date	:NA	Name of Applicant : NA
(87) International Publication No	: NA	Address of Applicant : NA
(61) Patent of Addition to Application Number	:NA	(72)Name of Inventor :
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(57) Abstract :
Disclosed is a navigating device (100) for a vehicle, the navigating device (100) includes a locating means (102) that is adapted to locate an initial position (X', Y') of the vehicle, a matrix generator (108) that is adapted to generate one or more matrices around the initial position (X', Y') of the vehicle and the destination location (X, Y), and a processing circuitry (106) that is communicatively coupled with the locating means (102) and the matrix generator (104), and is adapted to map a destination in the generated one or more matrices, calculate distance associated with the destination, and determines necessary steering and throttle adjustments. The navigating device (100) for the vehicle also provides a method (200) for navigating the vehicle. Refer Figure 1

No. of Pages : 23 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202341073807 A

(19) INDIA

(22) Date of filing of Application :30/10/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : A METHOD FOR ESTIMATING ENZYME ACTIVITY BY COMBINING NATIVE POLYACRYLAMIDE GEL ELECTROPHORESIS WITH ZYMOGRAPHY

(51) International classification :G01N0027447000, G01N0001280000, C12N0009040000, A61B0005107000, C12Q0001420000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT: Title: A Method for Estimating Enzyme Activity by Combining Native Polyacrylamide Gel Electrophoresis with Zymography The present disclosure proposes a method for estimating enzyme activity by combining native polyacrylamide gel electrophoresis with zymography. The method helps in rapid detection of enzyme activity of various proteinases without lengthy procedures of enzyme extraction, purification and evaluation. The method detects active molecules without any destruction to the protein structure. The method improves detection capabilities of malfunctioning enzymes in clinical settings and enhances the pace of biomedical research. The method uses native PAGE (polyacrylamide gel electrophoresis) technique to separate proteins based on their native conformation, which includes their size, charge, and shape. The method is highly beneficial for testing the unpurified samples such as blood-plasma.

No. of Pages : 13 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202341074500 A

(19) INDIA

(22) Date of filing of Application :01/11/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : A COMPOSITION AND METHOD FOR PREPARING AN HERBAL EMULGEL FOR HAIR CARE ROUTINE

(51) International classification :A61Q0005020000, A61K0047100000, A61Q0005000000, A61K0009000000, A61K0008250000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(72)Name of Inventor :

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(57) Abstract :

ABSTRACT: Title: A Composition and Method for Preparing an Herbal Emulgel for Hair Care Routine The present disclosure proposes a composition and method of preparation of herbal-based hair care product with improved efficacy, stability, and user experience. The herbal emulgel composition (100) for hair care routine comprises plurality of water phase ingredients, plurality of oil phase ingredients, at least one thickening agent and one or more preservatives. The herbal-based emulgel composition (100) is a single solution for managing the overall hair care routine of a user due to versatile usage of the herbal emulgel as a hair shampoo, a hair dye, a hair oil, a hair pack, a hair conditioner and a hair serum. The proposed composition (100) enhances stability by extending the shelf life without compromising safety or efficacy. The proposed composition (100) enhances user experience by creating a pleasant fragrance, desirable texture, consistent appearance and long lasting effects.

No. of Pages : 16 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :24/11/2023

(21) Application No.202341079931 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A COST EFFECTIVE RETROFITTING DRIVE BY WIRE KIT FOR AUTONOMOUS ELECTRIC VEHICLES

(51) International classification :G05D0001000000, G05D0001020000, B60W0030180000, G06F0021320000, G01S0017931000		(71)Name of Applicant : 1)NMICPS Technology Innovation Hub On Autonomous Navigation Foundation Address of Applicant :C/o Indian Institute of Technology Hyderabad, Kandi, Sangareddy, Telangana Kandi ----- ---
(86) International Application No	:NA	2)Indian Institute Of Technology Hyderabad
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(87) International Publication No	: NA	Address of Applicant : NA
(61) Patent of Addition to Application Number	:NA	(72)Name of Inventor :
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(57) Abstract :

ABSTRACT A COST EFFECTIVE RETROFITTING DRIVE BY WIRE KIT FOR AUTONOMOUS ELECTRIC VEHICLES The present invention relates to a cost effective retrofitting drive by wire kit for autonomous electric vehicles. The invention is a drive-by-wire (DBW) system which is flexible to adapt in any vehicle which makes the proposed kit as unique DBW solution for autonomous vehicles. Enhanced the system reliability by incorporating redundancy and fault-tolerance strategies, ensures safe operation even in the presence of component failures. Published with Figure 1

No. of Pages : 38 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :29/11/2023

(21) Application No.202341080951 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : ENABLING SATELLITE COMMUNICATIONS TO ELECTRIC VEHICLES

(51) International classification :H04B0007185000, H04W0084060000, B60R0001040000, E02F0009220000, F25D0031000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT ENABLING SATELLITE COMMUNICATIONS TO ELECTRIC VEHICLES A method and a system for enabling satellite communication to an electric vehicle is disclosed. The system includes an electronic controller (101) operably coupled to a cellular communication module (1011), a satellite communication module (1012), a short-range communication module (1013), a server (103) and one or more user devices (104) wherein the cellular communication module (1011) detects an unavailability of cellular network and the same input is received by the electronic controller (101). Thereafter, the electronic controller activates the satellite communication module (1012) wherein the satellite communication module (1012) establishes a first communication path (1021) with a satellite (102). The satellite (102) further establishes a second communication path (1033) with the server (103) and wherein the server (103) establishes a third communication path (1041) with one or more user devices (104). Further, one or more critical data provided by a rider is configured to be communicated between the aforementioned communication paths.

No. of Pages : 28 No. of Claims : 9

(54) Title of the invention : A REAL TIME MONITORING ENABLED TRANSDERMAL PATCH FOR CHEMOTHERAPY TREATMENT

(51) International classification	:A61B5/00, A61B5/01, A61B5/0245, A61M37/00, A61N5/00, G16H20/40	(71)Name of Applicant : 1)Manipal Academy of Higher Education Address of Applicant :Madhav Nagar, Manipal, Karnataka, India - 576104 -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number	:NA	1)JAYANTHI, Anuhya
Filing Date	:NA	Address of Applicant :Manipal college of Dental Sciences (MCODS), Manipal Academy of Higher Education, Madhav Nagar, Manipal, Karnataka, India - 576104 -----
(62) Divisional to Application Number	:NA	2)KOCHHAR, Hargun
Filing Date	:NA	Address of Applicant :Manipal college of Dental Sciences (MCODS), Manipal Academy of Higher Education, Madhav Nagar, Manipal, Karnataka, India - 576104 -----

(57) Abstract :
The present invention is related to a real time monitoring enabled transdermal patch for chemotherapy treatment. The present invention featuring microsensors and an associated app to revolutionize patient care. a microsensor/microchip is integrated in the outer backing layer. These microsensor/microchip is easily removable from the pocket provided in the outer most backing layer of the patch is reusable and helps monitor vital signs, including heart rate, body temperature and respiratory rate. data from the sensors is processed by a microcontroller and transmitted to a user-friendly app via Bluetooth.The app provides real-time vital sign monitoring, data visualization, and drug dosage control. It ensures user authentication, data security, and offers alerts for abnormal vital signs or medication schedules.

No. of Pages : 13 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202341086111 A

(19) INDIA

(22) Date of filing of Application :17/12/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : A TRANSDERMAL PATCH FOR CHEMOTHERAPY OF ORAL CANCER

(51) International classification :A61K9/70, A61M37/00, A61M5/14, A61M5/168, A61M5/48
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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2)KOCHHAR, Hargun
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(57) Abstract :

The present invention is related to a transdermal patch for chemotherapy treatment of oral cancer. a flexible and impermeable backing layer to protect the patch's integrity. The proposed patch consisting of a solid-state reservoir containing a low dosage oral cancer drug [drug of choice for oral cancer], a membrane to control the release rate of cisplatin and an adhesive layer for skin attachment integrated with microneedle.

No. of Pages : 7 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :21/12/2023

(21) Application No.202341087808 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A DENTAL COMFORT KIT FOR ANXIETY REDUCTION

(51) International classification :A61C19/00,
G09B23/28
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application :NA
Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention is related a dental comfort kit for anxiety reduction. Comprising a customizable box with a dry-erase surface, interactive mock dental tools, and an actual dental instruments, the kit creates a welcoming environment. Herein the box will have a surface that can be drawn on with non-toxic dry-erase markers

No. of Pages : 6 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :21/12/2023

(21) Application No.202341087809 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A PEDIATRIC DENTAL COMFORT KIT FOR ANXIETY REDUCTION IN CHILDREN

(51) International classification :A61C19/00
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention is related a pediatric dental comfort kit for anxiety reduction in children. the pediatric dental comfort kit is a solution aimed at mitigating anxiety and fear in children during dental visits. Comprising a customizable box with a dry-erase surface, interactive mock dental tools, and a comprehensive list of actual dental instruments, the kit creates a welcoming environment. An innovative arotor acts as an electrical eraser, mimicking the sound of a real arotor, providing a reassuring experience. The primary goal is to familiarize children with the dental setting, foster positive associations with dental tools, and instill early oral hygiene awareness.

No. of Pages : 7 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :21/12/2023

(21) Application No.202341087810 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN ERGONOMIC DENTAL CHAIR WITH ADJUSTABLE TRAY

(51) International classification :A47C7/46, A61C19/00,
A61G15/08
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to :NA
Application Number :NA
Filing Date :NA
(62) Divisional to Application :NA
Number :NA
Filing Date :NA

(71)Name of Applicant :

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(57) Abstract :

The present invention is related to an ergonomic dental chair with adjustable tray. This ergonomic dental chair incorporates several essential features, including saddle-style seating with lumbar support, a lower back massager for added comfort, adjustable seating height, a detachable armrest with a magnetic and detachable tray, and locking wheels for enhanced chair stability during dental procedures. In addition, the materials used in the chair's construction are compatible with dental sterilization processes, promoting hygiene and patient safety. The detachable armrest is height-adjustable, catering to both left-handed and right-handed practitioners, enhancing versatility. Furthermore, a minimal vibration massager ensures uninterrupted dental treatments and patient care. The ErgoDent chair is a testament to our commitment to improving the well-being and working conditions of dental professionals while reducing the risk of musculoskeletal disorders and supporting the longevity of their careers.

No. of Pages : 8 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :21/12/2023

(21) Application No.202341087811 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A CHAIR WITH ADJUSTABLE TRAY FOR DENTAL PROCEDURES

(51) International classification :A47C0007540000, A47C0007620000, B60N0002750000, A47C0007700000, A61G0005100000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

The present invention is related to chair with adjustable tray for dental procedures wherein an adjustable seating height and armrests provided and the arm rest comes with an added magnetic and detachable tray that can be used for storage during procedures and the wheels of the chair provided with locking systems that help with stability.

No. of Pages : 7 No. of Claims : 1

(54) Title of the invention : AN INTERACTIVE SCREEN

(51) International classification	:A61B0005000000, E04H0001120000, A41D0013120000, G10K0011162000, G03B0021620000	(71)Name of Applicant : 1)Manipal Academy of Higher Education Address of Applicant :Madhav Nagar, Manipal, Karnataka, India - 576104 -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number	:NA	1)SIDDHANT CHHABRA
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(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
The present invention is related to an interactive screen equipped with engaging games and puzzles, to alleviate patient anxiety and restlessness during their wait. Herein the use of recycled scrubs as the primary material underscores the invention's commitment to sustainability, as it not only repurposes materials but also contributes to effective sound absorption. Overall, this invention revolutionizes healthcare waiting rooms, promoting patient comfort, privacy, and environmental responsibility

No. of Pages : 6 No. of Claims : 2

(54) Title of the invention : A WINDSHIELD DEFOGGING APPARATUS

(51) International classification (86) International Application No (87) International Publication No (61) Patent of Addition to Application Number (62) Divisional to Application Number Filing Date	:B60S0001480000, B60S0001340000, B60S0001040000, B60R0001000000, B60Q0009000000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)Manipal Academy of Higher Education Address of Applicant :Madhav Nagar, Manipal, Karnataka, India - 576104 ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)KRISH PANDEY Address of Applicant :Manipal college of Dental Sciences (MCODS), Manipal Academy of Higher Education, Madhav Nagar, Manipal, Karnataka - 576104 ----- 2)SHAMANTHA SHASTRI Address of Applicant :Manipal college of Dental Sciences (MCODS), Manipal Academy of Higher Education, Madhav Nagar, Manipal, Karnataka - 576104 ----- 3)AKARSH P. POOJARY Address of Applicant :Manipal college of Dental Sciences (MCODS), Manipal Academy of Higher Education, Madhav Nagar, Manipal, Karnataka - 576104 ----- 4)ARNAV N. UDUPA Address of Applicant :Manipal college of Dental Sciences (MCODS), Manipal Academy of Higher Education, Madhav Nagar, Manipal, Karnataka - 576104 -----

(57) Abstract :

The present invention is related to a windshield cleaning apparatus designed specifically for buses, addressing the challenge of condensation buildup on the internal side of windshields during adverse weather conditions. The apparatus comprises an External Unit, Extender Unit, Flexible Chain Mechanism, Neodymium Magnet Couplings, Internal Unit, Chain Connectors, and an Angular Socket. It operates solely on mechanical energy derived from the existing wiper system and effectively clears condensation from the internal windshield surface. The system's adaptability to various bus models without altering the existing design enhances driver safety by ensuring continuous visibility in adverse weather, such as monsoons or cold, hilly terrains. Its synchronized condensation clearing mechanism enhances driver visibility, mitigating potential hazards caused by impaired vision due to condensation, thereby promoting safer driving experiences.

No. of Pages : 16 No. of Claims : 1

(54) Title of the invention : A COLLAPSIBLE INTERACTIVE SCREEN

(51) International classification :G06Q0010060000, G16H0080000000, G06Q0010100000, G10K0011162000, G16H0040200000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Manipal Academy of Higher Education Address of Applicant :Madhav Nagar, Manipal, Karnataka, India - 576104 ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)SIDDHANT CHHABRA Address of Applicant :Manipal college of Dental Sciences (MCODS), Manipal Academy of Higher Education, Madhav Nagar, Manipal, Karnataka - 576104 -----

(57) Abstract :
The present invention is related to a collapsible interactive screen. The invention presents a multifaceted solution for healthcare waiting rooms, focusing on dental clinics and other clinical environments. It introduces collapsible screens crafted from recycled scrubs, serving a pivotal role in enhancing patient experiences. These screens offer dual functionality by providing visual and sound privacy, fostering confidential consultations, and reducing noise disruptions. Furthermore, the innovation incorporates interactive designer screens, equipped with engaging games and puzzles, to alleviate patient anxiety and restlessness during their wait. The use of recycled scrubs as the primary material underscores the invention's commitment to sustainability, as it not only repurposes materials but also contributes to effective sound absorption. Overall, this invention revolutionizes healthcare waiting rooms, promoting patient comfort, privacy, and environmental responsibility.

No. of Pages : 6 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202341088905 A

(19) INDIA

(22) Date of filing of Application :26/12/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : A UNIVERSAL SIGNAGE DESIGN FOR WAYFINDING

(51) International classification :G09B0021000000, G01C0021200000, H04N0021414000, G09F0027000000, H04N0021441500

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention is related to a universal signage design for wayfinding. the universal signage design addresses the diverse navigation needs of individuals in public spaces. this invention aims to provide a comprehensive solution for independent wayfinding, accommodating people of all ages, genders, abilities, and disabilities. By incorporating elements such as titles in multiple languages and Braille, self-designed icons, audio prompts (108) for digital wayfinding, the signage ensures accessibility for a broad spectrum of users. The use of embossed stainless-steel baseplates guarantees durability and longevity. This inclusive signage design revolutionizes accessibility, breaking down barriers related to language and visual impairment, ultimately enhancing the experience of navigating public spaces for all.

No. of Pages : 8 No. of Claims : 2

(54) Title of the invention : AN OPTIMIZATION OF LIGHT WEIGHT AIRCRAFT FIXED WING STRUCTURE

(51) International classification :G06F0030230000, B64C0003000000, G06F0030150000, G06F0111060000, G05B0019409900 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Manipal Academy of Higher Education Address of Applicant :Madhav Nagar, Manipal, Karnataka, India - 576104 ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)KRUPAL PRAJAPAT Address of Applicant :Department of Aeronautical and Automobile Engineering, Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal, Karnataka, India -576104 ----- 2)VISHNU G. NAIR Address of Applicant :Associate Professor, Department of Aeronautical and Automobile Engineering, Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal, Karnataka, India -576104 ----- 3)SRINIVAS G Address of Applicant :Assistant Professor, Department of Aeronautical and Automobile Engineering, Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal, Karnataka, India- 576104 -----

(57) Abstract :

The present invention is related to an optimization of light weight aircraft fixed wing structure. The invention presents a comprehensive approach to design and optimize lightweight fixed-wing aircraft structures using advanced computational methodologies. By focusing on reducing the weight of the aircraft wing, the invention employs techniques such as ply shuffling, stocking, and optimization algorithms. It encompasses a three-phase process involving finite element modeling, material property selection, and iterative analysis to achieve optimal designs. Through this process, the invention aims to significantly decrease the weight of the wing while ensuring structural integrity and performance. The invention not only demonstrates the effectiveness of these optimization techniques but also highlights their relevance in contemporary aerospace engineering practices. Overall, this approach offers a promising solution for designing lightweight yet robust aircraft structures, enhancing efficiency, and performance in the aerospace industry.

No. of Pages : 21 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202341088907 A

(19) INDIA

(22) Date of filing of Application :26/12/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : A UNIVERSAL SIGNAGE DESIGN FOR WAYFINDING

(51) International classification :G01C0021200000, H04L0025030000, G09F0015000000, B64D0045000000, B64D0047020000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention is related to a universal signage design for wayfinding. The proposed design consisting of a QR codes for digital wayfinding, the signage ensures accessibility for a broad spectrum of users. And said QR codes configured on a strong metal plate attached to a wall at a height everyone can reach

No. of Pages : 7 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :28/12/2023

(21) Application No.202341089532 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN INTERACTIVE STRESS RELIEVER PUZZLE TOY FOR CHILDREN

(51) International classification :A61M0021000000, A61P0025220000, A61M0021020000, A63F0009060000, C07J0041000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention is related to an interactive stress-relieving puzzle toy for children. The invention pertains to a Puzzled Interactive Creative Engaging (PICE) block, an innovative and sustainable device designed to alleviate stress, anxiety, and restlessness in children within various child-centered spaces, such as waiting areas and kindergarten environments. The PICE block is primarily for tactile interaction and is constructed from eco-friendly bamboo material, treated with chalk paint, and coated with beeswax for durability. This engaging device incorporates a circuit board housing a microcontroller, a pushbutton interface, a Piezo element, and a resistor, enabling a wide range of interactive activities. Notably, the integration of auditory effects via the Piezo element, controlled by microcontroller, i.e. the Arduino Uno, contributes to creating a positive distraction and fostering a comforting and engaging atmosphere for children. Once the blocks are fixed in a predetermined pattern provided to the children, the music plays from the set. Its adaptability for commercial use extends its potential into households and mall play areas, promising to redefine child-centric spaces and enhance the well-being of young individuals.

No. of Pages : 10 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202347041223 A

(19) INDIA

(22) Date of filing of Application :16/06/2023

(43) Publication Date : 09/02/2024

(54) Title of the invention : METHODS AND SYSTEMS FOR NEGATIVE ION-BASED POLLUTION REDUCTION

(51) International classification :A61L 9/22, B01D
53/34

(31) Priority Document No :17/127273

(32) Priority Date :18/12/2020

(33) Name of priority country :-----

(86) International Application No :PCT/US2021/072991

Filing Date :17/12/2021

(87) International Publication No :WO 2022/133485

(61) Patent of Addition to Application :NA

Number :NA

Filing Date

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

Provided are purification systems and methods of using such systems for purifying various environments, such as indoor air, outdoor air, vehicle emissions, and industrial emissions. A purification system comprises an ionizing purifier having a substrate and an active coating. The active coating comprises a pyroelectric and/or piezoelectric material. During the operation, an incoming stream is directed toward the active coating while controlling the average pressure exerting on the active coating. This contact between the incoming stream and the active coating generates negative ions from components of the incoming stream via change in temperature and pressure/force/vibration, etc. The negative ions then interact with pollutants, transforming them into safe, purified materials of the outgoing stream. Unlike the pollutants in the incoming stream, the purified materials are non-harmful, and/or can be easily removed from the outgoing stream, e.g., by filtering and/or other separation techniques.

No. of Pages : 18 No. of Claims : 25

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :03/01/2024

(21) Application No.202441000457 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : CRASH GUARD SYSTEM TO PROTECT MOTORCYCLE

(51) International classification :B64D0045000000, E01F0015140000, B60K0001040000, B62J0027000000, B25F0005020000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention discloses a system and a method to protect a motorcycle (500) by a crash guard system. The disclosed crash guard system mainly comprises a crash tube (100), a reinforcement member (200) and a cover (300) wherein the cover (300) is an outermost visible part of the crash guard system after assembly of the motorcycle (500). The cover (300) is mounted on the reinforcement member (200) and fastened to a side panel of the motorcycle (500). Further, the present crash guard system is configured to bear an impact load in stages wherein the cover (300) is a first impact bearing member, the reinforcement member (200) is a second impact bearing member, and the crash tube (100) is a third impact bearing member. Moreover, said crash guard system ensures paramount safety to a battery pack (504) and side panels of the motorcycle (500). [To be published with figure 4]

No. of Pages : 23 No. of Claims : 13

(54) Title of the invention : MULTI OBJECTIVE OPTIMIZATION TECHNIQUE FOR TASK SCHEDULING IN CLOUD COMPUTING ENVIRONMENT

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(51) International classification	:G06F0009500000, G06Q0010060000, G06N0003000000, G06F0009480000, G06F0009455000	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
Cloud platforms scheduling resources based on the demand of the tasks submitted by the users, is critical to the cloud provider's interest and customer satisfaction. In this paper, we propose a multi-objective cloud task scheduling algorithm based on an evolutionary multi-factorial optimization algorithm. First, we choose execution time, execution cost, and virtual machines load balancing as the objective functions to construct a multi-objective cloud task scheduling model. Second, the multi-factor optimization (MFO) technique is applied to the task scheduling problem, and the task scheduling characteristics are combined with the multi-objective multi-factor optimization (MO-MFO) algorithm to construct an assisted optimization task. Finally, a dynamic adaptive transfer strategy is designed to determine the similarity between tasks according to the degree of overlap of the MFO problem and to control the intensity of knowledge transfer. The results of simulation experiments on the cloud task test dataset show that our method significantly improves scheduling efficiency, compared with other evolutionary algorithms (EAs), the scheduling method simplifies the decomposition of complex problems by a multi-factor approach, while using knowledge transfer to share the convergence direction among sub-populations, which can find the optimal solution interval more quickly and achieve the best results among all objective functions.

No. of Pages : 17 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :04/01/2024

(21) Application No.202441000627 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : INTERNET OF THINGS BASED CAMERA FOR HEALTHCARE MANAGEMENT DETECTION IN MEDICAL ENVIRONMENT ANALYSIS

(51) International classification :G16H0040200000, G06Q0010100000, G06N0020000000, G06Q0010060000, H04W0004700000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The power of the Internet has impacted various industries, especially the healthcare industry. With the rapid population growth and advancement of various sensor technologies and smart devices, the demand for quality healthcare services has increased in the past few years. At the same time, Internet of Things (IoT) technology makes intelligent objects communicate with each other by connecting all the objects without human intervention. IoT facilitated services and technologies in healthcare to provide low-cost and efficient service delivery to patients and consumers. It reduces the patient's hospital stay time and efficient information exchange by providing cost-effective healthcare services. This systematic review analyzes different technologies, core applications, datasets, algorithms, challenges, and limitations of IoT in the healthcare sector.

No. of Pages : 21 No. of Claims : 5

(51) International classification :G06Q0030020000, G06Q0030060000, G06Q0030000000, A61K0036740000, G06Q0020020000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to :NA Application Number :NA Filing Date :NA (62) Divisional to Application :NA Number :NA Filing Date :NA		(71)Name of Applicant : 1)Mrs.M.RAMYA KRISHNA Address of Applicant :ASSISTANT PROFESSOR, BASIC SCIENCE, VISHNU INSTITUTE OF TECHNOLOGY, BHIMAVARAM, ANDHRA PRADESH- 534202, INDIA Bhimavaram ----- 2)Dr.R.LAVANYA 3)Dr. BISWO RANJAN MISHRA 4)Mr.J LOGESHWARAN 5)Dr. M.V.K. SRINIVASA RAO 6)Dr.NAGALA SHYAM VENKATA NOOKA RAJU 7)Mrs. SO. PRIYA 8)Dr. K. LALITHAKAMESWARI 9)Dr. SHOBHA EDWARD 10)Mrs. P.GAYATHRI Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Mrs.M.RAMYA KRISHNA Address of Applicant :ASSISTANT PROFESSOR, BASIC SCIENCE, VISHNU INSTITUTE OF TECHNOLOGY, BHIMAVARAM, ANDHRA PRADESH- 534202, INDIA Bhimavaram ----- 2)Dr.R.LAVANYA Address of Applicant :ASST PROFESSOR AND HEAD, CORPORATE SECRETARYSHIP, DHANRAJ BAID JAIN COLLEGE, CHENNAI, TAMILNADU, 600097, INDIA Chennai ----- 3)Dr. BISWO RANJAN MISHRA Address of Applicant :ASSISTANT PROFESSOR, COMMERCE, DDCE, UTKAL UNIVERSITY, BHUBANESWAR, ODISHA- 751004, INDIA Bhubaneswar ----- 4)Mr.J LOGESHWARAN Address of Applicant :RESEARCH SCHOLAR, DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING, SRI ESHWAR COLLEGE OF ENGINEERING, COIMBATORE-TAMIL NADU Coimbatore ----- 5)Dr. M.V.K. SRINIVASA RAO Address of Applicant :DEAN, SCHOOL OF COMMERCE AND MANAGEMENT STUDIES, SANDIP UNIVERSITY, SIJOU, MADHUBANI, BIHAR- 847235 Madhubani ----- 6)Dr.NAGALA SHYAM VENKATA NOOKA RAJU Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF COMMERCE, KONERU LAKSHMAIAH DEEMED TO BE UNIVERSITY, GUNTUR-522502, ANDHRA PRADESH, INDIA Guntur ----- 7)Mrs. SO. PRIYA Address of Applicant :ASSISTANT PROFESSOR, COMMERCE CA, DR.SNS RAJALAKSHMI COLLEGE OF ARTS AND SCIENCE, COIMBATORE, TAMILNADU-641046, INDIA Coimbatore ----- 8)Dr. K. LALITHAKAMESWARI Address of Applicant :ASSISTANT PROFESSOR , CORPORATE SECRETARYSHIP , K.C.S.KASI NADAR COLLEGE OF ARTS & SCIENCE , CHENNAI, TAMILNADU -600 021, INDIA Chennai ----- 9)Dr. SHOBHA EDWARD Address of Applicant :PRINCIPAL, ASSOCIATE PROFESSOR & HEAD OF THE DEPARTMENT OF CORPORATE SECRETARYSHIP, K.C.S.KASI NADAR COLLEGE OF ARTS & SCIENCE, CHENNAI, TAMILNADU--600021, INDIA Chennai ----- 10)Mrs. P.GAYATHRI Address of Applicant :ASSISTANT PROFESSOR, COMMERCE, K.C.S KASI NADAR COLLEGE OF ARTS & SCIENCE., CHENNAI, TAMILNADU:- 600021, INDIA Chennai -----

(57) Abstract :
ABSTRACT Impact of Launch Program D2C in mantra made in India's Fashion Brand The D2C (Direct-to-Consumer) launch program for the 'Made in India' fashion brand Mantra has dramatically impacted the brand and the fashion industry in India. D2C is an online sales approach where businesses directly sell their products and services to consumers, without the involvement of third-party retailers. With the launch of the Mantra program, consumers have direct access to the brand's products, allowing customers to purchase goods at lower prices and with better customer service. Mantra's D2C launch has led to reduced costs for the company, as less reliance on third-party retailers has decreased costs associated with marketing and customer service. This allows Mantra to be more agile and competitive in the online fashion market. Furthermore, the launch of the D2C program has also led to improved convenience for Mantra's customers; customers have direct access to the brand's products, allowing them to conveniently purchase goods through Mantra's website. With the direct-to-consumer model, customers can also receive personalized customer service to ensure a high level of satisfaction. The D2C launch program for Mantra has also impacted the fashion industry in India. By bypassing third-party retailers, Mantra has been able to introduce new, innovative products to the market, allowing customers to have more choices. This increased competition has also led to increased consumer awareness; customers are now more likely to research and compare different brands before making a purchase. This is essential for the growth of the fashion industry in India. Overall, the impact of the D2C launch program for Mantra has been largely positive. By directly selling products to customers, the brand has been able to save costs, improve customer convenience, and increase overall competition in the fashion industry. This has allowed Mantra to become a leader in the online fashion market in India, and provides a model for how other brands can leverage D2C to compete in the digital space.

No. of Pages : 11 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000630 A

(19) INDIA

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(54) Title of the invention : COMPOSITE FIRE-RESISTANT PLASTER FOR THERMAL PROTECTION OF STRUCTURAL CONCRETE

(51) International classification :C04B0111000000, C04B0111280000, C04B0041500000, A62B0017000000, C04B0028140000

(86) International Application No :NA
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(57) Abstract :

TITLE: COMPOSITE FIRE-RESISTANT PLASTER FOR THERMAL PROTECTION OF STRUCTURAL CONCRETE

APPLICANT: KARUNYA INSTITUTE OF TECHNOLOGY AND SCIENCES ABSTRACT The present invention discloses a cost effective Fire-Resistant Cementitious Plaster Composition configured to be coated on Structural Concrete for thermal protection thereby safeguarding from extreme temperatures. The cost effective Fire-Resistant Cementitious Plaster Composition of the present invention comprises of binder consisting of cement and protective material consisting of characterized combination of effective amounts of Limestone, Alumina, Bauxite, Copper slag, Kaolinite clay, and Waterglass. The present invention also discloses a process of preparation of cost effective Fire-Resistant Cementitious Plaster Composition configured to be coated on Structural Concrete for thermal protection thereby safeguarding from extreme temperatures. The process of the present invention comprises of mixing thoroughly binder consisting of cement and protective material consisting of homogeneous blend of characterized combination of effective amounts of Limestone, Alumina, Bauxite, Copper slag, Kaolinite clay, and Waterglass.

No. of Pages : 27 No. of Claims : 8

(54) Title of the invention : VELOCITY INDUCED THERMOSYPHON SYSTEM EMBEDDED WITH CONVERGENT DIVERGENT NOZZLE TO ENHANCE THE VELOCITY OF THE WORKING FLUID

(51) International classification	:F28D0015020000, F28D0015040000, H05K0007200000, F25B0023000000, H01L0023427000	(71)Name of Applicant : 1)KARUNYA INSTITUTE OF TECHNOLOGY AND SCIENCES Address of Applicant :KARUNYA INSTITUTE OF TECHNOLOGY AND SCIENCES, KARUNYA NAGAR, COIMBATORE COIMBATORE TAMIL NADU INDIA 641114 Coimbatore ----- Name of Applicant : NA Address of Applicant : NA
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Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
TITLE: VELOCITY INDUCED THERMOSYPHON SYSTEM EMBEDDED WITH CONVERGENT DIVERGENT NOZZLE TO ENHANCE THE VELOCITY OF THE WORKING FLUID APPLICANT: KARUNYA INSTITUTE OF TECHNOLOGY AND SCIENCES ABSTRACT The present invention discloses a cutting-edge thermosyphon system for enhancing the velocity of vapor and condensate, thereby ensuring efficient heat dispersion, and maximizing heat transfer performance. The thermosyphon system of the present invention comprises of a. an outer shell in the shape of divergent-convergent-divergent nozzle[9]having evaporator region[8] with working fluid[14] on one divergent end and condenser region[10] on other divergent end as transport section to control the vapor[12] and condensate[13] velocity, maintaining a minimized temperature difference between the evaporator[8] and condenser regions[10]; b. an internal evaporator[2] disposed in the evaporator region[8] and equipped with a provision[1] for mounting a hot body directly into the thermosyphon thereby ensuring heat dissipation from all sides of hot body, and a closure[3b] for sealing the outer-shell[9] at the evaporator region[8] and c. an internal condenser[5] disposed in the condenser region[10] and equipped with a closure[3a] for sealing the outer-shell[9] at the condenser region[10].

No. of Pages : 22 No. of Claims : 9

(54) Title of the invention : ANALYSIS OF HOW IMPORTANT FLIPKART E-COMMERCE BUSINESS MARKET PLACE IN INDIA

(51) International classification :G06Q0030020000, G06Q0030060000, G06Q0010060000, G06Q0030000000, A61K0036740000 (86) International Application No :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA (62) Divisional to Application Number :NA		(71)Name of Applicant : 1)Dr.N.NANCY FERNANDEZ Address of Applicant :HEAD OF THE DEPARTMENT , COMMERCE, P.K.R. ARTS COLLEGE FOR WOMEN , GOBICHETTIPALAYAM , TAMILNADU -638476, INDIA Gobichettipalayam ----- 2)Mrs.R.SUREKA 3)Dr.G.VENKATESWARAN 4)Dr. N.SUREGA 5)Ms.S.KIRUBHARANI 6)Dr.AMARDEEP BAJPAI 7)Mr. J LOGESHWARAN 8)Dr.P.VELLINGIRI 9)DR.S.ARULRAJ 10)Dr. PRIYANKA RASTOGI 11)Mr. K.S MOHAN 12)Dr. S N ARJUN KUMAR Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr.N.NANCY FERNANDEZ Address of Applicant :HEAD OF THE DEPARTMENT , COMMERCE, P.K.R. ARTS COLLEGE FOR WOMEN , GOBICHETTIPALAYAM , TAMILNADU -638476, INDIA Gobichettipalayam ----- 2)Mrs.R.SUREKA Address of Applicant :ASSISTANT PROFESSOR, COMMERCE, P.K.R. ARTS COLLEGE FOR WOMEN , GOBICHETTIPALAYAM , TAMILNADU – 638476, INDIA Gobichettipalayam ----- 3)Dr.G.VENKATESWARAN Address of Applicant :ASSISTANT PROFESSOR, COMMERCE, KALASALINGAM BUSINESS SCHOOL, KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION, DEEMED TO BE UNIVERSITY,ANAND NAGAR,KRISHNANKOIL, SRIVILLIPUTHUR,VIRUDHUNAGAR DISTRICT 626126, INDIA. Virudhunagar ----- 4)Dr. N.SUREGA Address of Applicant :ASSISTANT PROFESSOR , COMMERCE P.K.R. ARTS COLLEGE FOR WOMEN., GOBICHETTIPALAYAM-638476, TAMILNADU, INDIA Gobichettipalayam ----- 5)Ms.S.KIRUBHARANI Address of Applicant :ASSISTANT PROFESSOR, COMMERCE, P.K.R. ARTS COLLEGE FOR WOMEN, ERODE, TAMILNADU-638476, INDIA Erode ----- 6)Dr.AMARDEEP BAJPAI Address of Applicant :HEAD COMMERCE AND ASSISTANT PROFESSOR, COMMERCE AND MANAGEMENT, SCHOOL OF COMMERCE AND MANAGEMENT STUDIES, SANDIP UNIVERSITY, NASHIK,, MAHARASHTRA-422 213,, INDIA Nashik ----- 7)Mr. J LOGESHWARAN Address of Applicant :RESEARCH SCHOLAR, DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING, SRI ESHWAR COLLEGE OF ENGINEERING, COIMBATORE- TAMIL NADU Coimbatore ----- 8)Dr.P.VELLINGIRI Address of Applicant :ASSOCIATE PROFESSOR AND HEAD, COMMERCE (CA), VET INSTITUTE OF ARTS AND SCIENCE (CO-ED) COLLEGE, ERODE, TAMILNADU-638012 INDIA Erode ----- 9)DR.S.ARULRAJ Address of Applicant :ASSOCIATE PROFESSOR AND HEAD, COMMERCE, VET INSTITUTE OF ARTS AND SCIENCE (CO-ED) COLLEGE, ERODE, TAMILNADU,- 638012, INDIA Erode ----- 10)Dr. PRIYANKA RASTOGI Address of Applicant :PROFESSOR, BUSINESS ADMINISTRATION , RAJSHREE INSTITUTE OF MANAGEMENT AND TECHNOLOGY, BAREILLY, UTTAR PRADESH- 243122, INDIA Bareilly ----- 11)Mr. K.S MOHAN Address of Applicant :ASSISTANT PROFESSOR, INFORMATION TECHNOLOGY, SNS COLLEGE OF TECHNOLOGY, COIMBATORE, TAMILNADU- 641035, INDIA Coimbatore ----- 12)Dr. S N ARJUN KUMAR Address of Applicant :ASSISTANT PROFESSOR (C), DEPARTMENT OF BUSINESS MANAGEMENT, UNIVERSITY PG COLLEGE PALAMURU UNIVERSITY, MAHABUBNAGAR, TELANGANA-509001, INDIA Mahabubnagar -----

(57) Abstract :
ABSTRACT Analysis of how important flipkart E-Commerce Business Market place in India Flipkart is one of the leading e-commerce business marketplaces in India with a wide variety of goods and services. The company offers a wide variety of options for customers and its success in the Indian e-commerce market is a testament to its innovative business strategy. Flipkart has managed to gain an edge over its competitors by providing multiple benefits and advantages to Indian shoppers. With its wide selection of products, convenient payment options, reliable delivery services, incredible customer service, amazing discounts, and other value added services, Flipkart has become an indisputable leader in the e-commerce business in India. The company has successfully established strong brand loyalty in the Indian market by providing unparalleled customer service and innovating on products. Flipkart has also become one of the most trusted e-commerce sites in India by offering a range of services like concession for the return of faulty items, secure payment gateway, and 24x7 customer support. Further, Flipkart's app-enabled services and subscriptions have increased customer satisfaction and customer retention. Overall, Flipkart has emerged as one of the major e-commerce players in India by providing a convenient, economical, and secure online shopping experience. Its aggressive marketing strategies and user-friendly interface have enabled it to acquire a formidable user base. In addition, the company's partnership with Myntra, Jabong, and other big retailers have further deepened its dominant position in the Indian market. The growth of the e-commerce market in India can be attributed to an increased rate of digitization and a rise in consumer adoption of online shopping. Flipkart, one of the leading e-commerce marketplace in India, is a key contributor to this trend. By providing a wide product range, competitive prices, attractive discounts, and quick delivery, the e-commerce platform has successfully tapped into the growing opportunities in the Indian market. To better understand the importance of Flipkart within the Indian market, this study provides a thorough analysis of the platform. Using a combination of quantitative and qualitative techniques, this paper evaluates Flipkart's financial performance, customer base, and competitive landscape. Additionally, this paper also assesses the opportunities and challenges that the platform faces to help identify new strategies and tactics to further its success in the Indian market. Overall, the analysis in this paper shows that Flipkart is an important player in the Indian e-commerce market. Despite the entry of other competitors, Flipkart continues to enjoy a strong market presence with its strong financial performance, large customer base, and wide product range. By leveraging these capabilities, Flipkart can identify strategies to further solidify its position in the Indian market.

No. of Pages : 11 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :04/01/2024

(21) Application No.202441000637 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : LABORATORY EVALUATION OF REJUVENATED RECYCLED ASPHALT MIXES

(51) International classification :E01C0019100000, C04B0026260000, C04B0111000000, G01N0033420000, E01C0019050000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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This article seeks to assess the effectiveness of rejuvenated recycled asphalt mixes containing nano silica at different percentages. Recycled Asphalt Pavement (RAP) material is typically employed in Recycled Asphalt Mixes (RAM) owing to the engineering and commercial value associated with aggregate material and aged binder. The variety of RAP has a considerable impact on the performance of recycled mixtures. During this evaluation process, bitumen content, RAP percentage and % of nano-silica, were regarded as independent factors. The Marshall properties were predicted using these independent factors through the Taguchi design of the experiment approach. The experimental effort was minimised by using Taguchi's approach to the design of experiments. Recycled mixes produced herein were formulated using Taguchi's L-9 orthogonal array. Equations predicted were derived based on such results, the prediction equations were then assessed and ascertained with actual results of experiments and validated using the test set. The Marshall properties, indirect tensile strength (ITS), tensile strength ratio, and rutting characteristics of the recycled mixtures produced herein were assessed. According to the findings, the variability in the recycled asphalt concrete mixture was minimised by adding a greater volume of binder modified with nano-silica.

No. of Pages : 23 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000638 A

(19) INDIA

(22) Date of filing of Application :04/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : INNOVATIVE SELF-COMPACTING AND SELF-CURING CONCRETE FORMULATIONS UTILIZING FLY ASH AND POLYETHYLENE GLYCOL FOR ENHANCED MECHANICAL PROPERTIES

(51) International classification :C04B0028040000, C04B0111000000, G01N0033380000, B28C0007020000, C04B0028180000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

[008] Self-Compacting Concrete is broadly connected in numerous development ventures because of its fresh and hardened properties. he innovation involves using Crushed Rock Powder (CRP) as a viable alternative to river sand, incorporating Fly Ash, and employing Poly Ethylene Glycol (PEG) for self-curing at ambient room temperature. Diverse SCC mixtures were developed for both M-25 and M-40 concrete grades, where normal coarse aggregate was replaced with CRP and PEG was added in volume percentages of 1%, 2%, and 3%. Additionally, the cement content was consistently replaced with Fly Ash. The chemical admixtures, including Superplasticizer (SP) and Viscosity Modifying Agent (VMA), were optimized through experimental tests. Various fresh concrete tests, such as slump, J-ring, V-funnel, U-box, and L-box, were conducted, and the properties of hardened concrete, including Compressive, Split Tensile, and Flexural Strength, were determined. For each mixture, a total of 108 specimens, including cubes, cylinders, and beams, were cast. The specimens were subjected to a self-curing process using PEG at ambient room temperature for 7, 14, 28, and 56 days. The study aimed to evaluate the properties of such SCC and to assess the suitability of PEG for self-curing. Remarkably, the mechanical properties exhibited almost equal strength when river sand was replaced with CRP up to 20% for both 1.50% and 2.00% PEG content, in comparison to normal SCC cured with water and traditional conventional concrete. This innovation offers a sustainable and efficient approach to SCC production and curing.

No. of Pages : 15 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000639 A

(19) INDIA

(22) Date of filing of Application :04/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SEISMIC BEHAVIOUR OF TWISTED TALL BUILDING WITH DIFFERENT ANGLE OF ROTATION

(51) International classification :E04H0009020000, G01M0007020000, G01N0021552000, E04B0001980000, H01Q0021200000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)REVA University Address of Applicant :REVA University Rukmini Knowledge Park, Kattigenahalli, Yelahanka, Bengaluru – 560064 Bengaluru -- ----- 2)Bhanusuresh 3)Navya K S Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Bhanusuresh Address of Applicant :Bhanusuresh School of Civil Engineering, REVA University, Bengaluru –560064 bhanusuresh.hs@reva.edu.in Bengaluru ----- 2)Navya K S Address of Applicant :Navya K S School of Civil Engineering, ACSCE, Bengaluru –560064 navyaks@gmail.com Bengaluru ----- -----

(57) Abstract :

[008] In the present investigation we have compared between the twisted tower and regular structure. Here we have considered building height of 20 storied, 40 storied, and 60 storied structure and twisted angles are considered as 1 degree, 2 degree and 3 degree. Here we have considered two plans as symmetric structure and asymmetric for all different heights of building. The symmetric plan consist of number of bays kept 8 along both the direction and bay size kept as 4m with storey height being 3m. the asymmetric plan consist of 8 bays along x direction and 6 bays along y direction and bay size kept as 4m with storey height being 3m. the building is analysed by considering zone IV by response spectrum method using Etabs 2016 software. The parameters are studied are lateral storey displacement, storey drift, base shear, storey stiffness and modal time period. We have concluded that the conventional structure performs better than the twisted structure under the seismic actions.

No. of Pages : 9 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000640 A

(19) INDIA

(22) Date of filing of Application :04/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : DESIGN AND ANALYSIS OF MATERIAL HANDLING SYSTEM TO IMPROVE PRODUCTION

(51) International classification :G06Q0010080000, G06F0011070000, G06Q0010060000, G01M0007020000, G06T0019200000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
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(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

A material Handling System is a way to accomplish cost reduction in production operations since they directly impact production. This study aims to design an in-house Material Handling system that could be efficient for the production it serves. The material handling system design was made to pick and place the head expander on the vibrating machine from the floor beside the machine. The vibration testing components are placed on the head expander where it is placed on the vibration machine to check the frequencies the component can absorb. This components are used in aerospace industries. The material used for building the Material Handling System is mild steel. By analyzing the possibilities from literature review and empirical study first problems and challenges related to material handling system are identified, then possible features that the system should possess are observed and design is built according to the selected features. The design of this Material Handling System is made by using Solid works software. The developed model is further analyzed by the boundary condition for total deformation when the constant load acts on the model at different places.

No. of Pages : 9 No. of Claims : 3

(54) Title of the invention : DESIGN AND DEVELOPMENT OF AN AI BIONIC ARM

(51) International classification :G09B0019000000, A61B0005110000, A63B0024000000, G06F0003048830, A61B0005220000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

A bionic arm mimics natural arm functions and movements using advanced technology like sensors, motors, and AI. Powered by batteries and controlled through muscle signals or electronic sensors, bionic arms enable users to perform tasks previously impossible with traditional prosthetics. Some of the common problems faced by people with hand disability include difficulties with fine motor skills, limited range of motion, decreased grip strength, and reduced dexterity. These limitations can make it challenging to perform basic tasks such as buttoning clothes, tying shoelaces, or even holding a pen. Bionic arms often have multiple joints which allows the arm to move in a wider range. Bionic arms have various applications, including prosthetic rehabilitation, sports, military, industrial, and personal use, enabling users to perform tasks previously difficult or impossible.

No. of Pages : 9 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000693 A

(19) INDIA

(22) Date of filing of Application :04/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A KIND OF HIGH BURNING EFFICIENCY BIOMASS COOKING STOVE WITH VENT HOLES AND CHIMNEY

(51) International classification	:F24B0001200000, F24B0013000000, F24B0001191000, F24B0001180000, F24B0009000000	(71)Name of Applicant : 1)VENKATESH VAVILADA Address of Applicant :D-NO: 1-31, VOOLAPALLI, BIKKAVOLU MANDAL, EAST GODAVARI DISTRICT, ANDHRA PRADESH-533343. ----- 2)R.NARASIMHA RAO 3)LAKSHMI TULASI DEVI SURAPANENI Name of Applicant : NA Address of Applicant : NA
(86) International Application No	:NA	(72)Name of Inventor :
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Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

This invention relates to a high efficient, low heat loss and minimal smoke discharge biomass cooking stove with air gaps and chimney which pertains to the field of cooking equipment, particularly used to reduce the smoke and to enhance the combustion of the fire wood. This invention mainly focused on reduce the eye cataract problems caused due to the smoke liberated from the traditional three brick stove used by the people living in the tribal areas of the Andhra Pradesh. The each side of the invented biomass cooking stove comprises of the two layers of the thin walls with vent holes on the upper side of the outer layer and at the bottom of the inner layer for the effective flow of the hot air to the combustion chamber for the efficient burning of the fire wood. The generated smoke is directed to the atmosphere through the chimney provided at the rare» end of the stove. Therefore, the highly efficient low-smoke discharge firewood stove provided by this invention contributes to environment protection and is of great significance for developing renewable clean energy and leading a low carbon economy

No. of Pages : 10 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000724 A

(19) INDIA

(22) Date of filing of Application :04/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : EARLY PROGNOSIS OF KIDNEY DISEASES ALONG WITH FEATURE EXTRACTION TECHNIQUE THROUGH CLASSIFICATION MODELS

(51) International classification :G06K0009620000, A61P0013120000, H04W0004029000, A61K0036076000, G01N0015140000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Early prognosis of kidney diseases along with feature extraction technique through classification models is the proposed invention. The proposed invention focuses on understanding the functions of early progress of kidney diseases. The invention focuses on analyzing the parameters of feature extraction technique using algorithms of classification models.

No. of Pages : 12 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000761 A

(19) INDIA

(22) Date of filing of Application :04/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN APPARATUS TO MEASURE FLOW RATE OF A FLUID PASSING THROUGH A PIPELINE

(51) International classification :G01F1/05,
G01F5/00
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application
Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

An apparatus (10) to measure flow rate of a fluid passing through a pipeline (20) is provided. The apparatus includes flow sensors to sense flow rate of the fluid through a pipeline segment. The flow sensors includes a first flow sensor (40) and a second flow sensor (50). The pipeline segment includes a first pipeline segment (60) and a second pipeline segment (70) including a tapping (80) between the first pipeline segment and the second pipeline segment. The apparatus includes a control and monitoring unit (90) to activate the second flow sensor to receive the flow rate of the fluid passing through the second pipeline segment upon receiving the flow rate of the fluid passing through the first pipeline segment from the first flow sensor. The control and monitoring unit is to estimate the flow rate of the fluid through the tapping, by subtracting the flow rate through the second pipeline segment from the flow rate through the first pipeline segment. FIG. 1

No. of Pages : 14 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000775 A

(19) INDIA

(22) Date of filing of Application :04/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD FOR PREDICTING AND CATEGORIZING MALICIOUS FILES USING MACHINE-LEARNING BASED CLASSIFIERS

(51) International classification :G06F0021560000, G06N0020000000, G06F0021550000, G06N0020100000, G06F0016245500

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

The present disclosure relates to a system for predicting and categorizing malicious files using machine-learning based classifiers. The system (102) includes processors (202); and memory coupled to processors (202), memory (204) stores instructions which when executed by processors (202) cause system (102) to monitor data packets received by monitoring module (212), monitoring module (212) inspects and analyzes data packets received over network modem. The system (102) extracts features from data packets by extraction module (214) using feature extraction techniques, features includes static features, and dynamic features stored in real-time dataset. The system (102) analyzes features by analyzing module (216) to identify executable files based on static features, and dynamic features. The system (102) predicts malicious files, and benign files from executable files by prediction module (218). The system (102) categorizes malicious files from benign files by categorizing module (220), categorizing module identifies malware type from malicious files.

No. of Pages : 25 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000777 A

(19) INDIA

(22) Date of filing of Application :04/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SYSTEM AND METHOD FOR DETECTING A GAS LEAKAGE

(51) International classification :G08B0021160000, G01N0021350400, G01N0021390000, G08B0021120000, G01M0003200000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)VIT-AP University Address of Applicant :Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)RAMKUMAR D Address of Applicant :Assistant Professor Sr. Grade-1, SCOPE, School of Computer Science & Engineering, VIT-AP University, Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati -- ----- 2)ANIL VITTHALARO TURUKMANE Address of Applicant :Professor Grade-1, SCOPE, School of Computer Science & Engineering, VIT-AP University, Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati ----- - -----

(57) Abstract :

A system (100) and method (200) for detecting a gas leakage is provided. The system (100) involves a gas detector (110) equipped with one of a semiconductor and one or more sensors to continuously monitor a gas concentration in a predefined area around the gas detector (110). The system (100) also includes an alarm unit (112) to alert users upon detection of the gas leakage. The system sends instant notifications to alert users or relevant personnel in real-time, ensuring prompt response and minimizing risks. The user-friendly design of the system (100) allows for easy installation and operation, providing peace of mind to users by offering comprehensive gas leak detection and safety features.

No. of Pages : 24 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :04/01/2024

(21) Application No.202441000808 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : THE IMPACT OF TRANSITIONING FROM MICRO TO NANO IN LOW-DIMENSIONAL SEMICONDUCTORS ON MOS LOGIC

(51) International classification :B82Y0030000000, H03K0019017000, G11C0016040000, G01K0017000000, H04W0084120000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Abstract The present research looks at how moving from tiny to even tinier, that is from micro to Nano. This affects logic circuits in semiconductors made of Metal Oxide. The study compares the performance characteristics of MOS logic devices at both scales, highlighting advancements facilitated by nanotechnology. The microscale studies showed electron mobility at 500 cm²/Vs, a threshold voltage of 1.5 V, and a leakage current of 10 nA. Power consumption averaged at 50 μW, generating 2 mW/cm² heat. Transitioning to the nano-scale, the research significantly improves key performance indicators. Electron mobility increased to 1200 cm²/Vs, threshold voltage and leakage current reduced to 0.7 V and 2 nA, respectively. Power consumption in nano-scale MOS logic circuits was significantly lower at 20 μW, and the switching speed of 5 ns was faster. Heat generation remained efficiently managed at approximately 1.5 mW/cm². Research points out that moving to semiconductors at the nano-scale markedly boosts the efficiency and workings of MOS logic circuits. It discusses how, nano scale materials can dramatically transform MOS logic machines. It will enhance their efficiency, speed, and lower their energy usage.

No. of Pages : 12 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :04/01/2024

(21) Application No.202441000842 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : DESIGN AND DEVELOPMENT OF LAB-SCALE INDUSTRIAL WASTE FRP SHREDDING MACHINE

(51) International classification :F24S0020300000, B29L0031000000, B29B0017020000, B29B0017040000, C08J0011040000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The main objective of this invention is to design a shredding machine for recycling FRP waste. The present invention relates to a mechanical method for recycling composites and emphasizes the significance of this approach over other alternative methods. Other recycling processes utilize thermal and chemical energies that exist, but they come with limitations in terms of safety, potential hazards, and cost implications. The mechanical method of recycling outlined in this innovation involves the utilization of a specialized FRP shredding mechanism, emphasizing its superiority in several key aspects. The invention focuses on enhancing the recycling process's efficiency, reducing operational costs, and mitigating potential hazards associated with other recycling methods. The mechanical approach contributes to the conservation of resources, aligning with global sustainability goals and reducing the environmental footprint of FRP waste. This shredded FRP waste, when combined with a suitable polyester polymer, will be employed in the creation of panels/laminates intended for suitable applications like solar cooker panels, road humps, partition panels, etc.

No. of Pages : 8 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000848 A

(19) INDIA

(22) Date of filing of Application :04/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : MIMO-OFDM RECEIVER FOR 5G REAL-TIME WIRELESS VIDEO TRANSMISSION

(51) International classification :H04L0001000000, H04L0065800000, H04L0027260000, H04N0019610000, H04L0065110100
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention provides a MIMO-OFDM system designed for real-time video transmission, featuring a transmitter with advanced signal processing blocks such as Progressive Encoder, Raptor Q Encoder, and a receiver with comprehensive decoding modules. The transmitter ensures efficient and reliable signal processing, utilizing various encoding and modulation techniques, including low-latency encoding and high-efficiency error correction. The receiver's sophisticated decoding processes facilitate accurate signal recovery, employing MIMO technology with low-complexity architecture and early video playback initiation. The method involves dividing video data into subcarriers, transmitting via MIMO-OFDM, and performing decoding steps, including Raptor Q error correction and progressive decoding. The system achieves remarkable throughput, low latency, and high-quality video streaming in the 5G frequency band, making it a significant advancement in real-time multimedia communication and streaming applications.

No. of Pages : 29 No. of Claims : 13

(54) Title of the invention : TO IDENTIFY THE ONLINE FAKE PRODUCT USING A QR CODE BY APPLYING DESIGN THINKING APPROACH

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(51) International classification	:G06Q0030020000, G06Q0030000000, G06Q0030060000, G06F0021570000, G06F0021440000	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
In the contemporary retail landscape, a growing concern is the prevalence of counterfeit products in online markets, posing a significant risk to customers. Approximately 20% of items offered on online platforms are reported to be fake, contributing to a notable downturn in market integrity. To address this challenge, the implementation of QR codes has emerged as a proactive solution to distinguish between genuine and counterfeit products. Through the utilization of QR codes, customers can verify the authenticity of a product. If the code does not match the expected result, an instant notification is triggered, alerting the customer to the potential counterfeit nature of the item. In an era where a substantial portion of the population relies on online platforms for their daily needs, consumer trust is paramount. Reviews play a pivotal role in establishing this trust, serving as a key reference point for prospective buyers. The detection and removal of counterfeit reviews from datasets using various Natural Language Processing techniques are crucial. These reviews may either be genuine expressions from loyal customers or manipulated for marketing purposes. Surprisingly, studies indicate that nearly sixty percent of reviews on Amazon are identified as fake, with approximately fifteen percent of companies incentivizing individuals to generate counterfeit reviews. To rectify this imbalance and combat forgery, a comprehensive study has been conducted to identify and filter out fake reviews. This ensures that users are presented with genuine feedback, free from manipulation, safeguarding both their decision-making process and the reputation of the respective companies. The system primarily operates by detecting fake reviews through the analysis of multiple reviews from a single user, thereby enhancing the authenticity of the information available to consumers.

No. of Pages : 6 No. of Claims : 2

(54) Title of the invention : ENHANCING INFORMATION MANAGEMENT WITH A COMPREHENSIVE MULTI-DOCUMENT SUMMARIZATION FRAMEWORK

(51) International classification :G06F0016340000, G06N0003040000, G06N0003080000, G06Q0030020000, G06T0007000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Sunilkumar Ketineni Address of Applicant :Research Scholar, SCOPE, VIT-AP University, G-30, Inavolu, Beside AP Secretariat, Amaravati, AP- 522237 ----- 2)Dr. Sheela Jayachandran Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Sunilkumar Ketineni Address of Applicant :Research Scholar, SCOPE, VIT-AP University, G-30, Inavolu, Beside AP Secretariat, Amaravati, AP- 522237 ----- 2)Dr. Sheela Jayachandran Address of Applicant :Assistant Professor Sr. Grade 1, SCOPE, VIT-AP University, G-30, Inavolu, Beside AP Secretariat, Amaravati, AP- 522237 -----

(57) Abstract :
The proposed invention introduces a comprehensive multi-document summarization system that revolutionizes automated text summarization. It encompasses BERT-based preprocessing for tokenization, feature extraction with various indicators, knowledge extraction to enhance a customized Convolutional Neural Network (CNN), and a summarization stage employing transfer learning (MCNN-TL). This system addresses critical challenges in text summarization, including subject delineation, clarity, and summary quality assessment. It enhances subject delineation accuracy, ensuring that summaries capture essential themes accurately. The inclusion of transfer learning and knowledge extraction results in clearer and more coherent summaries. Rigorous evaluations demonstrate its superiority over existing methods. The invention finds applications in information retrieval, academia, market research, and more, promising to streamline information consumption and decision-making in our data-driven world.

No. of Pages : 25 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :04/01/2024

(21) Application No.202441000854 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : INTERACTIVE AI TUTORING SYSTEM EMPLOYING CHATGPT FOR ENHANCED EDUCATIONAL ENGAGEMENT

(51) International classification :G06Q0050200000, G06N0003080000, G09B0019000000, G09B0007020000, G09B0005020000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
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(57) Abstract :

The Interactive AI Tutoring System Employing ChatGPT for Enhanced Educational Engagement is a groundbreaking innovation that integrates artificial intelligence (AI) and education. The system features a ChatGPT-based virtual tutor capable of engaging in real-time, human-like conversations with students, providing personalized explanations, answering queries, and delivering timely feedback. Its dynamic adaptation mechanism tailors the tutoring experience to individual learning styles and preferences. This invention finds applications across diverse educational contexts, including K-12 education, higher education, professional development, and lifelong learning. It enhances educational engagement by offering interactive, personalized learning experiences and uses data-driven insights to monitor and analyze student progress. Addressing challenges related to teacher-to-student ratios, it provides 24/7 access to tailored educational support. Privacy protection, data security, and transparency are embedded in the system's algorithms. This scalable, adaptable, and ethical AI tutoring system contributes to inclusive education, supporting diverse needs and abilities.

No. of Pages : 24 No. of Claims : 10

(54) Title of the invention : OPTIMIZED ALGEBRAIC PROTOCOLS FOR ENHANCED ENCRYPTION AND DECRYPTION PROCESSES

(51) International classification :G06F0021620000, G06F0021600000, H04L0009060000, H04L0009080000, H04L0009320000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Dr. K. Jayalakshmi Address of Applicant :Professor of Mathematics, Department of Mathematics, JNTUA CEA, Anantapur, Andhra Pradesh, India, Pincode: 515002 ----- ----- 2)Dr. Y. Swapna 3)Mr. A.M. Mohan Kumara Velu 4)Dr. Kuparala Venkata Vidyasagar 5)Dr. C. Indirani 6)Dr. S. Selvi 7)Ms. D. Saranya Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. K. Jayalakshmi Address of Applicant :Professor of Mathematics, Department of Mathematics, JNTUA CEA, Anantapur, Andhra Pradesh, India, Pincode: 515002 ----- ----- 2)Dr. Y. Swapna Address of Applicant :Academic Consultant, Department of Mathematics, Sri Venkateswara University, Tirupati, Andhra Pradesh, India, Pincode: 517502 ----- ----- 3)Mr. A.M. Mohan Kumara Velu Address of Applicant :Assistant Professor in Mathematics, Department of Science and Humanities, Nandha College of Technology, Erode, Tamilnadu, India, Pincode: 600052 ----- ----- 4)Dr. Kuparala Venkata Vidyasagar Address of Applicant :Lecturer in Mathematics, Department of Mathematics, SVLNS Government Degree College, Bheemunipatnam, Visakhapatnam, Andhra Pradesh, India, Pincode: 531163 ----- ----- 5)Dr. C. Indirani Address of Applicant :Assistant Professor-Level III, Department of Mathematics, Bannari Amman Institute of Technology, Sathyamangalam, Erode, Tamilnadu, India, Pincode: 638401 ----- ----- 6)Dr. S. Selvi Address of Applicant :Assistant Professor, Department of Mathematics, Bannari Amman Institute of Technology, Sathyamangalam, Erode, Tamilnadu, India, Pincode: 638401 ----- ----- 7)Ms. D. Saranya Address of Applicant :Assistant Professor, Department of Mathematics, Bannari Amman Institute of Technology, Sathyamangalam, Erode, Tamilnadu, India, Pincode: 638401 ----- -----

(57) Abstract :
The invention pertains to the field of cryptography and information security, presenting a novel approach to optimize algebraic protocols for enhanced data encryption and decryption. This method addresses the growing need for improved security, efficiency, and speed in cryptographic operations. By reducing computational overhead, the invention streamlines resource-intensive processes, making data protection more efficient. Furthermore, it accelerates encryption and decryption, meeting the demands of real-time data access. Security is paramount, with the invention developing robust encryption algorithms that withstand various cyber threats. The invention encompasses computer programs, systems, and tangible computer-readable media, catering to diverse applications in government, finance, healthcare, and other industries. This innovation represents a significant leap forward in securing digital information in our interconnected world, where data privacy and security are of utmost importance.

No. of Pages : 19 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000859 A

(19) INDIA

(22) Date of filing of Application :04/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AUTOMATED PLANT DISEASE DETECTION AND CLASSIFICATION SYSTEM USING OPTIMIZED DEEP LEARNING TECHNIQUES

(51) International classification :G06N0003040000, G06N0003080000, G06K0009620000, G06N0020000000, G06T0007000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The disclosed invention pertains to a novel system for automated plant disease detection and classification, leveraging advanced deep learning techniques. It includes an image acquisition module to capture high-resolution plant leaf images, a deep learning model employing convolutional neural networks (CNNs) for accurate disease identification and segmentation, and a disease classification module. The system offers a maximum testing accuracy of 94.69%, sensitivity of 95.58%, and specificity of 92.90%, ensuring reliable and timely disease detection. Accessible via smartphones and digital cameras, it caters to a wide range of users, from individual farmers to large agricultural enterprises. The invention promotes precision agriculture, enabling data-driven decisions and resource optimization, ultimately contributing to sustainable farming practices and reduced environmental impacts. Furthermore, it supports cloud-based data processing for scalable disease monitoring, making it a valuable tool for enhancing food security and agricultural sustainability.

No. of Pages : 22 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000861 A

(19) INDIA

(22) Date of filing of Application :04/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : DESIGN AND DEVELOPMENT OF MULTIMODAL CRYPTOSYSTEM FOR BLOCK CHAIN TECHNOLOGY

(51) International classification	:H04L0009080000, H04L0009320000, H04L0009060000, G06F0021620000, H04L0009000000	(71)Name of Applicant : 1)Satish S Bhairannawar Address of Applicant :Professor & Dean III – Industry Institute Interface Dept. of ECE SDM College of Engineering & Technology, Kalaghatagi Road -----
(86) International Application No	:NA	2)PRINCIPAL
Filing Date	:NA	Name of Applicant : NA
(87) International Publication No	: NA	Address of Applicant : NA
(61) Patent of Addition to Application Number	:NA	(72)Name of Inventor :
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		- -----

(57) Abstract :

ABSTRACT Cryptography is a key element to block chain technology that provides secure communication. Cryptography is the best method of securing data from any unauthorized access. Block chain technology is an advanced database mechanism that allows transparent information sharing within a business network. A block chain database stores data in blocks that are linked together in a chain. It refers to a tamper-resistant database distributed on a network that operates without a central authority. It relies on a peer-to-peer network, instead of a central authority for the decision-making process. A block is a collection of data records, and the chain refers to a public database of these blocks, stored as a list. These lists are linked together using cryptography, which makes them highly secure and tamper-resistant. Block chain technology employs both hash function and asymmetric key cryptography. Here, the private key is produced by a random number and the public key is calculated by an irreversible algorithm. But in the proposed project, keys are derived from biometrics of a user so as to confirm authenticity of a user who is doing transactions. Hash functions and asymmetric keys allow secure data transfer and storage in a block chain.

No. of Pages : 6 No. of Claims : 2

(54) Title of the invention : TOOL FOR INTEGRATED TEACHING AND RETRIEVAL SYSTEM FOR LITERATURE EDUCATION: LITBORG

(51) International classification	:G09B0019000000, G09B0007000000, G09B0005020000, G09B0005060000, G06Q0050200000	(71)Name of Applicant : 1)Sanagavarapu Sri Sakuntala Address of Applicant :Department of English, Koneru Lakshmaiah Education Foundation (deemed to be University), Green fields, Vaddeswaram, Guntur, Andhra Pradesh. ----- -- ----- 2)Koneru Lakshmaiah Education Foundation Name of Applicant : NA Address of Applicant : NA
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Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The Tool for Integrated Teaching and Retrieval System for Literature Education: LITBORG, represents a revolutionary advancement in literature education. LITBORG is a multifaceted patent-pending framework that amalgamates cutting-edge technology, artificial intelligence, and interactive learning methodologies to redefine the teaching, comprehension, and information retrieval processes within the realm of literature. At its core, LITBORG leverages advanced technology to create an immersive educational environment. Virtual Reality (VR) and Augmented Reality (AR) components are seamlessly integrated, offering students and educators a transformative, sensory-rich experience. This immersive approach transcends conventional teaching methods, fostering dynamic engagement with literary concepts. Artificial intelligence is a cornerstone of LITBORG, facilitating personalized learning experiences. Machine learning algorithms adapt content delivery, assessments, and feedback to cater to individual student needs. This adaptive learning feature ensures each student receives a bespoke educational journey, promoting a deeper understanding and connection to literary content. LITBORG's interactive learning methods enhance student participation and collaboration. Real-time feedback mechanisms and collaborative tools empower students to engage in discussions, group projects, and interactive activities. This fosters critical thinking skills, a sense of community, and an enriched educational experience. A defining feature of LITBORG is its comprehensive retrieval system. The tool provides a user-friendly interface to efficiently access a vast repository of literary resources, analyses, and contextual information. This facilitates streamlined research processes, enabling students and educators to easily delve into literary exploration. In essence, LITBORG's patent signifies a paradigm shift in literature education. By seamlessly integrating advanced technology, artificial intelligence, and interactive learning methodologies, LITBORG paves the way for a more immersive, personalized, and comprehensive approach to teaching and understanding literature. This innovative tool stands as a testament to the transformative power of technology in shaping the future of education.

No. of Pages : 4 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000909 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SIGNIFICANCE OF ENGLISH LANGUAGE FOR BUSINESS GROWTH AND DEVELOPMENT IN INDIA

(51) International classification :G06Q 10/00, G06Q 10/06, G06Q 30/02, G06Q 50/00, G09B 19/06
(86) International Application No :NA
Filing Date :NA
(87) International Publication No :NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
ABSTRACT Significance of English Language for business growth and development in India The English language has played a significant role in the growth and development of businesses in India. As India is becoming a global hub for outsourcing and is attracting foreign investments, English proficiency has become crucial for business success. Firstly, English facilitates effective communication both within and outside the organization. It is the language commonly used for business correspondence, meetings, and negotiations. By being proficient in English, companies can better collaborate with international partners, attract foreign customers, and expand their market reach. Secondly, English proficiency ensures access to a vast pool of international talent. Many multinational companies prefer to establish operations in India due to its large English-speaking workforce. Companies hiring employees with good English skills can tap into a wider talent pool and benefit from the diverse perspectives and skills of global professionals. Thirdly, English proficiency enhances India's competitiveness in the global market. Businesses with employees fluent in English can easily adapt to global business practices and align their strategies with international standards. This advantage allows Indian companies to compete on equal footing with companies from English-speaking countries, thereby increasing their chances of success in the global marketplace. Furthermore, English proficiency aids in the adoption of technological advancements and innovations. English is the primary language used in technical documentation, research papers, and online resources. By having access to and understanding these resources, Indian businesses can stay updated with the latest trends, technologies, and best practices across various industries. Lastly, English proficiency plays a crucial role in attracting foreign direct investments (FDIs). Investors often choose countries with a strong English-speaking base as it provides a level of comfort and ease in conducting business. By having English-speaking professionals, India can attract more FDIs and boost its economy. In conclusion, the significance of the English language for business growth and development in India cannot be understated. It enables effective communication, access to a global talent pool, enhances competitiveness, fosters technological advancements, and attracts foreign investments. Therefore, businesses that prioritize English proficiency can position themselves for success in the global business landscape.

No. of Pages : 12 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000916 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : ADVANCED DEEP ENSEMBLE MODEL FOR PRECISION CROP YIELD PREDICTION IN AGRICULTURE USING MACHINE LEARNING AND IBS-BOA ALGORITHM

(51) International classification :G06Q0050020000, G06Q0010040000, G06Q0010060000, G06N0003080000, G06N0003040000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The proposed system falls within the field of agricultural technology and precision farming. It specifically pertains to the development of advanced computational methods and machine learning techniques for precision crop yield prediction in the context of Indian agriculture. This field encompasses data science, deep learning, and algorithm development, all tailored to address the unique challenges faced by farmers and stakeholders in India. The system's primary focus is on enhancing the accuracy and reliability of crop yield forecasts, thereby enabling more informed decision-making by farmers, policymakers, and agricultural organizations. Furthermore, it contributes to the broader domain of sustainable agriculture by promoting resource-efficient practices and risk mitigation in the face of unpredictable environmental factors. The system's potential impact extends to improving food security, optimizing resource allocation, attracting investment, and positioning India as a leader in agricultural innovation and technology.

No. of Pages : 24 No. of Claims : 8

(54) Title of the invention : PEDAGOGICAL LEARNING SYSTEM FOR STEM EDUCATION WITH EMPHASIS ON MATHEMATICS

(51) International classification :G06Q0050200000, G09B0007000000, G09B0005060000, G09B0005020000, G09B0019000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)R V University Address of Applicant :RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)S Shreyas Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 2)Uzair Sunkad Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 3)Aneesh Kulkarni Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 4)Surkesula Himaja Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 5)Pratham K Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 6)Adoksh M Bharadwaj Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 7)Phani Kumar Pullela Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 8)Ramesha G N Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore -----

(57) Abstract :
PEDAGOGICAL LEARNING SYSTEM FOR STEM EDUCATION WITH EMPHASIS ON MATHEMATICS The invention presents Matrix, a pedagogical learning system designed to enhance STEM education with a specific focus on mathematics. Matrix employs interactive elements to engage learners, offering a customizable and adaptive learning experience. The system incorporates thought-provoking challenges and technically advanced features for personalized learning, promoting curiosity and skill development. With the inclusion of emerging technologies, such as artificial intelligence, virtual reality, and mobile applications, Matrix caters to diverse learning styles and adapts to individual proficiency levels. It finds application in various scenarios, including office training, home education, schools, kindergarten, employee onboarding, and healthcare facilities. Matrix revolutionizes STEM education by combining interactivity with educational objectives, fostering engagement, and driving improved learning outcomes.

No. of Pages : 24 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000924 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : BACKPACK SPINAL STRESS MONITOR AND NOTIFIER

(51) International classification :A45F3/04, A61B5/107, A61B5/11, G01G19/40, G01G19/414, G01G19/52, G01G19/58
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(72)Name of Inventor :
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(57) Abstract :

Backpack Spinal Stress Monitor and Notifier The current innovation pertains to an original approach and system involving a modular unit designed to assess and alert about spinal stress levels by utilizing weight and an accelerometer housed within a backpack. This invention targets the evaluation of how carrying a backpack affects the spinal health of both children and adults, aiming to deliver immediate alerts to users based on the weight of the backpack and the duration of its usage. The primary goal is to advocate for safe practices when using backpacks, ultimately reducing the likelihood of encountering musculoskeletal problems. This novel invention introduces a methodological system embedded within a modular component within the confines of a backpack. It is specifically engineered to gauge the impact of the backpack's weight on the spinal health of individuals, be they children or adults, by incorporating real-time notifications based on weight and duration of use. The overarching objective is to instill safe habits of utilizing backpacks, thereby mitigating potential musculoskeletal issues that may arise. The invention's core intent is to provide an innovative technique housed in a backpack's modular component, utilizing weight and accelerometer data to evaluate spinal stress on users, especially children and adults, delivering immediate notifications based on usage duration and weight to foster safer backpack usage and reduce the risk of musculoskeletal complications.

No. of Pages : 20 No. of Claims : 7

(54) Title of the invention : AN IMMERSIVE SYSTEM FOR ENHANCING PHYSICAL SKILL DEVELOPMENT AND PERSONAL GROWTH

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	(71)Name of Applicant : 1)R V University Address of Applicant :RV Vidyanikethan Post 8th Mile, Mysore Road, Bengaluru, Karnataka 560059 Banglore ----- -- ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Advik Rajesh Holalu Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Banglore ----- 2)Akshath S Bhandiwad Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Banglore ----- 3)Nivedan B R Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Banglore ----- 4)Kommuri Jaidev Shankar Reddy Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Banglore ----- 5)Bindu T D Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Banglore ----- 6)Kasish Verma Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Banglore ----- 7)Phani Kumar Pullela Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Banglore ----- 8)Ramesha G N Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Banglore -----

(57) Abstract :
AN IMMERSIVE SYSTEM FOR ENHANCING PHYSICAL SKILL DEVELOPMENT AND PERSONAL GROWTH The present invention introduces a system that revolutionizes physical skill development experiences by incorporating skill-specific characters and three-dimensional objects to enhance immersion, interactivity, and engagement. By combining technical, electronic, and mechanical tools, the invention creates a bridge between physical activities and digital realms, offering novel skill development possibilities. The system finds applications in diverse settings, including workplaces, homes, educational institutions, and therapeutic centres. It enables participants to engage in immersive activities, acquire new skills, foster personal growth, and learn in an indulgent manner. With its ability to facilitate skill development, character enhancement, and social interaction, the invention provides an innovative and captivating platform that redefines physical skill development experiences.

No. of Pages : 23 No. of Claims : 10

(54) Title of the invention : UNIVERSAL THREE-DIMENSIONAL PROJECT VISUALIZATION PLATFORM

(51) International classification (86) International Application No (87) International Publication No (61) Patent of Addition to Application Number (62) Divisional to Application Number :G06Q0010060000, G06Q0050260000, G06Q0010100000, G06Q0010000000, G06T0017050000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)R V University Address of Applicant :RV Vidyanikethan Post 8th Mile, Mysore Road, Bengaluru, Karnataka 560059 bangalore ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Ananya S Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 2)Chandana B Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 3)Dhanya Nagaraj Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 4)Ishita D S Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 5)Nagaraj K Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 6)Nithin N Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 7)Phani Kumar Pallela Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 8)Ramesha G N Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore -----

(57) Abstract :
UNIVERSAL THREE-DIMENSIONAL PROJECT VISUALIZATION PLATFORM The Universal Three-Dimensional Project Visualization Platform is a groundbreaking invention revolutionizing project management and comprehension. It offers a tangible and interactive means of presenting complex projects to diverse stakeholders without invoking gaming methodologies. Through a three-dimensional representation system, project details are converted into physical objects, enabling intellectual visualization and hands-on interaction. The platform facilitates effective communication, problem-solving, and decision-making in various industries such as archaeology, urban planning, aerospace, and emergency response. With the integration of augmented reality and IoT sensors, it ensures an immersive user experience and real-time data collection. This innovative platform empowers stakeholders to collaborate efficiently, optimize projects, and achieve successful outcomes in a rapidly evolving world.

No. of Pages : 20 No. of Claims : 10

(54) Title of the invention : HEAT-ACTIVATED ADHESIVE POLYMERIC MATERIAL FOR TACTILE BRAILLE SCRIPT GENERATION ON VARIOUS SURFACES

(51) International classification :C08F220/18, C09J133/00, C09J133/08, C09J133/10 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)R V University Address of Applicant :RV Vidyaniketan Post 8th Mile, Mysore Rd, RV Vidyaniketan, Mailasandra, Bengaluru, Karnataka 560059 Bangalore ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Sruthika Sivakumar Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 2)Shreyas R Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 3)Reethu Rajesh Gayathri Thota Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 4)Avanthi Narasingu Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 5)Siddhartha A K Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 6)Dhyan M S Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 7)Phani Kumar Pulela Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 8)Ramesha G N Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore -----

(57) Abstract :
This invention relates to an adhesive polymeric material capable of forming Braille scripts on various surfaces to aid visually impaired individuals. Upon heating within a specified range (50°C to 90°C), the material becomes flexible and moldable, facilitating the creation of tactile Braille scripts. The adhesive effect fades within one to ten minutes, rendering the formed protrusions permanent. This invention is versatile and applicable to a wide range of surfaces, from objects to signage, and offers significant potential to enhance accessibility and usability for visually impaired individuals.

No. of Pages : 22 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000928 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AI AND MACHINE LEARNING-ENABLED ENVIRONMENTAL NOISE CANCELLATION SYSTEM FOR COLLECTIVE BENEFIT

(51) International classification :G10K0011178000, H04W0004330000, G08B0021020000, A23L0033185000, H05B0047175000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

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(57) Abstract :

AI AND MACHINE LEARNING-ENABLED ENVIRONMENTAL NOISE CANCELLATION SYSTEM FOR COLLECTIVE BENEFIT This invention introduces an AI and ML-enabled noise cancellation system designed for public and institutional use. The system intelligently identifies, characterizes, and mitigates environmental noise in a specified area. Unlike traditional noise cancellation devices, this system benefits multiple individuals in a given environment simultaneously, distinguishing and eliminating disruptive noise without affecting necessary sound signals. Application ranges from classrooms, workplaces, and factories to unique environments like space stations or underwater habitats. By creating a more comfortable and focused auditory environment, the system enhances productivity, learning, safety, and overall experiences in diverse settings.

No. of Pages : 30 No. of Claims : 10

(54) Title of the invention : INTERACTIVE EMOTIONAL SUPPORT SYSTEM FOR ALLEVIATING LONELINESS IN PREGNANT WOMEN AND NEW MOTHERS

(51) International classification :A61B0005000000, G16H0020700000, G10L0025630000, G10L0017260000, G06Q0050180000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)R V University Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- - ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Mokshith P Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 bangalore ----- 2)Saativik B Hampiholi Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 bangalore ----- 3)Manvitha R Kabbathi Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 bangalore ----- 4)Chinthala Upagna Reddy Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 bangalore ----- 5)Chandan Gowda G Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 bangalore ----- 6)Phani Kumar Pullela Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 7)Ramesha G N Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore -----

(57) Abstract :
ABSTRACT INTERACTIVE EMOTIONAL SUPPORT SYSTEM FOR ALLEVIATING LONELINESS IN PREGNANT WOMEN AND NEW MOTHERS The interactive emotional support system is a non-gaming solution designed to address the issue of loneliness in pregnant women and new mothers while complying with patentability provisions. It incorporates physical memory-hosting components, customizable triggers, and therapy modules to evoke positive memories, minimize negative emotions, and foster emotional well-being. The system integrates augmented reality, artificial intelligence, and biometric sensors to personalize the user experience and provide tailored support. With applications in office, home, school, and healthcare settings, it promotes emotional connection, reduces isolation, and enhances overall well-being. The invention empowers users to cope with the challenges of pregnancy and new motherhood, creating a supportive and compassionate environment that positively impacts their mental health.

No. of Pages : 22 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000930 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : INTERACTIVE THERAPEUTIC PLATFORM FOR HABIT AND ADDICTION MANAGEMENT

(51) International classification :G06F0003010000, A61P0025320000, A61P0025300000, A61P0025340000, A61P0025360000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)R V University Address of Applicant :RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Shreya Sinha Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 2)Saniya Khannum Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 3)Musharrat Perveen Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 4)Prince Ranjan Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 5)Phani Kumar Pullela Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore ----- 6)Ramesha G N Address of Applicant :RV University RV Vidyaniketan, Mysore road, Bengaluru, Karnataka 560059 Bangalore -----

(57) Abstract :

This invention is a therapeutic interactive platform designed to assist individuals in managing and overcoming harmful habits or addictions. The platform utilizes the concept of interactive elements symbolizing specific habits or addictions that users seek to eliminate from their life. Through repeated interactions, users are subtly influenced to recognize the need to rid themselves of these behaviours, fostering self-realization and self-control. The platform is customizable, accommodating various types of habits or addictions, and may integrate advanced technologies such as biometric sensors, VR/AR, machine learning, and haptic feedback devices for an immersive and personalized experience.

No. of Pages : 24 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :05/01/2024

(21) Application No.202441000939 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : IOT BASED ROBOT USED FOR HEALTH MONITORING

(51) International classification :H04N0007140000, A61B0005000000, G16H0040670000, A61B0005020500, A61B0005010000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
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(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Doctors are usually needed to work at every hospital and emergency center every now and then. But it is not feasible for every doctor to be available at every place at desired time. The problem with video calling is that video calls need to be done from a PC or laptop on a desk. This limits the doctor's capacity to view patient or around operation theatre at will or even move through hospital rooms as needed. To help solve this issue we here develop a virtual doctor robot that allows a doctor to virtually move around at a remote location at will and even talk to people at remote location as desired. There is more demanding for smart system like health monitoring emergency system. An intelligent smart real-time connected video communication between patient and doctor and there is a wireless Bluetooth connectivity or Wi-Fi connected robot system which can be controlled by the remote. The smart robot system will detect the health conditions by reading body temperature or pulse rate of patient and send actual values to doctor to remote places

No. of Pages : 10 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000940 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : REBO – HUMANOID ROBOT FOR MEDICAL APPLICATIONS

(51) International classification :G10L0015220000, B25J0009160000, B25J0013080000, G06Q0050200000, G01C0021200000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

This project focuses on the design and implementation of a versatile humanoid robot featuring a combination of advanced technologies. The robot's autonomous navigation is enabled by Lidar, ensuring it can accurately detect and navigate around obstacles while generating detailed 3D maps of its environment. Voice assistance and voice control systems are integrated, allowing for natural human-robot interaction. Users can issue vocal commands, making the robot an intuitive and user-friendly assistant. The incorporation of an RFID scanner and reader further enhances the robot's capabilities, enabling it to identify and interact with RFID-tagged objects. This feature is particularly useful in applications ranging from Schools, Colleges and medical to interactive experiences

No. of Pages : 11 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :05/01/2024

(21) Application No.202441000941 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : DESIGN AND DEVELOPMENT PORTABLE COFFEE SEED DRYING MACHINE

(51) International classification :A23N12/08,
A23N5/00
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application
Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

One of the most consumed beverages worldwide is coffee. Drying is one of the key technical post-harvest procedures that results in the production of the distinctive flavour, flavour, and taste of coffee brew. Sun drying and mechanical drying are the two types of drying methods traditionally employed in the production of coffee. After drying, the moisture content of the harvested coffee drops to around 12% (wb), from an initial moisture level of about 55–60%. To achieve appropriate colour, size, and pest eradication for a longer period of safe storage, drying should be consistent. Due to the cyclical nature of coffee production, traditional sun drying is difficult. Unexpected weather conditions might increase the moisture content, which extends the drying process by 7 to 21 days. There In our project, the battery, heating element, blower, and coffee seed drier are the four key components. The blower is utilised to provide hot air where it is needed, removing any moisture that may be present. Our project's size is also transportable. Therefore, moving the coffee drier to any location is quite simple. Drying is one of the most crucial processes in the preparation of coffee. Despite the fact that it involves a lot of effort, takes a long time, and depends on the weather, the natural sun drying of coffee in terraces is still quite popular among coffee farmers. As coffee output rises, sun drying operations take place on terraces.

No. of Pages : 12 No. of Claims : 5

(54) Title of the invention : A ROBUST PRINTED TEXT-BASED CRYPTOGRAPHY: THE SYNERGY OF CS - AG IN NEURAL NETWORKS

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	(71)Name of Applicant : 1)Gahan A V Address of Applicant :No.30, D Cross, 3rd Block, 2nd Stage, Nagarbhavi, Bengaluru – 560072, Karnataka Bangalore ----- 2)Dr.Geetha D. Devanagavi 3)Dr. Nikhath Tabassum 4)REVA University Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Gahan A V Address of Applicant :No.30, D Cross, 3rd Block, 2nd Stage, Nagarbhavi, Bengaluru – 560072, Karnataka Bangalore ----- 2)Dr.Geetha D. Devanagavi Address of Applicant :REVA University, School of C&IT, Rukmini Knowledge Park, Kattigenahalli, Yelahanka, Bengaluru - 560064, Karnataka Bangalore ----- 3)Dr. Nikhath Tabassum Address of Applicant :REVA University, School of ECE, Rukmini Knowledge Park Kattigenahalli, Yelahanka, Bangalore- 560064, Karnataka Bangalore -----

(57) Abstract :

Printed Text-based secure cryptography plays a crucial role in ensuring the security of web applications, online transactions, and financial operations. Web applications, designed for remote and efficient processes over the Internet, have seen significant advancements. In our present work, we introduce an innovative text-based secure cryptography technique known as the CS - AG in Glorot Neural Networks. The primary objective of the CS-AGNN approach is to enhance information extraction while minimizing execution time and computational complexity. This method can be broken down into two distinct phases. First, we apply a Coordinate Statistics Filter to the original secret text or printed material to eliminate any unwanted noise. In the subsequent step, we develop an autoencoder, which includes both an encoder and decoder, by leveraging the principles of the Adam Gradient Autoencoder Glorot Neural Network for text-based cryptography. This cryptographic system is rooted in an autoencoder-based deep learning model. Notably, it eliminates the need for extensive prime number requirements by employing synaptic weights initialized with the Glorot method as the basis for encryption and decryption keys. By optimizing XOR results for each round using the Adam Gradient function, our work achieves a high level of unpredictability without compromising the network's overall performance. This superiority is most evident in terms of execution time (encompassing both encryption and decryption), key storage efficiency, throughput, and computational complexity.

No. of Pages : 12 No. of Claims : 5

(54) Title of the invention : A SMART ROBOT FOR COLLECTING WATER SURFACE WASTE

(51) International classification :A47L0011400000, B63B0001040000, B32B0027120000, B65F0001140000, E01H0001120000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)REVA University Address of Applicant :Rukmini Knowledge Park, Kattigenahalli, Yelahanka, Bangalore, Karnataka, India, 560064 Bangalore ----- 2)Praveen Math 3)Dr B S Praveen kumar 4)Dr C D Hampali Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Praveen Math Address of Applicant :School of Mechanical Engineering, REVA University, Rukmini Knowledge Park, Kattigenahalli, Yelahanka Bangalore, Karnataka, India, 560064 Bangalore ----- - 2)Dr B S Praveen kumar Address of Applicant :Department of Mechanical Engineering, Government Engineering college, K R Pete- 571426 Bangalore --- ----- 3)Dr C D Hampali Address of Applicant :School of Mechanical Engineering, REVA University, Rukmini Knowledge Park, Kattigenahalli, Yelahanka Bangalore, Karnataka, India, 560064 Bangalore ----- -

(57) Abstract :

This work outlines the development of a water surface-cleaning robot tailored for the removal of floating debris. Key considerations in designing aquatic robots include cost-effectiveness, as well as ensuring robustness and durability. Given the cleaning task's unique demands, we devised a vehicle structure emphasizing high stability, excellent maneuverability, and efficient waste collection capabilities. Optimal for these requirements, a pontoon-shaped hull was selected, meeting hydrostatic and structural stability criteria. To facilitate waste removal, a motor-driven collecting-arm system was engineered, depositing debris into a rectangular basket on the hull. This design simplifies and enhances waste removal, effectively accommodating substantial amounts of waste in a compact space. Prototypically, hulls were constructed from styrofoam, enveloped in fiber, and coated with waterproof resin, reinforced with aluminum for a lightweight yet sturdy framework supporting the system's overall weight. The propulsion system, employing a differential drive mechanism, enables the robot to execute a 360-degree turn in place, delivering robust thrust. To safeguard electronic circuitry and motors from water, they are housed within the hull. The robot is manually operated using a remote control system based on Xbee Pro wireless modules. Testing of the prototype confirmed its efficacy in collecting and removing waste, with a maximum load capacity of up to 16 kg

No. of Pages : 11 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000944 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A HYDROPHONIC AGRICULTURE SYSTEM

(51) International classification :A01G0031020000, A01G0031000000, A01G0031060000, G06Q0030020000, G06F0003048830 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)REVA University Address of Applicant :Rukmini Knowledge Park, Kattigenahalli, Yelahanka, Bangalore, Karnataka, India, 560064 Bangalore ----- 2)Dr C D Hampali 3)Praveen Math Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr C D Hampali Address of Applicant :School of Mechanical Engineering, REVA University, Rukmini Knowledge Park, Kattigenahalli, Yelahanka Bangalore, Karnataka, India, 560064 Bangalore ----- - 2)Praveen Math Address of Applicant :School of Mechanical Engineering, REVA University, Rukmini Knowledge Park, Kattigenahalli, Yelahanka Bangalore, Karnataka, India, 560064 Bangalore ----- -

(57) Abstract :

Hydroponics is a modern farming technique that is gaining popularity due to its ability to produce high yields of crops in a limited space and with minimal resources. This research paper provides a comprehensive review of the advantages and limitations of hydroponics farming. The paper begins with an overview of hydroponics farming, including its history, types, and basic principles. It then examines the advantages of hydroponics, such as its potential to produce higher yields than traditional farming methods, the ability to grow crops in areas with poor soil quality, and the reduced use of water and pesticides. The paper also discusses the limitations of hydroponics farming, including the initial investment cost, the need for technical knowledge and experience, and the reliance on a consistent supply of electricity and water. The research paper concludes by emphasizing the importance of carefully evaluating the advantages and limitations of hydroponics farming before implementing it on a large scale. It also highlights the need for further research to optimize the system and address the challenges faced by hydroponic farmers.

No. of Pages : 11 No. of Claims : 2

(54) Title of the invention : VEHICULAR OVERWEIGHT CONTROLLER USING LOAD CELLS

(51) International classification :G01G0019080000, F02N0011080000, B60W0010060000, G01G0023010000, B60K0006480000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The goal is to stop accidents caused by an overloaded auto-rickshaw. In some cases, accidents are caused on highways and ghats due to overweighing of vehicles. In these situations, this project provides a solution by using GVW (Gross Vehicle Weight) to determine the overall maximum load that it is intended to bear. A gadget is fabricated that measures the combined weight of the driver and passengers and turns off the ignition of the vehicle when the maximum load is reached. The apparatus consists of an Arduino board, load cells, relay, bulb and buzzer that are connected. The load cell gives the value of the load that is carried and transmits the information to the Arduino board, which processes the data, displayed through an LED display to the driver and turns off the ignition of the engine by leaving the relay circuit open if the weight value exceeds the maximum load capacity of the vehicle. There are different load cells available for weighing different weights. So based on how much weight is to be measured the load cells are selected to use. The part of start /stop of the engine is taken care by the relay. Relay receives an input from arduino on whether to open the circuit or to close. When the threshold is crossed arduino sends a signal to open the circuit such that engine is shut off. If the load is within the threshold arduino does not change the default value of relay set as closed-circuit allowing engine to turn on. If not, it closes the relay circuit to allow the ignition to start. This project is helpful in avoiding accidents, maintaining road infrastructure and increase vehicle life-span along with its fuel efficiency

No. of Pages : 8 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000958 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : DEVELOPMENT AND CONSTRUCTION OF A SEMI-AUTOMATIC WATER TANK CLEANING DEVICE

(51) International classification :B08B0009093000, C02F0001300000, A47L0011400000, C02F0001780000, A47L0015000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Mr.P.Umar Ahamed Address of Applicant :Mohamed Sathak Engineering College,Kilakarai, Ramanathapuram Tamilnadu India Ramanathapuram ----- 2)Mr.V. Aswin 3)Dr.M.Makeshkumar 4)Mr.J.Mohammed Azharudeen 5)Mr.N.Rajiv Kumar 6)Dr.G.Veerappan Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Mr.P.Umar Ahamed Address of Applicant :Mohamed Sathak Engineering College,Kilakarai, Ramanathapuram Tamilnadu India Ramanathapuram ----- 2)Mr.V. Aswin Address of Applicant :Mohamed Sathak Engineering College,Kilakarai, Ramanathapuram Tamilnadu India Ramanathapuram ----- 3)Dr.M.Makeshkumar Address of Applicant :Department of mechanical engineering, KPR Institute of Engineering and Technology, Coimbatore Tamilnadu India Coimbatore ----- 4)Mr.J.Mohammed Azharudeen Address of Applicant :Mohamed Sathak Engineering College,Kilakarai, Ramanathapuram Tamilnadu India Ramanathapuram ----- 5)Mr.N.Rajiv Kumar Address of Applicant :KGISL Institute of Technology, Coimbatore Tamilnadu India Coimbatore ----- 6)Dr.G.Veerappan Address of Applicant :Sri Krishna college of Engineering and Technology, Coimbatore Tamilnadu India Coimbatore ----- -- -----

(57) Abstract :

The present invention is a development and construction of a semi-automatic water tank cleaning device, wherein, achieved by implementing a mechanical system consisting of two distinct mechanisms: a reciprocating four-bar mechanism and a governor mechanism and thereby, to minimize human effort while increasing cleaning efficiency, bringing water tank cleaning into the modern era.

No. of Pages : 6 No. of Claims : 1

(54) Title of the invention : NANO GUARDIANS: TRANSFORMATIVE MICROBOTS FOR AQUATIC ECOSYSTEM RESTORATION

(51) International classification :C02F0001000000, C02F0103000000, C02F0101320000, C02F0001280000, E02B0015040000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Dayananda Sagar College of Engineering Address of Applicant :Shavige Malleswara Hills, Kumaraswamy Layout, Bangalore Bangalore ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Archudha A Address of Applicant :Department of Artificial Intelligence & Machine Learning, Dayananda Sagar College of Engineering, Shavige Malleswara Hills, Kumaraswamy Layout, Bangalore-560111 Bangalore ----- 2)Ananya D Kulkarni Address of Applicant :Department of Artificial Intelligence & Machine Learning, Dayananda Sagar College of Engineering, Shavige Malleswara Hills, Kumaraswamy Layout, Bangalore-560111 Bangalore ----- 3)Dr. Reshma S Address of Applicant :Department of Artificial Intelligence & Machine Learning, Dayananda Sagar College of Engineering, Shavige Malleswara Hills, Kumaraswamy Layout, Bangalore-560111 Bangalore ----- 4)Prof . Ensteih Silvia Address of Applicant :Department of Artificial Intelligence & Machine Learning, Dayananda Sagar College of Engineering, Shavige Malleswara Hills, Kumaraswamy Layout, Bangalore-560111 Bangalore ----- 5)Prof . Deepahree Buchude Address of Applicant :Department of Artificial Intelligence & Machine Learning, Dayananda Sagar College of Engineering, Shavige Malleswara Hills, Kumaraswamy Layout, Bangalore-560111 Bangalore -----

(57) Abstract :
Microbots designed for cleaning water bodies represent a transformative approach to environmental remediation. In response to growing concerns about water pollution, these miniature robotic devices have emerged as a novel and efficient solution. Harnessing advanced technologies, microbots are equipped with sensors, propulsion systems, and cleaning mechanisms tailored to target specific contaminants in aquatic environments. The primary advantage of microbots lies in their diminutive size, enabling them to access confined or challenging areas where traditional cleanup methods fall short. With dimensions on the micro or even nanoscale, these robots navigate through water bodies with agility, reaching zones that larger vessels or human intervention cannot easily address. This capability proves especially crucial for tackling pollution in intricate ecosystems, such as rivers, lakes, or coastal areas. The functionality of these microbots is diverse. They come equipped with sensors capable of detecting various pollutants, ranging from chemical spills to microplastics. Once identified, the microbots employ specialized mechanisms for collection or neutralization, depending on the nature of the contaminant. This targeted approach minimizes collateral damage to the surrounding environment, distinguishing microbot-based cleanup from conventional methods that can be more invasive and disruptive. Moreover, microbots are designed to operate autonomously, guided by artificial intelligence algorithms or remote-control systems. This autonomy enhances their efficiency and responsiveness, allowing them to adapt to dynamic environmental conditions. Some models may even harness renewable energy sources, such as solar power or kinetic energy from water currents, ensuring sustainability in their operation. The deployment of microbots heralds a paradigm shift in water management strategies. Rather than relying solely on periodic, large-scale cleanup efforts, microbots offer a continuous, proactive solution to maintaining water quality. This constant vigilance is crucial for preserving ecosystems and safeguarding water resources for both human consumption and biodiversity.

No. of Pages : 9 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000975 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SMART SHOE FOR TERRAIN CLASSIFICATION BASED ON GROUND MATERIAL COMPOSITION

(51) International classification :A43B3/00, A61B18/14, A61B5/053, G01R27/02, G01R27/08 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Indian Institute of Technology Madras (IIT Madras) Address of Applicant :The Dean, Industrial Consultancy & Sponsored Research (IC&SR), Indian Institute of Technology Madras, Sardar Patel Road, IIT Post, Chennai, Tamil Nadu, India, 600 036 Chennai ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Sharma, Shubhanshu Address of Applicant :B – 18 Divine Park View Apartments, Abhay Khand-3, Indirapuram, Uttar Pradesh, India, 201014 Ghaziabad ----- 2)George, Boby Address of Applicant :ESB – 313, Department of Electrical Engineering, Indian Institute of Street City State Technology Madras, Chennai, Tamil Nadu, India, 600 036 Chennai ----- - -----

(57) Abstract :
SMART SHOE FOR TERRAIN CLASSIFICATION BASED ON GROUND MATERIAL COMPOSITION The present invention discloses a footwear for terrain recognition. The footwear (104) comprises a first electrode (106-1) for transmitting an electrical current to ground and a second electrode (106-2) for collecting the electrical current through the ground. The first electrode (106-1) and the second electrode (106-2) are maintained at equal and opposite phase source voltage. The footwear (104) further includes a processing element (108) for determining an impedance of the ground based on a phase difference between the source voltage and an output voltage corresponding to the electrical current received by the second electrode (106-2). The impedance of the ground is processed for identifying a type of the terrain corresponding to a value of the impedance of the ground. (Fig. 1)

No. of Pages : 39 No. of Claims : 10

(54) Title of the invention : A PORTABLE ELECTRONIC BIOSENSOR TO DETECT PROTEIN BIOMARKER OF CANCER

(51) International classification	:G01N0033543000, G01N0033530000, G01N0027120000, G01N0033574000, G01N0033680000	(71)Name of Applicant : 1)Indian Institute of Technology, Dharwad Address of Applicant :WALMI Campus, PB Road, Near High Court, Dharwad-580011, Karnataka, India Dharwad ----- ----- Name of Applicant : NA Address of Applicant : NA
(86) International Application No	:NA	(72)Name of Inventor : 1)Dr. Ruma Ghosh Address of Applicant :Department of Electrical, Electronics, and Communication Engineering, C/o Indian Institute of Technology, Dharwad, WALMI Campus, PB Road, Near High Court, Dharwad-580011, Karnataka, India Dharwad -----
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(87) International Publication No	: NA	3)Ms. Bolivia Konthoujam Address of Applicant :Department of Electrical, Electronics, and Communication Engineering, C/o Indian Institute of Technology, Dharwad, WALMI Campus, PB Road, Near High Court, Dharwad-580011, Karnataka, India Dharwad -----
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
A portable electronic biosensor to detect protein biomarker of cancer [0034] The present invention discloses portable electronic biosensor to detect protein biomarker of cancer. The said biosensor device (100) is made of a reduced graphene oxide (rGO) base transport layer (101), monoclonal cancer antigen 125 (CA 125) antibodies (102), bovine serum albumin (103), and DAQ unit (104) to detect the target, CA 125 (105). The device (100) comprising CA 125 antibodies (102) immobilized aids in specific binding of the CA 125 (105). The binding of the antigen (105) to the immobilized antibody (102) leads to a change in resistance which is hence measured by the data acquisition unit (104). The device (100) is highly specific to CA 125 (105) antigen and does not require any surface modification of rGO to immobilize the antibodies on it. The device (100) is easily operable, portable, label-free, stable and rapid.

No. of Pages : 16 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441000982 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : BOTANICAL PESTICIDE FORMULATION

(51) International classification :A01N0065000000, A01N0065420000, A01N0043653000, A01N0037440000, A61K0031197000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Insect pests and plant disease-causing pathogens that can damage the crops and transmit several plant pathogenic microbes to crops. The synthetic chemical pesticide causes several side effects on the environment and non-targeted species, and finally, insect pests and disease-causing pathogens develop resistance. The novel pesticides derived from plants are increasingly recognised as an option that can serve as an alternative to chemical pesticides. It has been discovered that Eleusine coracana seed powder, Lime juice, and Tamarind pulp mixed with tap water can be used to formulate botanically derived pesticides that are more effective against disease-causing plant pathogens. This invention reveals the composition of Eleusine coracana seed powder, Lime juice, and Tamarind pulp with tap water formulation as an effective pesticide that can be applied to protect against plant disease pathogens. This botanical-based formulation has several benefits, including being inexpensive, friendly to the environment, having no negative side effects, being effective, and being a target-specific green pesticide.

No. of Pages : 8 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :05/01/2024

(21) Application No.202441000984 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : FICUS EXASPERATA LEAF ASH (FELA) IN SELF-COMPACTING CONCRETE

(51) International classification :A61K0036600000, D04H0001495000, E04C0005160000, C04B0041000000, C10L0001020000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention is a Ficus Exasperata Leaf Ash (FELA) in self-compacting concrete is a method claim wherein, Ficus Exasperata leaves were dried and burned at a temperature of 100 – 150 degree Celusis and Upon burning process, the leaves were subjected to ball milling to yield Ficus Exasperata Leaf Ash. It is mitigating the risk of thermal cracking in large concrete structures and improving overall durability.

No. of Pages : 5 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001022 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SYSTEM AND A METHOD FOR DERIVING MULTILINGUAL MEETING MINUTES

(51) International classification :G06F0040300000, G10L0015260000, G10L0021020800, G10L0015220000, H04L0012180000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)SRM UNIVERSITY Address of Applicant :Amaravati, Mangalagiri, Andhra Pradesh-522502, India Guntur ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)KANNAPPAN JANAKIRAMAN Address of Applicant :Chief Strategy Officer, Green Pearl Education Management Corporation (GPEMC), SRM Group, 24, GN Chetty Road, T. Nagar, Chennai-600017, Tamil Nadu, India Chennai ----- 2)SIGINAMSETTY PHANI Address of Applicant :SRM University-AP, Neerukonda, Mangalagiri Mandal, Guntur-522502, Andhra Pradesh,India Guntur ----- 3)ASHU ABDUL Address of Applicant :SRM University-AP, Neerukonda, Mangalagiri Mandal, Guntur-522502, Andhra Pradesh,India Guntur -----

(57) Abstract :

ABSTRACT A SYSTEM AND A METHOD FOR DERIVING MULTILINGUAL MEETING MINUTES The present disclosure discloses a system (100) and a method(200) for deriving multilingual meeting minutes. The system(100) comprises a server(102) having a web application(102a) connected with at least one computing device(102b); an inputting module(106) to receive a video stream as an input in real-time; an audio preprocessing and diarization module(108) to process video stream to extract an audio stream and segment the audio stream and create transcripts for each segment of the audio stream; a text preprocessing module(110) to process the transcript to generate clean and normalized text; a summarizing module(112) to implement an NLP model and an NLU model to determine language detection from the normalized text and generate a summarization report and a sentiment analysis report; an evaluator module(114) to evaluate summarization report and sentiment analysis report to generate ROUGE and BLEU score metrics to measure the syntactic information of the text.

No. of Pages : 34 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001027 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN ELECTRODE MATERIAL FOR RECHARGEABLE BATTERIES COMPRISING ORTHORHOMBIC FERRIC HYDROXYSULFATE

(51) International classification :H01M4/02, H01M4/131,
H01M4/36, H01M4/485

(86) International Application
No :NA

Filing Date :NA

(87) International Publication
No : NA

(61) Patent of Addition to
Application Number :NA

Filing Date :NA

(62) Divisional to Application
Number :NA

Filing Date :NA

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(57) Abstract :

Rechargeable batteries are widely used for energy storage devices. Currently, electrodes comprising layered oxides based on Co, Ni, and Mn are used in rechargeable batteries. As Co and Ni are expensive, they drive the cost of rechargeable batteries. The present disclosure provides an electrode based on a sustainable 3d metal - iron. Specifically, the present disclosure provides an electrode comprising an orthorhombic polymorph of FeIISO4OH as an electrode material, a method of synthesis thereof, and an electrochemical device comprising the electrode. Figure 1(a)

No. of Pages : 18 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001059 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : ADVANCED ENERGY OPTIMIZATION SYSTEM AND METHOD FOR PHARMACEUTICAL HVAC APPLICATIONS

(51) International classification :F24F0011300000, G05B0015020000, F24F0011460000, F24F0110100000, F24F0011640000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

A system and method for optimizing energy consumption by a pharma Heating, Ventilation, and Air Conditioning (HVAC) is disclosed. The system may include a digital twin (112) of an HVAC (114) including at least one or more air handling units (AHUs) (114a). The digital twin (112) is based on design parameters and operational data. The system further includes an RL agent (202) that is configured to receive training and learn control strategies through interaction with at least environment models (112c) for generating policies. The RL agent (202) is further configured to output at least one policy including an optimal speed of one or more fans, which when implemented leads to savings in the energy consumption while maintaining at least required temperature, relative humidity, air changes per hour (ACPH), and pressure difference in a pharma room of the pharma plant.

No. of Pages : 70 No. of Claims : 20

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :05/01/2024

(21) Application No.202441001073 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD FOR ALERTING A DROWSING DRIVER IN A VEHICLE

(51) International classification :G08B0021060000, B60K0028060000, A61B0005000000, A61B0005180000, B60Q0009000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)VIT-AP University Address of Applicant :Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)S SUDHEER MANGALAMPALLI Address of Applicant :Assistant Professor Sr. Grade-1, School of Computer Science and Engineering, VIT-AP University, Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati ----- 2)VATTURI SAINADH Address of Applicant :Student, School of Computer Science and Engineering, VIT-AP University, Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati ----- 3)S SRI KRISHNADEVARAYALU Address of Applicant :Student, School of Computer Science and Engineering, VIT-AP University, Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati ----- 4)GUDURU DASTAGIRI Address of Applicant :Student, School of Computer Science and Engineering, VIT-AP University, Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati -----

(57) Abstract :

A system 100 and method to alert a drowsing driver 102 in a vehicle can include a camera module 104, a display unit 106, a buzzer 108; and a control unit 110 configured with and a Raspberry pi module 112 to capture real-time images 408 of the face of the driver 102; convert images 408 into grayscale frames; extract eye-region index 412 to calculate eye aspect ratio 414 using one or more image processing libraries; compare detected eye aspect ratio with a threshold eye aspect ratio 416; and activate alert mechanism to alert the driver 102 about drowsiness state, if the eye aspect ratio defines closeness of the eyes. The image processing libraries includes openCV, Imutils, SciPy library, and a Dlib shape predictor. The Raspberry Pi module 112 controls system 100 and utilizes libraries algorithms for calculation of eye aspect ratio 414, and transmits emergency message to family/friends if prolonged drowsiness is detected.

No. of Pages : 22 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001074 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : FLEXIBLE ELECTRICAL INSULATION CABLE FROM COIR FIBER PVC COMPOSITE AND METHOD OF PREPARATION THEREOF

(51) International classification :B32B27/30, C08K5/09, C08L27/06, H01B3/44, H01B7/04 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)VELLORE INSTITUTE OF TECHNOLOGY, CHENNAI Address of Applicant :Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)G. VENKATACHALAM Address of Applicant :Professor, Centre for Innovation and Product Development, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai - 600127, Tamil Nadu, India. Chennai ----- 2)P. SHENBAGA VELU Address of Applicant :Post Doctoral Fellow, School of Mechanical Engineering, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai - 600127, Tamil Nadu, India. Chennai ----- 3)S. ARAVINDH Address of Applicant :Research Scholar, School of Mechanical Engineering, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai - 600127, Tamil Nadu, India. Chennai -----

(57) Abstract :

The present disclosure relates to a flexible electrical insulation cable from coir fiber PVC composite comprising: 1-3 % w/w of a chemically treated coir fiber powder; 55-65 % w/w of a polyvinyl chloride; and 35-45 % w/w of dioctyl phthalate. The present disclosure also provides a method of preparation of flexible electrical insulation cable from coir fiber PVC composite. To strengthen the interfacial strength between the polymer and the fiber, chemical treatments are applied. Thus, electrical insulation properties and thermal conductivity are enhanced. The flexible electrical insulation cable of the present invention showed low dielectric constant value of 2.19, high resistance of 274.47 Giga-ohms and high thermal conductivity of 0.819 W/(m·K).

No. of Pages : 26 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001075 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD FOR DETECTION OF CANCER CELLS IN AN ORGAN

(51) International classification :G06N0020000000, G06N0003080000, G06T0007200000, G06N0003040000, G06T0007700000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present disclosure provides a system (100) and a method for detection of cancer cells in an organ. The system (100) includes image acquisition unit(s) configured to detect image(s) associated with abdomen(s). The system (100) generates pre-processed image(s) based on images (102) received as input from image acquisition unit(s). The system (100) detects the organ in the pre-processed images, detects cancer cells associated with the organ among the detected images of the organ and classifies the cancers cells into cancer category (categories) using a machine learning model. The system (100) may perform a pancreatic cancer detection (116) and the machine learning model may be based on a YOLO-NAS (Neural Architecture Search based You Only Look Once) Technique (112).

No. of Pages : 18 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001105 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AUTOMATIC SELF-CLEANING MOBILE TOILET

(51) International classification :E05D0015060000, E03D0005040000, E05B0001000000, B01D0021240000, E03D0011020000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The toilet has a self-cleaning system. This self-cleaning system when the user closes the door and opens the door to use the toilet. Water is stored in a tank underneath the toilet basin for cleaning. So the basin cleans as it moves up and down. Users do not need any guidance to use this toilet, just open and close the door. So it is easy for people to use.

No. of Pages : 8 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001109 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : DEVICE WITH MUSIC TO PROTECT THE WOUNDS

(51) International classification :A61F13/00, H03H9/00, H04R17/00		(71)Name of Applicant : 1)Manipal Academy of Higher Education Address of Applicant :Madhav Nagar, Manipal, 576104, Karnataka, India. Manipal -----
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(62) Divisional to Application Number	:NA	-----
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(57) Abstract :

The present disclosure relates generally to the field of medical. More specifically the present disclosure relates to a device with music to protect the wounds. The device (100) includes a plaster (102), an electronic circuit (104) and a waterproof cover (106). The electronic circuit (104) comprising an integrated circuit (104-1), a supply unit (104-2), a transistor (104-3), a piezo element (104-4) and a light-dependent resistor (LDR) (104-5). The integrated circuit (104-1) is embedded with digitally processed music data which is reproduced over the piezo element (104-4). Advantageously the present invention relates to a device with music to protect the wounds to grab the child's attention and distract them for a time period that is more than sufficient to place the bandage over the wound.

No. of Pages : 13 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001110 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SYSTEM FOR ENABLING DETECTION OF ANOMALIES IN DATA STREAM, AND METHOD THEREOF

(51) International classification :H04L0065600000, G06F0011140000, H04L0065800000, G06F0003048600, G06F0012020000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

Present disclosure discloses a system (102) enabling detection of anomalies in data stream processing and method thereof. System (102) receives one or more data pertains to digital record of one or more events occurred from one or more computing devices. Further, stores the data in sequential order of occurrence in one or more servers of at least one data streaming platform. System (102) allows one or more publishers to publish at least one streaming data to the data stored in the servers. System (102) allows one or more consumers to read the at least one streaming data from the data stored. System (102) checks for one or more anomalies during the read process of the at least one streaming data. Further, detects presence of the anomalies during the read process. System (102) notifies the publishers regarding the presence of the anomalies to take necessary actions and provide persistent data streaming.

No. of Pages : 28 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001111 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SPRING DEVICE FOR USE IN ORTHODONTICS

(51) International classification :A61C7/00, A61C7/12,
A61C7/14
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application :NA
Number :NA
Filing Date :NA
(62) Divisional to Application :NA
Number :NA
Filing Date :NA

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(57) Abstract :

The present disclosure relates generally to the field of medical particularly orthodontics. More specifically the present disclosure relates to a spring device for use in orthodontics. The device (100) includes a spring (102), a stopper (106) and a wire (108). The spring (102) is fabricated using the wire (108). The wire (108) extends from the stopper (106) to the spring (102) passively passed above a plurality of orthodontic brackets. The spring (102) is provided for traction of an impacted maxillary canine from a hard palate. The spring (102) provides a space in a maxillary arch to align the impacted maxillary canine simultaneously. Advantageously the present invention relates to a spring device with reduced treatment time for use in orthodontics.

No. of Pages : 16 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001128 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : METHOD FOR MANUFACTURING ELECTRODE FOR BATTERY ASSEMBLY

(51) International classification	:H01M0004040000, H01M0004505000, H01M0004525000, H01M0010052000, H01M0010052500	(71)Name of Applicant : 1)OLA ELECTRIC MOBILITY LIMITED Address of Applicant :Regent Insignia, #414, 3rd Floor, 4th Block, 17th Main, 100 Feet Road Koramangala Bangalore, Karnataka 560034, India ----- Name of Applicant : NA Address of Applicant : NA
(86) International Application No	:NA	(72)Name of Inventor : 1)MEKKAT, Rajesh Address of Applicant :OLA Battery Innovation Center, SALARPURIA INFOZONE, Velankani Drive, Doddathoguru, Electronics City Phase 1, Electronic City, Bengaluru, Karnataka 560100, India -----
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Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

ABSTRACT METHOD FOR MANUFACTURING ELECTRODE FOR BATTERY ASSEMBLY A method for manufacturing cathode electrode with modified coating pattern is described. According to an example of the present subject matter, the method comprises preparing a cathode slurry mixture by mixing cathode active materials and binders, coating the cathode active material layer onto a cathode current collector (200) to form a cathode active material layer, and calendaring the coated cathode current collector (200) by applying pressure with a set of plurality of rollers. The coating comprises distributing the cathode active material layer onto the cathode current collector (200) forming at least one uncoated region, wherein each of the at least one uncoated region is a strip of a predefined width along a length of the cathode current collector (200). The at least one uncoated region may be located such that a coated region exists between an edge of the at least one uncoated region and an edges of the cathode current collector (200).

No. of Pages : 21 No. of Claims : 14

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001131 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : MIGRATEEEASE: STREAMLINING GLOBAL OPPORTUNITIES

(51) International classification :G06Q0010100000, G06Q0010060000, G06Q0050260000, G09G0005377000, H04N0021431000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

MigrateEase, an innovative application for seamless global job relocation, introduces a paradigm shift in the employment landscape. With a user-friendly interface, individuals can input their career preferences, allowing sophisticated algorithms to match them with suitable international job opportunities. The platform features an intelligent in-built agent guiding users through visa applications and cultural adaptation. Real-time tracking ensures transparency for both users and hiring companies, while direct communication with destination embassies streamlines the visa process. MigrateEase revolutionizes the global job relocation experience, offering efficiency, security, and a user-centric approach to international employment.

No. of Pages : 10 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :05/01/2024

(21) Application No.202441001132 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : AI BASED SMART WRITTEN AND SPOKEN LANGUAGE ASSESSMENT DEVICE FOR TEACHING ENGLISH LANGUAGE FOR THE BLIND

(51) International classification :G06F0009451000, G06F0040580000, G06F0040253000, G09B0019060000, G10L0015000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :

Artificial Intelligence is a lifesaver. AI has a big potential to help break down barriers to communication. An advanced AI would be able to generate customized visual and audio output based on the recipient's requirements. AI would be familiar with a variety of vernacular, slang, and proverbs that are unique to a dialect of a language and are frequently foreign to proficient speakers. This can assist in removing barriers to communication that arise from a lack of shared language. Additionally, the AI translators assist pupils in learning in a language that they are familiar with. AI is becoming increasingly important in education. AI technologies can tailor tests to get the best results. An AI translation tool is a digital tool that uses technology to help translate text between multiple languages, either spoken or written. Thus, AI has the power to transform and pave the way for a brighter future.

No. of Pages : 11 No. of Claims : 1

(54) Title of the invention : INTELLIGENT SOLID WASTE SIEVING MACHINE FOR SIZE SORTING

(51) International classification :B03B0009060000, B65F0001140000, G06Q0010000000, B65F0001000000, B07B0009000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
Intelligent Solid Waste Sieving Machine for Size Sorting ABSTRACT: Separating and separating recyclable materials is an incredibly laborious and challenging step in the recycling procedure. This particular segment is also the most intricate. For recycling to be successful, it is essential that the sifting procedure be both efficient and effective. In order to optimize the recovery of valuable resources, reduce the amount of waste transported to landfills, and enable the repurposing of recyclable materials, it is critical to perform the process of component separation within waste streams. At the present time, a diverse range of technologies is commercially accessible with the capacity to perform sifting and separating operations. This technology-specific segment provides an overview of the most recent advancements in separation and sorting technologies. Composed of various materials including furniture, clothing, plastic bottles, food scraps, kitchen trash, metal, and non-metal, municipal solid refuse is colloquially referred to as rubbish. This classification includes plastic bottles, furniture, apparel, and wastepaper. Sorting machines and shredders for municipal solid waste are designed to process various refuse compositions, including municipal solid waste disc screening. The purpose of these devices is to optimize the recycling process of waste. The primary sources of solid waste produced by municipalities are commercial and residential activities. The composition of this refuse varies internationally due to a variety of factors, including geographic location, economic and social development, and climate. In addition to recyclable items, the majority of this waste comprises reusable materials such as metals, polymers, glass, and rubber. The amalgamation of chemical analysis and artificial intelligence has the potential to augment waste pyrolysis, estimation of carbon emissions, and energy conversion. Additionally, we investigate the potential utilization cases of artificial intelligence to optimize the effectiveness of refuse management systems within smart cities, concurrently mitigating the associated costs.

No. of Pages : 13 No. of Claims : 7

(54) Title of the invention : INTERNET OF THINGS (IOT) BASED CAMERA FOR SMART HEALTHCARE MANAGEMENT SYSTEM

(51) International classification :A61B5/00, G16H 10/00, G16H 15/00, G16H 20/00, G16H 50/00, G16H 80/00 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Dr.A.Umameswari Address of Applicant :Associate Professor, Department of CSE, SRM Institute of Science and Technology, Ramapuram Campus, Bharathi Salai, Ramapuram, Chennai Pin: 600089 District: Kanchipuram State: Tamilnadu Country: India ----- 2)Dr.Faritha Banu.J 3)Dr.S.Deepa 4)Dr. Sudhan.M.B 5)Dr.S.P.Maniraj 6)Dr.K.Raja Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr.A.Umameswari Address of Applicant :Associate Professor, Department of CSE, SRM Institute of Science and Technology, Ramapuram Campus, Bharathi Salai, Ramapuram, Chennai Pin: 600089 District: Kanchipuram State: Tamilnadu Country: India ----- 2)Dr.Faritha Banu.J Address of Applicant :Associate Professor, Department of CSE, SRM Institute of Science and Technology, Ramapuram Campus, Bharathi Salai, Ramapuram, Chennai Pin: 600089 District: Kanchipuram State: Tamilnadu Country: India ----- 3)Dr.S.Deepa Address of Applicant :Assistant Professor, Department of CSE, SRM Institute of Science and Technology, Ramapuram Campus, Bharathi Salai, Ramapuram, Chennai Pin: 600089 District: Kanchipuram State: Tamilnadu Country: India ----- 4)Dr. Sudhan.M.B Address of Applicant :Assistant Professor, Department of CSE, SRM Institute of Science and Technology, Ramapuram Campus, Bharathi Salai, Ramapuram, Chennai Pin: 600089 District: Kanchipuram State: Tamilnadu Country: India ----- 5)Dr.S.P.Maniraj Address of Applicant :Assistant Professor, Department of CSE, SRM Institute of Science and Technology, Ramapuram Campus, Bharathi Salai, Ramapuram, Chennai Pin: 600089 District: Kanchipuram State: Tamilnadu Country: India ----- 6)Dr.K.Raja Address of Applicant :Professor, Department of CSE, SRM Institute of Science and Technology, Ramapuram Campus, Bharathi Salai, Ramapuram, Chennai Pin: 600089 District: Kanchipuram State: Tamilnadu Country: India -----

(57) Abstract :
Internet of Things (IoT) based Camera for Smart Healthcare Management System ABSTRACT: Internet of Things (IoT) devices offer supplementary methods through which clinicians and patients can oversee their obligations. Nevertheless, users of multiple Internet of Things (IoT) devices while on the move, such as medical professionals and patients, face a combination of benefits and obstacles. Connected medical devices, also referred to as the Internet of Medical Things, constitute a sector of the Internet of Things industry that is expanding at a rapid rate. The estimated value of this enterprise by 2026 is \$176 billion. Acquiring an understanding of the diverse range of applications for IoMT devices is a fundamental prerequisite for the effective oversight, supervision, and protection of such devices within the healthcare sector. The primary application of the Internet of Things (IoT) in healthcare is remote patient monitoring, which involves the collection of vital physiological data (e.g., pulse rate and temperature) via sensors. In addition, the healthcare industry utilizes IoT for a multitude of supplementary objectives. It has been established by scientists that the Internet of Things (IoT) is capable of facilitating connections among a wide variety of medical instruments, sensors, and healthcare professionals. Patients can receive optimal medical care irrespective of their geographic location by implementing this approach. As a result, the healthcare sector has witnessed heightened operational effectiveness, enhanced patient security, decreased expenditures, and expanded availability of healthcare provisions.

No. of Pages : 12 No. of Claims : 7

(54) Title of the invention : ASSESSING THE EFFECTS OF TAX LAWS ON ECONOMIC GROWTH AND BUSINESS INVESTMENT

(51) International classification :G06Q 10/06, G06Q 30/02, G06Q 30/06 , G06Q 40/00 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)KALAIARASAN C Address of Applicant :Kalaiaarasan C Research Scholar, Room No: 101, Department of Commerce, IDE University of Madras, Chepauk, Chennai-600 005. ----- 2)Dr.R.PANCHALAN 3)Dr.B.HARISWARAN 4)Dr.A.Vini Infanta Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)KALAIARASAN C Address of Applicant :Kalaiaarasan C Research Scholar, Room No: 101, Department of Commerce, IDE University of Madras, Chepauk, Chennai-600 005. ----- 2)Dr.R.PANCHALAN Address of Applicant :Dr.R.PANCHALAN Professor of Commerce, Room No: 101, Department of Commerce, IDE, University of Madras, Chepauk, Chennai-600 005. ----- ----- 3)Dr.B.HARISWARAN Address of Applicant :Dr.B.HARISWARAN Assistant professor Department of Commerce Mar Gregorios College of Arts & Science, No 8 College Road, Mogappair West, Chennai- 600 037 - ----- 4)Dr.A.Vini Infanta Address of Applicant :Dr.A.Vini Infanta Assistant Professor, Department of Commerce -Professional Accounting, Sri Ramakrishna College of Arts & Science, Coimbatore -641006 ---- -----

(57) Abstract :
ABSTRACT ASSESSING THE EFFECTS OF TAX LAWS ON ECONOMIC GROWTH AND BUSINESS INVESTMENT This study investigates the impact of tax laws on economic growth and business investment, employing advanced economic modeling and historical data analysis. Examining the nuanced relationship between tax rates, structures, and incentives, our research identifies lower tax rates as potential drivers of increased business investment, fostering innovation and economic expansion. We explore the distributional impacts across income groups and the role of targeted tax incentives in shaping investment patterns. Additionally, the study highlights the importance of tax policy stability in influencing investment decisions. Our findings contribute to the ongoing discourse on designing balanced tax policies that promote both short-term economic stimulus and long-term fiscal responsibility, providing valuable insights for policymakers and stakeholders navigating the complex interplay of taxation and economic dynamics.

No. of Pages : 23 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001140 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AGRIINTEL: AN INTEGRATED AI-DRIVEN PLATFORM FOR SUSTAINABLE FARMING PRACTICES

(51) International classification :G06Q0050020000, G06Q0010060000, G06N0020000000, H04L0067120000, A01B0079000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

ABSTRACT AGRIINTEL: AN INTEGRATED AI-DRIVEN PLATFORM FOR SUSTAINABLE FARMING PRACTICES The present invention discloses a system and method for an integrated AI platform for sustainable farming practices, comprises one or more computing units with processors and memory units, one or more servers (including local and cloud-based), a suite of IoT devices and sensors for real-time data acquisition, a user interface for interaction with the platform, and a user device for data exchange and the system is configured to compile, archive, and process agricultural data. It includes a data collection interface for receiving data from sensors, satellites, and user inputs, and is capable of collecting and storing data such as regional crop suitability, crop yield, area under crop, price trend, consumption and others. Additionally, there are modules connected to the computing unit with a designated server for integrating and processing data from various sources, to provide various recommendations for sustainable farming practices.

No. of Pages : 36 No. of Claims : 13

(54) Title of the invention : DECENTRALIZED ARTIFICIAL INTELLIGENCE-BASED MEDICAL DIAGNOSIS SYSTEM USING BLOCKCHAIN AND IOT DEVICES

(51) International classification :G16H0010600000, G16H0050200000, A61B0005000000, H04L0009320000, G16H0050300000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Dr.T.Judgi, Sathyabama Institute of Science and Technology, Chennai Address of Applicant :Associate Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Chennai – 600119, Tamil Nadu, India. Chennai ----- 2)Dr.A.Christy, Sathyabama Institute of Science and Technology, Chennai 3)Dr.A.C.Santha Sheela, Sathyabama Institute of Science and Technology, Chennai 4)Dr.N.S.Usha, Sathyabama Institute of Science and Technology,Chennai 5)Dr.Suja Cherukullapurath Mana, Sathyabama Institute of Science and Technology, Chennai Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr.T.Judgi, Sathyabama Institute of Science and Technology, Chennai Address of Applicant :Associate Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Chennai – 600119, Tamil Nadu, India. Chennai ----- 2)Dr.A.Christy, Sathyabama Institute of Science and Technology, Chennai Address of Applicant :Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Chennai – 600119, Tamil Nadu, India. Chennai ----- 3)Dr.A.C.Santha Sheela, Sathyabama Institute of Science and Technology, Chennai Address of Applicant :Associate Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Chennai – 600119, Tamil Nadu, India. Chennai ----- 4)Dr.N.S.Usha, Sathyabama Institute of Science and Technology,Chennai Address of Applicant :Associate Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Chennai – 600119, Tamil Nadu, India. Chennai ----- 5)Dr.Suja Cherukullapurath Mana, Sathyabama Institute of Science and Technology, Chennai Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Chennai – 600119, Tamil Nadu, India. Chennai -----

(57) Abstract :
The present invention relates to a decentralized artificial intelligence (AI)-based medical diagnosis system that utilizes blockchain technology and Internet of Things (IoT) devices. The system includes a plurality of IoT devices, which are used to collect patient data, such as vital signs or medical images. This data is then transmitted to a decentralized AI network, where it is analyzed using machine learning algorithms to diagnose the patient's condition. The results of the analysis are stored on a blockchain, providing a secure and transparent record of the diagnostic process. This allows patients to have greater control over their own health data, while also enabling healthcare providers to access a more complete and accurate medical history for each patient. Additionally, the use of blockchain technology ensures that the diagnostic results cannot be altered or tampered with, ensuring the integrity and reliability of the system. Overall, this innovative approach has the potential to improve the accuracy and speed of medical diagnoses, leading to better outcomes for patients and reducing the burden on healthcare systems.

No. of Pages : 7 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001142 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A VENTILATED TRANSTIBIAL SOCKET

(51) International classification :A61F2/60, A61F2/76,
A61F2/78, A61F2/80

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to
Application Number :NA

Filing Date :NA

(62) Divisional to Application
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Filing Date :NA

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(57) Abstract :

A VENTILATED TRANSTIBIAL SOCKET The present disclosure relates to a ventilated transtibial socket. The ventilated transtibial socket comprises a receptacle configured to receive a user's stump from an upper end. A top adaptor is configured to couple with a lower end of receptacle and a bottom adaptor mount over a foot assembly. A flexible socket is interposed between the top adaptor and the bottom adaptor defined with a wall structured to form a central opening. A plurality of slots is provided on the wall that extend axially between a proximal end and a distal end of the wall forming a plurality of struts therebetween. The plurality of struts includes a first set of struts and a second set of struts configured to deform radially opposite to each other when subjected to a load applied by the user. Figure. 1

No. of Pages : 21 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :05/01/2024

(21) Application No.202441001143 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A DOOR LOCK SYSTEM INTEGRATED WITH LOCKABLE HINGES AND METHOD OF OPERATING THE SAME

(51) International classification :G07C0009000000, E05B0065100000, E05B0063140000, E05C0009040000, E05B0053000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Aditya Engineering College Address of Applicant :ADB Road, Aditya Nagar, Surampalem, East Godavari – 533437, Andhra Pradesh, India Surampalem ----- -- 2)Aditya College of Engineering and Technology 3)Aditya College of Engineering 4)Aditya College of Pharmacy 5)Aditya Pharmacy College 6)Aditya Degree College Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Pediredla Suryavenkatesh Address of Applicant :Assistant Professor, Dept of Humanities & Basic Sciences, Aditya Engineering College, ADB Road, Aditya Nagar, Surampalem, East Godavari-533437, Andhra Pradesh, India Surampalem ----- 2)Kammampati Venkata Ramana Address of Applicant :Assistant Professor, Dept of Electronics & Communication Engineering, Aditya College of Engineering and Technology, ADB Road, Aditya Nagar, Surampalem, East Godavari-533437, Andhra Pradesh, India. Surampalem ----- 3)Dr. G. Kiran Kumar Address of Applicant :Associate Professor, Dept of Computer Science & Engineering, Aditya College of Engineering, ADB Road, Aditya Nagar, Surampalem, East Godavari-533437, Andhra Pradesh, India. Surampalem ----- 4)P. Ratna Kumari Address of Applicant :Assistant Professor, Aditya Pharmacy College, ADB Road, Aditya Nagar, Surampalem, East Godavari-533437, Andhra Pradesh, India. Surampalem ----- 5)B. Hema Kiranmayi Address of Applicant :Assistant Professor, Aditya College of Pharmacy, ADB Road, Aditya Nagar, Surampalem, East Godavari-533437, Andhra Pradesh, India. Surampalem ----- 6)U. Mallikharjuna Rao Address of Applicant :Lecturer, Dept of Maths, Aditya Degree College, Shanti Nagar, Kakinada-533003, Andhra Pradesh, India. Kakinada ----- -----

(57) Abstract :

ABSTRACT: Title: A Door Lock System Integrated with Lockable Hinges and Method of Operating the Same The present disclosure proposes a door lock system (100) that provides a secure and convenient method for locking and unlocking one or more hinges using a single action of a latch bolt mechanism. The door locking unit (100) comprises a housing (103). The housing (103) comprises a first movable member (112), a second movable member (124), a cam member (110), and a primary hinge unit (104). The proposed door lock system (100) eliminates the need for a couple of user interventions to lock the door (12) to the door frame (22). The proposed door lock system (100) secures the door (12) in the required position based on the needs of the user. The proposed door lock system (100) utilises different aspects such as administrative buildings, manufacturing facilities, public institutions, hospitals, and commercial or residential properties.

No. of Pages : 30 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001144 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A LIMING AND DE-LIMING DEVICE AND METHOD FOR CONTINUOUSLY MONITORING AND EXAMINING ANIMAL HIDES

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(51) International classification	:A61B0005000000, C14C0001060000, F16H0061662000, C14C0001080000, C14C0003060000	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

ABSTRACT: Title: A Liming and De-Liming Device and Method for Continuously Monitoring and Examining Animal Hides The present disclosure proposes a liming and de-liming device (100) with a simplified design that enables a user to monitor and examine removal of hair from animal hides continuously, thereby determining whether the animal hides are suitable for further leather processing. The liming and de-liming device (100) comprises a platform (102), a supporting frame (104), a rotatable base (106), a driving unit (108), a worm gear (110), a container (112), plurality of sensors (114), a primary pulley (122), a driving belt (124), a secondary pulley (126), a drive assembly (127), a user interface (156), a controller (158), a power source (160) and a power button (162). The liming and de-liming device (100) that prevents labour-intensive procedures that demand significant time and physical effort, particularly for larger quantities of hides or skins.

No. of Pages : 26 No. of Claims : 10

(54) Title of the invention : A HYBRID DESALINATION DEVICE WITH AN IMPROVED OIL-WATER SEPARATION FUNCTION

(51) International classification (86) International Application No (87) International Publication No (61) Patent of Addition to Application Number (62) Divisional to Application Number Filing Date Filing Date Filing Date Filing Date Filing Date	:C02F0103080000, B01D0017020000, C02F0001140000, C02F0001040000, C02F0001380000 :NA :NA : NA :NA :NA :NA :NA :NA :NA	(71)Name of Applicant : 1)Aditya Engineering College Address of Applicant :ADB Road, Aditya Nagar, Surampalem, East Godavari – 533437, Andhra Pradesh, India. Surampalem ----- --- 2)Aditya College of Engineering and Technology 3)Aditya College of Engineering 4)Aditya College of Pharmacy 5)Aditya Pharmacy College 6)Aditya Degree College Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Varaprasad Bhemuni Address of Applicant :Professor, Dept of Mechanical Engineering, Aditya Engineering College, ADB Road, Aditya Nagar, Surampalem, East Godavari- 533437, Andhra Pradesh, India. Surampalem ----- -- 2)Dr. Puli Danaiah Address of Applicant :Associate Professor, Dept of Mechanical Engineering, Aditya College of Engineering and Technology, ADB Road, Aditya Nagar, Surampalem, East Godavari-533437, Andhra Pradesh, India. Surampalem ----- 3)N. Raju Address of Applicant :Assistant Professor, Dept of Mechanical Engineering, Aditya College of Engineering, ADB Road, Aditya Nagar, Surampalem, East Godavari-533437, Andhra Pradesh, India. Surampalem ----- 4)Y. Pavan Kumar Address of Applicant :Assistant Professor, Aditya Pharmacy College, ADB Road, Aditya Nagar, Surampalem, East Godavari-533437, Andhra Pradesh, India. Surampalem ----- 5)V. Bhargavi Address of Applicant :Assistant Professor, Aditya College of Pharmacy, ADB Road, Aditya Nagar, Surampalem, East Godavari-533437, Andhra Pradesh, India. Surampalem ----- 6)S T G S Bhashyam Address of Applicant :Lecturer, Dept of Maths, Aditya Degree College, Shanti Nagar, Kakinada-533003, Andhra Pradesh, India. kakinada ----- -----

(57) Abstract :
ABSTRACT: Title: A Hybrid Desalination Device with an Improved Oil-Water Separation Function The present disclosure proposes a desalination device (100) that assists in the removal of salt from an oil and water mixture, thereby enabling water to be separated from the oil. The hybrid desalination device (100) comprises a centrifugal chamber (102), a desalinizing member (108), an oil chamber (110) and a purification chamber (114). The proposed desalination device (100) combines centrifugal separation, ion exchange, and PSA for more efficient operation than typical desalination systems. The proposed desalination device (100) with the desalinizing member (108) effectively extracts salts and other contaminants from seawater. The proposed desalination device (100) with a sharp edge in a centrifugal chamber separates oil and water combination, reduces fouling of the ion exchanger, and improves overall device efficiency.

No. of Pages : 19 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001146 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN AUTOMATIC SIDE STAND RETRIEVAL SYSTEM FOR VEHICLES AND METHOD OF OPERATING THE SAME

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(51) International classification	:B62H0001020000, A61B0050360000, E01H0005060000, E21B0043140000, G06T0005500000	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

ABSTRACT: Title: An Automatic Side Stand Retrieval System for Vehicles and Method of Operating the Same The present disclosure proposes an automatic side stand retrieval system (100). The automatic side stand retrieval system (100) comprises a stand assembly (102), a drive sprocket compartment (122), and a locking unit (156). The drive sprocket compartment (122) comprises a drive unit (128), which is configured to convert clockwise and anticlockwise rotation of a drive shaft (127) to anticlockwise rotation of a drive member (130), thereby transmitting the anticlockwise rotation of the drive member (130) to the anticlockwise rotation of the driven member (106) through the primary Bowden cable (140) for lifting the stand (104) automatically. The locking unit (156) is configured to enable locking of the drive member (130), when the handle (12) is in locked position, thereby allowing the stand (104) to be in deployed position when the vehicle (10) is moved in at least one direction.

No. of Pages : 35 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :05/01/2024

(21) Application No.202441001147 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A PORTABLE MACHINE FOR APPLYING ADHESIVES TO SHOE SOLES AND METHOD THEREOF

(51) International classification :B60R0025240000, A43D0025180000, H05K0003300000, B24B0023020000, G07C0009000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT: Title: A Portable Machine for Applying Adhesives to Shoe Soles and Method Thereof The present disclosure proposes a portable machine (100) that is used in shoe manufacturing or repairing for applying an adhesive to a shoe sole 12 to attach them to a bottom part of the shoe upper 10 in a precise and uniform manner, thereby ensuring a secure attachment of the sole without manual intervention. The proposed portable machine (100) comprises a housing (102), a driving unit (112), a shoe upper inlet (104), a sole inlet (114), plurality of electro-active grippers (116), an artificial intelligence (AI) camera (118), an electro-active conveyor system (132), an adhesive applicator (136), an outlet (154) and a controller (150).The proposed machine (100) is cost-effective and easy to use. The proposed machine (100) eliminates manual intervention and significantly enhances output efficiency. The proposed machine (100) occupies less space and eliminates the requirement of skilled labour.

No. of Pages : 29 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001158 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : APPARATUS FOR SEGREGATING AND MOBILIZING ENTITIES FROM SUBSTRATE

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(51) International classification	:B08B3/02, B26F3/00	Name of Applicant : NA Address of Applicant : NA
(86) International Application No	:NA	(72)Name of Inventor :
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Filing Date	:NA	

(57) Abstract :

An apparatus (100, 300) for segregating and mobilizing entities (202) from a substrate (204) is disclosed. The apparatus (100) includes a first nozzle (102) configured to generate a first vortex ring (402) of a fluid in a first direction (D1) towards the substrate (204) when the fluid enters the first nozzle (102) to cause a scoop action by dislodging at least a portion of the entities (202) from the substrate (204). The apparatus (100) further includes a second nozzle (104) configured to generate a second vortex ring (406) of the fluid in a second direction (D2) towards the substrate (204) when the fluid enters the second nozzle (104) to cause a sweep action on the dislodged entities (404) to further mobilize the dislodged entities (404) away from the substrate (202). The second vortex ring (406) of the fluid is generated after a predetermined time interval from the generation of the first vortex ring (402) of the fluid. FIG. 1

No. of Pages : 25 No. of Claims : 10

(54) Title of the invention : THE ARTIFICIAL INTELLIGENCE REVOLUTION IN CRM: TRANSFORMING CUSTOMER RELATIONSHIP MANAGEMENT THROUGH TECHNOLOGICAL ADVANCEMENTS

(51) International classification :G06Q0030020000, G06Q0030000000, G06Q0010060000, C07K0014820000, G06Q0010100000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Dr A M Mahaboob Basha Address of Applicant :Patent Submission ----- 2)Dr. C. Gayathiri Devi 3)Ms. Aardhra Vasudevan 4)Mr. G. Dharma Vignesh 5)Dr. D.Priya 6)Ms. Aryashree B 7)Dr. E. Sakthipriya 8)Ms. R. Ramya 9)Dr. P Kavitha 10)Ms. P. Vanithamani Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr A M Mahaboob Basha Address of Applicant :Patent Submission ----- 2)Dr. C. Gayathiri Devi Address of Applicant :Sex: Female Country of Birth: India Designation: Assistant Professor Department: Commerce College: PSG College of Arts & Science, Civil Aerodrome PO, Coimbatore. PIN: 641014 State: Tamil Nadu District: Coimbatore Country: India ----- 3)Ms. Aardhra Vasudevan Address of Applicant :Sex: Female Country of Birth: India Designation: Teaching Associate Department: Legal Studies College: CMR University School of Legal Studies, 5, Chikka Banaswadi, OMBR Layout, Bengaluru PIN: 560043 State: Karnataka District: Bengaluru Country: India ----- 4)Mr. G. Dharma Vignesh Address of Applicant :Sex: Male Country of Birth: India Designation: Teaching Associate Department: Legal Studies College: CMR University School of Legal Studies, 5, Chikka Banaswadi, OMBR Layout, Bengaluru. PIN: 560043 State: Karnataka District: Bengaluru Country: India ----- 5)Dr. D.Priya Address of Applicant :Sex: Female Country of Birth: India Designation: Assistant Professor Department: Commerce College: PSG College of Arts & Science, Civil Aerodrome PO, Coimbatore. PIN: 641014 State: Tamil Nadu District: Coimbatore Country: India ----- 6)Ms. Aryashree B Address of Applicant :Sex: Female Country of Birth: India Designation: Research Scholar Department: Commerce College: Sri Ramakrishna College of Arts and Science for Women, Sarojini Naidu Road, Siddhapudur, Coimbatore. PIN: 641044 State: Tamil Nadu District: Coimbatore Country: India ----- 7)Dr. E. Sakthipriya Address of Applicant :Sex: Female Country of Birth: India Designation: Assistant Professor Department: Commerce College: PSG College of Arts & Science, Civil Aerodrome PO, Coimbatore. PIN: 641014 State: Tamil Nadu District: Coimbatore Country: India ----- 8)Ms. R. Ramya Address of Applicant :Sex: Female Country of Birth: India Designation: Assistant Professor Department: Law College: CMR University School of Legal Studies, 5, Chikka Banaswadi, OMBR Layout, Bengaluru. PIN: 560043 State: Karnataka District: Bengaluru Country: India ----- 9)Dr. P Kavitha Address of Applicant :Sex: Female Country of Birth: India Designation: Assistant Professor Department: Commerce College: DR.G.R.D College of Science, Civil Aerodrome Post Coimbatore. PIN: 641014 State: Tamil Nadu District: Coimbatore Country: India ----- 10)Ms. P. Vanithamani Address of Applicant :Sex: Female Country of Birth: India Designation: Assistant Professor Department: Commerce College: DR.G.R.D College of Science, Civil Aerodrome Post Coimbatore PIN: 641014 State: Tamil Nadu District: Coimbatore Country: India -----	

(57) Abstract :
Aim/Purpose: - The purpose of this study is to look into how Customer Relationship Management (CRM) has been affected by the revolution in artificial intelligence (AI). The main objective is to comprehend how AI technology developments affect CRM dynamics, with an emphasis on enhanced customer interactions, personalization, and overall efficiency. The goal is to shed light on how AI in CRM is transforming customer experience and what it means for organizations. Findings: The findings reveal a significant positive correlation between the integration of AI and enhanced CRM functionalities. All the factors have loaded at high and the mediation analysis with direct and indirect effect have proved significant and the direct and indirect effects also have proved well. Research Methodology/Design: Using a mixed-methods approach, this study blends empirical investigations with a thorough literature assessment. The study integrates insights from academic publications, industry reports, and case studies to examine the body of material currently available on AI in CRM. In order to provide a comprehensive overview of the topic, primary data is also gathered through surveys and interviews with professionals in the sector. Generalization: It is anticipated that the study's conclusions will advance the generalization of knowledge in a variety of CRM-using enterprises and sectors. It is predicted that the patterns and consequences found will provide generalizable ideas that may be applied to a wide range of business situations, even though the precise implementations of AI in CRM may differ. Social Relevance: This research has social relevance because it adds to the ethical discussion about AI in CRM and its possible effects on society. Businesses are able to responsibly improve customer experiences, promoting trust and ethical behaviors, by realizing the transformative potential of AI in customer management. Additionally, the study offers a framework on which industry executives and legislators may develop rules and policies for the moral application of AI in CRM, guaranteeing wider advantages to society.

(51) International classification :G09B0019000000, A63F0009180000, G06Q0050200000, A63F0001040000, G09B0019220000

(86) International Application No Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number Filing Date :NA

(62) Divisional to Application Number Filing Date :NA

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(57) Abstract :
DHARMAYUDH Dharmayudh is an innovative and immersive gaming experience inspired by the epic Mahabharata. It offers a unique blend of entertainment and education, bringing to life the ancient teachings of the Bhagavad Gita. In this game, players assume the roles of the legendary Pandava heroes and engage in epic battles against the formidable Kaurava enemies. Through strategic gameplay and captivating storytelling, Dharmayudh aims to impart moral values, critical thinking skills, and cultural awareness. The motivation behind Dharmayudh lies in the desire to bridge the gap between traditional wisdom and modern technology. The Bhagavad Gita holds profound wisdom and guidance for navigating the challenges of life, but reaching younger generations can be challenging in today's digital era. By combining the popularity of gaming with the timeless teachings of the Bhagavad Gita, Dharmayudh offers a captivating medium to introduce and reinforce these teachings to a wider audience. The game serves as a platform for players to experience the rich cultural heritage of India and explore the moral dilemmas faced by the Pandava heroes. By making the Bhagavad Gita accessible, engaging, and relevant, Dharmayudh aims to inspire players to apply these teachings in their own lives and foster virtuous decision-making. The impact of Dharmayudh extends beyond entertainment and gaming. By incorporating the Bhagavad Gita into an interactive experience, the game cultivates important life skills such as critical thinking, problem- solving, and ethical decision-making. Players are challenged to navigate complex scenarios and make choices that align with the teachings of the Bhagavad Gita. Through engaging gameplay, players develop a deeper understanding of moral values and cultural heritage while enhancing their cognitive abilities. Dharmayudh serves as a means to connect younger generations with ancient wisdom, fostering personal growth, cultural appreciation, and a sense of spiritual connection. By combining technology and tradition, the game aims to leave a lasting impact on players, inspiring them to lead virtuous lives in the modern world. FIG.1

No. of Pages : 18 No. of Claims : 1

(54) Title of the invention : AUTOMATED DIABETIC RETINOPATHY DETECTION THROUGH RETINAL VESSEL SEGMENTATION USING G-NET AND R-UNET

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(51) International classification	:G06N0003040000, G06N0003080000, G06T0007110000, G06K0009620000, G06T0007000000	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
AUTOMATED DIABETIC RETINOPATHY DETECTION THROUGH RETINAL VESSEL SEGMENTATION USING G-NET AND R-UNET The deep learning techniques have made remarkable progress in semantic segmentation, particularly in the field of medical image analysis. U-Net has emerged as widely adopted architecture for its effectiveness, an innovative model R2U-Net, which leverage the power of Recurrent Convolutional Neural Network (RCNN) and Recurrent Residual Convolutional Neural Network (RRCNN) respectively, while building upon the foundation of U-Net. The model combines the strengths of U-Net, Residual Network, and RCNN to enhance the performance of semantic segmentation tasks. The proposed segmentation architecture offers several key advantages. Firstly, the integration of residual units' aids in training deep networks, enabling better optimization and alleviating the vanishing gradient problem. Secondly, by incorporating recurrent residual convolutional layers, the model facilitates improved feature accumulation, resulting in more comprehensive and meaningful representations for segmentation tasks. Lastly, this approach allows for the development of advanced U-Net architectures while maintaining similar network parameters, ultimately achieving superior performance for medical image segmentation. To evaluate the effectiveness of the model, extensive experiments are conducted on the DRIVE dataset. The experimental results clearly demonstrate the significant performance gains achieved by our proposed models. These findings underscore the potential of our approach for advancing medical image segmentation tasks. FIG.1

No. of Pages : 16 No. of Claims : 1

(54) Title of the invention : GRID-CONNECTED WIND-PHOTOVOLTAIC COGENERATION USING BACK-TO-BACK VOLTAGE SOURCE CONVERTERS

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(51) International classification	:H02J3/00, H02J3/01, H02J3/06, H02J3/38, H02M1/12	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
GRID-CONNECTED WIND-PHOTOVOLTAIC COGENERATION USING BACK-TO-BACK VOLTAGE SOURCE CONVERTERS Our project introduces a new topology, yet simple and efficient, for a grid-connected wind-photovoltaic (PV) cogeneration system. A permanent magnet synchronous generator-based full scale wind turbine is interfaced to the utility-grid via back-to-back (BtB) voltage-source converters (VSCs). A PV solar generator is directly connected to the dc-link capacitor of the BtB VSCs. No dc/dc conversion stages are required, and hence the system efficiency is maximized. The proposed topology features an independent maximum power point tracking for both the wind and the PV generators to maximize the extraction of the renewable energy. The regulation of the VSCs is achieved via the vector control scheme in the rotating reference frame. The detailed small signal models for the system components are developed to investigate the overall stability. The influence of the utility-grid faults on the performance of the proposed system is also evaluated. Nonlinear time-domain simulation results under different operating conditions are presented to validate the effectiveness of the proposed topology. FIG.1

No. of Pages : 17 No. of Claims : 1

(54) Title of the invention : COMPARATIVE ANALYSIS OF DEEP LEARNING ALGORITHMS FOR GLAUCOMA CLASSIFICATION USING RETINAL IMAGES

(51) International classification :A61P0027060000, A61B0003000000, G06N0003080000, A61B0003120000, A61P0027020000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)G.Narayanamma Institute of Technology and Science(for Women) Address of Applicant :Shaikpet, Hyderabad-500104, Telangana, India. ----- ----- 2)Mrs.T.Swapna 3)Dr.K.Prasanna 4)Mrs.R.Mamatha 5)Mrs.N.Divya 6)Mrs.D.Anusha 7)Mrs.C.Bhagyasree 8)Y.S.R Varshitha Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Mrs.T.Swapna Address of Applicant :G.Narayanamma Institute of Technology and Science(for Women), Shaikpet, Hyderabad-500104, Telangana, India. ----- 2)Dr.K.Prasanna Address of Applicant :G.Narayanamma Institute of Technology and Science(for Women), Shaikpet, Hyderabad-500104, Telangana, India. ----- 3)Mrs.R.Mamatha Address of Applicant :G.Narayanamma Institute of Technology and Science(for Women), Shaikpet, Hyderabad-500104, Telangana, India. ----- 4)Mrs.N.Divya Address of Applicant :G.Narayanamma Institute of Technology and Science(for Women), Shaikpet, Hyderabad-500104, Telangana, India. ----- 5)Mrs.D.Anusha Address of Applicant :G.Narayanamma Institute of Technology and Science(for Women), Shaikpet, Hyderabad-500104, Telangana, India. ----- 6)Mrs.C.Bhagyasree Address of Applicant :G.Narayanamma Institute of Technology and Science(for Women), Shaikpet, Hyderabad-500104, Telangana, India. ----- 7)K.L.Sudeepthi Address of Applicant :G.Narayanamma Institute of Technology and Science(for Women), Shaikpet, Hyderabad-500104, Telangana, India. ----- 8)Y.S.R Varshitha Address of Applicant :G.Narayanamma Institute of Technology and Science(for Women), Shaikpet, Hyderabad-500104, Telangana, India. -----

(57) Abstract :
COMPARATIVE ANALYSIS OF DEEP LEARNING ALGORITHMS FOR GLAUCOMA CLASSIFICATION USING RETINAL IMAGES Glaucoma is a group of eye diseases that affect the optic nerve, which transmits visual information from the eye to the brain. Glaucoma affects 3.54% of people between the ages of 40 and 80 worldwide. If Glaucoma is not detected early, it can cause total damage to the optic nerve, resulting in vision loss that cannot be restored. Early analysis is carried out by inspecting the boundary of the optic cup and disc obtained from fundus images. The proposed methodology involves training and evaluating three deep learning architectures: CNN, VGG, and GCNet, using a large dataset of retinal images. The dataset consists of a balanced distribution of healthy and glaucomatous eyes. Initially, the images undergo preprocessing techniques, including resizing, normalization, to enhance the robustness and generalization capability of the models. The preprocessed images are then fed into the respective network architectures for feature extraction and classification. The proposed methods are evaluated using performance metrics such as accuracy, dice- coefficient, recall value, and precision. These metrics are examined, and the best method is identified. Performance evaluation metrics such as accuracy, precision, recall, and F1-score are used to assess the effectiveness of the proposed algorithms. The results demonstrate the potential of deep learning models in accurately identifying glaucomatous eyes. FIG.1

No. of Pages : 19 No. of Claims : 1

(54) Title of the invention : PORTABLE WORK STATION FOR ORAL CANCER SCREENING AND DETECTION AT COMMUNITY LEVEL

(51) International classification :A47B31/00, B01L9/02, B25H1/00 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Nitte University Address of Applicant :University Enclave, Medical Sciences Complex, Derakatte, Mangalore 575018 Mangalore ----- ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Urvashi Ashwin Shetty Address of Applicant :A B Shetty Memorial Institute Dental Sciences, Deralakatte, Mangalore 575018 Mangalore ----- ----- 2)Dr. Manisha Rai Address of Applicant :A B Shetty Memorial Institute Dental Sciences, Deralakatte, Mangalore 575018 Mangalore ----- ----- 3)Dr. Pushparaja Shetty Address of Applicant :A B Shetty Memorial Institute Dental Sciences, Deralakatte, Mangalore 575018 Mangalore ----- ----- 4)Dr Audrey Madonna DCruz Address of Applicant :A B Shetty Memorial Institute Dental Sciences, Deralakatte, Mangalore 575018 Mangalore ----- -----

(57) Abstract :

7. ABSTRACT Portable work station for oral cancer screening and detection at community level Lack of planned screening programmes for oral cancer at community level is due to lack of tools that can be used at community level, technical difficulties, time lag between sample collection and reporting. Normal biopsy procedures would require about 3-4 days for diagnosis of premalignant/ malignant lesions. We have designed a portable work station for oral cancer screening and detection at community level which is specifically designed to integrate state of the art tools in the field of Oral Pathology and Oral Diagnostics. The work station includes a simple, portable equipment with features like microtome, microscope, camera, touch screen monitor and software helps in the early and rapid diagnosis, digital storage of the collected data for documentation of pathologic lesions and also serve as an educative tool for patients. It is specifically designed for fast and early diagnosis using Exfoliative cytology and collecting and storing biopsy samples at the field site. This will serve as an efficient tool in screening of precancerous and cancerous lesions. Using this tool, accurate diagnosis can be done immediately at the field itself. Currently, the dental professionals manually scrape mucosal sample/ biopsy at the field settings, fix it in suitable solutions and send it to the Institution/ laboratory for processing. This would result in a minimum turnaround time of 7-10 days for reporting of the results. With the Workstation developed by us, it is possible to have an on spot, quick processing of the samples and hence facilitate early diagnosis and prompt treatment for the patient.

No. of Pages : 16 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :06/01/2024

(21) Application No.202441001168 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A NOVEL APPROACH FOR DETECTING AND LOCALISING MALICIOUS ATTACKS IN IOT-WSNS USING BLOCKCHAIN AND MACHINE LEARNING

(51) International classification :H04L0009060000, H04L0067120000, H04W0004700000,
H04L0009320000, H04W0012040000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to :NA
Application Number :NA
Filing Date :NA
(62) Divisional to Application :NA
Number :NA
Filing Date :NA

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(57) Abstract :
A NOVEL APPROACH FOR DETECTING AND LOCALISING MALICIOUS ATTACKS IN IOT-WSNS USING BLOCKCHAIN AND MACHINE LEARNING A method for the development of a block chain-based IoT sensor node authentication technique that proposes an IoT device that uses a block chain to secure a lightweight and reliable authentication programmed in an IoT environment using a low performance chipset, assigning a sequence number to each sensor node. The data processor can use the numerical value received from the sensor value collector to calculate an average value, sample the state received from the sensor logic state detector, and generate an input matrix using the average value and the sampled state. An IoT security service collects data from monitored IoT devices and possibly other related components, analyses the data to detect defined facilitators and indicators, and then uses the detected facilitators and indicators to calculate various security scores for individual devices or groups of devices. The IoT device may notify the gateway device that the communication is related to an attack and send it a sleep time period as well as a request to adjust a filtering rule defined at the gateway device. A WSN has been developing as a means of being aware of environmental technology such as sound, water contamination, temperature, pressure, motion, and other pollutants. FIG.1

No. of Pages : 17 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001249 A

(19) INDIA

(22) Date of filing of Application :05/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : BOTANICAL BASED MOSQUITO COIL

(51) International classification :A61K0036530000, A61P0031140000, A01N0065000000, A01N0065080000, A61K0036210000

(86) International Application No :NA

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(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

Malaria, dengue fever, yellow fever, filariasis, Japanese encephalitis, and, most recently, the Zika virus are among the pathogens that mosquitos transmit to humans. Plant-based insecticides and repellents are increasingly being recognized as a viable alternative to synthetic chemical based insecticides. The Ocimum americanum leaves methanol crude extract, Leucas aspera leaves methanol crude extract, Ocimum basilicum leaves methanol crude extract, sawdust, and cow dung have been found to be effective against adult mosquito repellent. The composition of an effective mosquito coil repellent that can be used to provide a protective effect against disease pathogens transmitted by mosquito vectors is revealed in this invention. This botanical-based formulation has a number of advantages, including the fact that it is inexpensive, environmentally friendly, has no negative side effects, is effective, and is a target-specific green mosquito repellent.

No. of Pages : 8 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001257 A

(19) INDIA

(22) Date of filing of Application :07/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : METHOD AND SYSTEM FOR TRANSFORMING STUDENT LEARNING WITH IMMERSIVE AUGMENTED REALITY CLASSROOMS

(51) International classification :G06Q0050200000, G06T0019000000, G09B0007000000, G09B0005060000, G09B0005120000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)CMR TECHNICAL CAMPUS (CMRTC) Address of Applicant :KANDLAKOYA VILLAGE, MEDCHAL MANDAL, R. R DISTRICT, HYDERABAD 501401 TELANGANA, INDIA Hyderabad ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. B. Kavitha Rani Address of Applicant :Professor, Dept. of Information Technology KANDLAKOYA VILLAGE, MEDCHAL MANDAL, R. R DISTRICT, HYDERABAD 501401 TELANGANA, INDIA Hyderabad ----- 2)M. Sivajyothi Address of Applicant :Assistant Professor, Dept. of Information Technology KANDLAKOYA VILLAGE, MEDCHAL MANDAL, R. R DISTRICT, HYDERABAD 501401 TELANGANA, INDIA Hyderabad ----- 3)G. Divya Address of Applicant :Assistant Professor, Dept. of Information Technology KANDLAKOYA VILLAGE, MEDCHAL MANDAL, R. R DISTRICT, HYDERABAD 501401 TELANGANA, INDIA Hyderabad ----- 4)G. Menaka Address of Applicant :Assistant Professor Dept. of Information Technology KANDLAKOYA VILLAGE, MEDCHAL MANDAL, R. R DISTRICT, HYDERABAD 501401 TELANGANA, INDIA Hyderabad ----- 5)K. Chandrakala Address of Applicant :Assistant Professor Dept. of Information Technology KANDLAKOYA VILLAGE, MEDCHAL MANDAL, R. R DISTRICT, HYDERABAD 501401 TELANGANA, INDIA Hyderabad -----

(57) Abstract :

METHOD AND SYSTEM FOR TRANSFORMING STUDENT LEARNING WITH IMMERSIVE AUGMENTED REALITY CLASSROOMS ABSTRACT The invention discloses a method and system aimed at revolutionizing student learning through Immersive Augmented Reality Classrooms (IARCs). Leveraging advanced augmented reality (AR) technology, the system provides a dynamic virtual learning environment where educational content is seamlessly integrated to deliver an immersive and personalized learning experience. Individual student preferences and learning styles are considered, with real-time tracking and analysis of student engagement and performance. The IARC system adapts content based on student interactions, ensuring tailored and effective learning experiences. Additionally, the invention introduces features such as virtual simulations, gamification elements, and collaborative capabilities across classrooms. By transforming traditional education into a dynamic and interactive AR-driven model, this invention redefines the landscape of student learning, promoting engagement, collaboration, and personalized educational pathways.

No. of Pages : 17 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :07/01/2024

(21) Application No.202441001258 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SOLAR WIRELESS ELECTRIC VEHICLE CHARGING SYSTEM

(51) International classification :B60L53/12, B60L53/122, B60L53/61, G05F1/66, H02J50/10, H02J50/12, H02J7/00

(86) International Application No :NA
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(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

This work describes the design of solar powered charging station for charging of electric vehicle describes design of solar powered charging station for charging of electric vehicle that solves the key downside of fuel and pollution. Electric vehicles have now hit the road worldwide and are slowly growing in numbers. Apart from environmental benefits electric vehicles have also proven helpful in reducing cost of travel by replacing fuel by electricity which is way cheaper. Well here we develop an EV charging system that solves with a unique innovative solution. This EV charging of vehicles without any wires, No need of stop for charging, vehicle charges while moving, Solar power for keeping the charging system going, No external power supply needed. The system makes use of a solar panel, battery, transformer, regulator circuitry, copper coils, AC to DC converter, at mega controller and LCD display to develop the system. The system demonstrates how electric vehicles can be charged while moving on the road, eliminating the need to stop for charging. Thus the system demonstrates a solar powered wireless charging system for electric vehicles that can be integrated in the road.

No. of Pages : 19 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001259 A

(19) INDIA

(22) Date of filing of Application :07/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A FRAMEWORK FOR PLANT LEAF DISEASE CLASSIFICATION

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(51) International classification	:G06N20/00, G06N3/0464, G06N3/096, G06Q50/02, G06T7/00, G06V20/52, G06V20/68, G06V20/70	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
This research introduces a comprehensive framework for the accurate classification of plant leaf diseases across a wide spectrum of crops. The dataset includes 38 distinct disease classes, encompassing common crops such as apples, corn, grapes, and tomatoes. Leveraging the power of Convolutional Neural Networks, our methodology excels in automating the identification and categorization of these diseases, significantly reducing the need for manual inspection and diagnosis. With a focus on enhancing agricultural practices and crop yield, the deep learning models employed here demonstrate exceptional precision and efficiency. These models have been meticulously trained on the diverse dataset to ensure robust and accurate disease recognition. The implications of this study extend to sustainable farming practices, increased crop productivity, and, ultimately, global food security. By addressing the complex task of plant leaf disease classification with a focus on diversity, this research paves the way for a more resilient and technology-driven agriculture sector capable of tackling evolving crop diseases effectively.

No. of Pages : 21 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :07/01/2024

(21) Application No.202441001260 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SECURE BIOMETRIC-BASED ACCESS CONTROL SYSTEM USING BLOCKCHAIN WITH ZERO KNOWLEDGE PROOF

(51) International classification :H04L0009320000, H04L0009080000, G06F0021600000, H04L0009060000, G06F0021620000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Access control is the trivial element of security. It aims to protect the data by reducing the risk of unauthorized intrusion. The proposed system is a novel decentralized secure access control system that leverages blockchain with ZKP, and facial recognition for sensitive data protection. Facial recognition technology is employed for identity verification of authorized personnel, utilizing captured images during registration for secure authentication of data (paper records, hard disks, on-premise storage servers, digital storage, etc.). It utilizes ZKPs to authenticate users without revealing their face data and their secret keys (used for face data encryption) to the server, ensuring robust authentication while maintaining privacy. The system uses smart contracts deployed in blockchain to decentralize the proof verification. It also provides additional security by having a hash of secret keys and the hash of encrypted face images in the blockchain making the system tamper-proof, thus enhancing the security of data stored in the database (public key with encrypted face images).

No. of Pages : 10 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001261 A

(19) INDIA

(22) Date of filing of Application :07/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : DESIGN AND DEVELOPMENT OF DETACHABLE COMPUTER MOUSE

(51) International classification :G06Q0010060000, G06F0030000000, G06Q0010040000, B32B0027300000, B32B0027080000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Increasing productivity while reducing the material requirement is one of the goals of manufacturing industries. In this project, by remodelling the design of the computer mouse the material requirement is reduced concurrently maintaining its workability. This project focuses on remodelling the existing mouse designs, making the parts of the mouse detachable and improving the reusability of the mouse. Most of the damaged computer mouse are dumped which is causing an increase in wastage. The honeycomb design is a popular technique used in the manufacturing of computer mouse to reduce the amount of material used in the mouse while maintaining its strength and durability. This design involves creating a series of small, hexagonal-shaped holes in the shell of the mouse, resulting in a lightweight and breathable structure. By using the honeycomb design, manufacturers can reduce the overall weight of the mouse while still maintaining its structural integrity, making it easier to move around and use for extended periods. In addition, the design can also improve airflow and ventilation, which can help reduce heat buildup and improve comfort during use.

No. of Pages : 10 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001266 A

(19) INDIA

(22) Date of filing of Application :07/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SMART TRAFFIC CONTROL SYSTEM

(51) International classification :G08G0001010000, G08G0001096700, G06Q0010060000, G06Q0050260000, G08G0001080000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The Smart Traffic Control System is an advanced traffic management solution designed to address the escalating challenges posed by urbanization, traffic congestion, and environmental sustainability in modern cities. This system comprises a network of sensors, AI-driven algorithms, and communication infrastructure to enable real-time traffic monitoring and congestion reduction. The AI algorithms predict traffic patterns, identify congestion points, and dynamically adjust traffic signals to optimize traffic flow. Additionally, the system incorporates vehicle-to-infrastructure (V2I) and vehicle-to-vehicle (V2V) communication capabilities for real-time updates to drivers, enhancing road safety and reducing accidents. It contributes to sustainable urban development by reducing emissions and improving air quality, while also providing valuable data insights for urban planning decisions. Furthermore, the Smart Traffic Control System stimulates economic growth by fostering a technology sector focused on smart city solutions through collaborations with tech companies, startups, and municipal governments. Overall, this invention represents a significant leap forward in urban transportation and traffic control, promising to transform the way we experience and navigate modern cities.

No. of Pages : 19 No. of Claims : 10

(54) Title of the invention : DESIGN AND DEVELOPMENT OF IOT DRIVEN MULTI-LAYERED SECURITY SYSTEM USING CRYPTOGRAPHY AND STEGANOGRAPHY

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(51) International classification	:H04L0009060000, H04L0009320000, G06F0021600000, H04L0067120000, H04L0009080000	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
The proposed invention introduces a multi-layered security system designed to address the escalating security challenges posed by the Internet of Things (IoT). This innovative system combines the strengths of cryptography and steganography to provide comprehensive protection for IoT data and communications. Cryptographic modules utilize advanced encryption algorithms to ensure the confidentiality and integrity of data during transmission and storage, while steganographic modules hide encrypted data within seemingly innocuous digital carriers, making it exceedingly difficult for unauthorized parties to detect concealed information. This IoT-driven security solution is adaptable to diverse ecosystems, operates efficiently on resource-constrained devices, and anticipates future threats, thereby fostering trust in the continued growth and innovation of IoT technologies.

No. of Pages : 20 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001268 A

(19) INDIA

(22) Date of filing of Application :07/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : HERBAL PESTICIDE FORMULATION AGAINST LEAF CURL DISEASE

(51) International classification :A01N0065000000, A61P0031120000, A01H0005080000, A01N0065220000, A01N0065360000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Leaf curl disease is a common plant disease caused by viruses such as the tomato leaf curl virus and the peach leaf curl virus. It primarily affects Solanaceae and Rosaceae plants, including tomatoes, peppers, potatoes, and peaches. Infected plants exhibit distinct symptoms such as leaf curling and distortion, yellowing, stunted growth, and decreased yields. Infected seeds, whiteflies, aphids, or contaminated tools spread the disease. Farmers use various synthetic chemical pesticides to control leaf curl disease, but repeated use of chemical pesticides eventually leads to virus resistance, and the chemicals pollute the green environment and harm non-target species. This current formulation discovered that wood ash, Azadirachta indica seed powder, Annona squamosa seed powder, and distilled water can be used to formulate effective and low-cost herbal pesticides. This invention discloses the composition of an effective botanical-based pesticide that can be used to combat leaf curl disease in Capsicum annum crops. This botanical-based formulation has several advantages, including being inexpensive, environmentally friendly, free of negative side effects, effective, and a target-specific green mosquito repellent.

No. of Pages : 8 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001269 A

(19) INDIA

(22) Date of filing of Application :07/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : BOTANICAL BASED PLANT GROWTH PROMOTER

(51) International classification :A01N0065000000, C05F0011000000, C05F0011100000, C05G0003600000, C05B0017000000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

Chemical plant growth promoters can pollute the environment, hurt beneficial organisms, and cause pests or diseases to become resistant. Parthenium hysterophorus, Bambusa arundinacea, fermented buttermilk, and jaggery are botanical-based plant growth promoters that stimulate plant growth, development, and the overall health of the crops. These promoters, which can include Parthenium hysterophorus, Bambusa arundinacea leaf extracts, fermented buttermilk, and jaggery formulations, are highly effective for plant growth-promoting effects. These formulations have several advantages, such as increasing nutrient uptake, improving root development, promoting hormonal balance, and increasing stress tolerance. Botanical growth promoters have been shown to increase crop yield, improve quality attributes, increase resistance to diseases and pests, and reduce the negative effects of abiotic stresses. Furthermore, these natural products are regarded as environmentally friendly and sustainable alternatives for enhancing plant growth in agricultural and horticultural practises.

No. of Pages : 8 No. of Claims : 1

(54) Title of the invention : INNOVATIVE FINANCIAL INCLUSION SOLUTIONS FOR REFUGEE LIVELIHOODS

(51) International classification :G07F0019000000, G06Q0040060000, G06Q0050260000, G06Q0040020000, G06F0021620000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr. Maneesh P Address of Applicant :Assistant Professor, Department of Economics, School of Liberal Arts and Applied Sciences, Hindustan Institute of Technology and Science (Deemed to be University) Chennai, Tamil Nadu, India ----- 2)Dr. D. Murugesan 3)Dr. N. Periyamayan Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Maneesh P Address of Applicant :Assistant Professor, Department of Economics, School of Liberal Arts and Applied Sciences, Hindustan Institute of Technology and Science (Deemed to be University) Chennai, Tamil Nadu, India ----- 2)Dr. D. Murugesan Address of Applicant :Assistant Professor, Division of Criminology, School of Sciences, Arts & Media, Karunya Institute of Technology & Sciences (Deemed to be University), Coimbatore, Tamil Nadu ----- 3)Dr. N. Periyamayan Address of Applicant :Assistant Professor, Department of Economics, Vivekanandha College of Arts and Sciences for Women (Autonomous) Elayampalayam, Tiruchengode (T. K), Namakkal (D.t), Tamil Nadu -----

(57) Abstract :
present invention is a visionary approach to addressing the financial exclusion crisis faced by refugees worldwide. Leveraging cutting-edge financial technology, blockchain identity verification, and tailored microfinance initiatives, our proposed system empowers refugees to access secure and user-friendly financial services, fostering economic stability and self-reliance. Collaborative partnerships between governments, humanitarian organizations, and the private sector are pivotal in delivering these solutions effectively. Aligned with global sustainable development goals, our invention reduces poverty, inequalities, and gender disparities among refugee populations. It adapts to diverse circumstances, offering a flexible framework for different refugee groups. By enabling refugees to rebuild their lives and contribute to their host communities, our system not only benefits individuals but also alleviates the burden on humanitarian organizations and governments. Privacy and security are paramount, ensuring data protection and transaction security. Innovative Financial Inclusion Solutions for Refugee Livelihoods envisions a world where financial stability transcends displacement boundaries, promoting a more inclusive and equitable future. Accompanied Drawing [FIGS. 1-2]

No. of Pages : 22 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :07/01/2024

(21) Application No.202441001272 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : NOVEL AND RELIABLE SENSORLESS INDUCTION MOTOR SPEED CONTROL

(51) International classification :G05B11/38, H02P21/00, H02P21/22,
H02P23/00, H02P27/04
(86) International Application :NA
No :NA
Filing Date :NA
(87) International Publication : NA
No : NA
(61) Patent of Addition to :NA
Application Number :NA
Filing Date :NA
(62) Divisional to Application :NA
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Filing Date :NA

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(57) Abstract :

[051] The proposed invention introduces a novel and reliable sensorless induction motor speed control system that leverages advanced algorithms and machine learning techniques for real-time speed and position estimation. By eliminating the need for external sensors, this system reduces operational costs, maintenance downtime, and the environmental impact associated with sensor production and disposal. It offers adaptable control for various motor loads and operating conditions, making it suitable for a wide range of industrial applications. In manufacturing, it enhances product quality and production efficiency, while in the automotive sector, it improves electric vehicle performance and extends battery life, aligning with sustainability efforts. Additionally, in robotics, it enables precise and agile motion control, making it ideal for Industry 4.0 and smart manufacturing environments. This invention represents a significant milestone in electrical engineering and control systems, fostering innovation and sustainability across industries. Accompanied Drawing [FIGS. 1-2]

No. of Pages : 20 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :07/01/2024

(21) Application No.202441001274 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : ADVANCED METHODS IN CHEMOSELECTIVE CLICK CHEMISTRY FOR ORGANIC SYNTHESIS

(51) International classification :C07B53/00
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The proposed invention encompasses a comprehensive system for advancing the field of chemoselective click chemistry. It introduces novel methods, catalysts, and techniques that enable highly efficient and selective chemical reactions between diverse functional groups, revolutionizing the synthesis of complex organic compounds. By reducing waste, energy consumption, and the generation of unwanted byproducts, this invention offers significant environmental and sustainability benefits. Its applications span across pharmaceuticals, materials science, and biotechnology, accelerating drug discovery, enhancing materials properties, and enabling the creation of bioconjugates for targeted drug delivery and diagnostics. Moreover, this invention fosters collaboration, education, and knowledge sharing among scientists, inspiring interdisciplinary approaches and pushing the boundaries of scientific exploration. In summary, this groundbreaking invention promises to reshape the landscape of organic chemistry, drive innovation, and address pressing global challenges while advancing scientific progress.

No. of Pages : 22 No. of Claims : 10

(54) Title of the invention : IMPLEMENTING A BIG DATA-DRIVEN HUMAN RESOURCE MANAGEMENT SYSTEM (HRMS) TO PROTECT SENSITIVE BUSINESS DATA

(51) International classification	:G06Q0010060000, G06Q0010100000, G06F0021620000, G06F0021600000, H04W0036260000
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA
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(57) Abstract :	The invention relates to a Big Data-driven Human Resource Management System (HRMS) designed to optimize HR data management, analytics, and security. The HRMS integrates data aggregation, analytics, and security features to provide organizations with a comprehensive solution. Predictive analytics capabilities enable forecasting of workforce trends, while real-time data processing ensures agility in response to changing HR dynamics. The system incorporates robust encryption, access controls, and intrusion detection for data security. The invention further encompasses a method for securing HR data, computer-readable instructions for HRMS implementation, and scalable, cloud-based architecture for accessibility. This innovation marks a significant leap in HRMS technology, empowering organizations to make data-driven decisions, safeguard sensitive information, and proactively manage their human capital.

(54) Title of the invention : IMPLEMENTING ARTIFICIAL INTELLIGENCE ALGORITHMS: THE DESIGN AND IMPLEMENTATION OF A HUMAN RESOURCE OPTIMIZATION AND DECISION SYSTEM

(51) International classification :G06Q0010060000, G06Q0010100000, G06F0009500000, G16H0080000000, G06Q0050160000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
The Human Resource Optimization and Decision System disclosed herein represents a pioneering integration of advanced artificial intelligence algorithms into human resource management. Designed to enhance organizational efficiency, the system features modules for data input, analysis, and decision-making, offering real-time insights and recommendations to HR professionals. Additional embodiments cater to adaptive learning and skill development, ensuring continuous workforce improvement, and an employee engagement and well-being monitoring module that prioritizes the holistic health of the workforce. With adaptability, transparency, and seamless integration capabilities, this system provides a comprehensive solution for optimizing talent acquisition, resource allocation, and overall human resource processes, contributing to a more agile, skilled, and satisfied workforce in the dynamic landscape of modern organizations.

No. of Pages : 19 No. of Claims : 6

(54) Title of the invention : HEURISTIC NEURAL NETWORK ALGORITHM DEVELOPMENT FOR THE PREDICTION OF UNDERSEA OCEAN PARAMETERS

(51) International classification (86) International Application No (87) International Publication No (61) Patent of Addition to Application Number (62) Divisional to Application Number	:G06N0003080000, G06N0003000000, G06Q0050020000, G06Q0010040000, G06N0003040000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)Dr.D.Menaka, Sathyabama Institute of Science and Technology Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Jeppiaar Nagar, SH 49A, Chennai, Tamil Nadu 600119. Chennai ----- 2)Ms.M.Gowri, Sathyabama Institute of Science and Technology 3)Ms.G.Kavitha, Sathyabama Institute of Science and Technology 4)Ms.G.Anbuselvi, Sathyabama Institute of Science and Technology 5)Dr. Dasari Naga Vinod, Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology 6)Dr.S.Nivetha, Sathyabama Institute of Science and Technology Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr.D.Menaka, Sathyabama Institute of Science and Technology Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Jeppiaar Nagar, SH 49A, Chennai, Tamil Nadu 600119. Chennai ----- 2)Ms.M.Gowri, Sathyabama Institute of Science and Technology Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Jeppiaar Nagar, SH 49A, Chennai, Tamil Nadu 600119. Chennai ----- 3)Ms.G.Kavitha, Sathyabama Institute of Science and Technology Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Jeppiaar Nagar, SH 49A, Chennai, Tamil Nadu 600119. Chennai ----- 4)Ms.G.Anbuselvi, Sathyabama Institute of Science and Technology Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Jeppiaar Nagar, SH 49A, Chennai, Tamil Nadu 600119. Chennai ----- 5)Dr. Dasari Naga Vinod, Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology Address of Applicant :Assistant Professor, Department of Electronics and Communication Engineering, Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Avadi-Vel Tech Road Vel Nagar, Avadi, Chennai, Tamil Nadu 600062 Chennai ----- 6)Dr.S.Nivetha, Sathyabama Institute of Science and Technology Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Jeppiaar Nagar, SH 49A, Chennai, Tamil Nadu 600119. Chennai -----

(57) Abstract :

There is growing interest in fields related to the ocean, and forecasting oceanographic parameters is a crucial part of defining future climatology. Sea Surface Temperature (SST)-related issues are predicted by the conventional methods in use today, but not those pertaining to other ocean factors. This research proposes a Heuristic Neural Network (HNN) model that uses Particle Swarm Optimisation (PSO) at three different locations—the Arctic Ocean, the Bay of Bengal, and the Indian Ocean—to more accurately anticipate the future climate. The data gathered by the Ministry of Earth Sciences' Array for Real-Time Geostrophic Oceanography (ARGO) includes the horizontal and vertical conditions with geographical and temporal distributions at 2000 metres in the ocean forecasting parameters.

No. of Pages : 11 No. of Claims : 4

(54) Title of the invention : ACCOUNTING AND ANALYTICAL MODEL FOR THE RISK MANAGEMENT OF THE ECONOMIC SECURITY OF THE POULTRY ENTERPRISE

(51) International classification :G06Q0010060000, G06Q0040000000, G06Q0010040000, G06Q0040080000, G06Q0040060000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Dr. Khaja Mohinuddeen J Address of Applicant :Associate Professor, Ballari Institute of Technology and Management (Autonomous), Ballari, Pin: 583104, Karnataka, India. ----- 2)Dr. B. Hari Babu 3)Dr. Manjusha Goel 4)Dr. M. Suresh Kumar 5)Dr. Bhadrappa Haralayya 6)Dr. Rachana Saxena 7)Ms. Harsimran Kaur 8)Ms. Radha. T 9)Mr. Faissal Ullah Khan 10)Dr. E. Gopi 11)Dr. Harikumar Pallathadka Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Khaja Mohinuddeen J Address of Applicant :Associate Professor, Ballari Institute of Technology and Management (Autonomous), Ballari, Pin: 583104, Karnataka, India. ----- 2)Dr. B. Hari Babu Address of Applicant :Sr. Assistant Professor, Department of Management Studies, Vignan’s Foundation for Science, Technology and Research (Deemed to be University), Vadlamudi, Guntur, Pin: 522213, Andhra Pradesh, India. ----- 3)Dr. Manjusha Goel Address of Applicant :Associate Professor, Raj Kumar Goel Institute of Technology, Delhi Meerut Road, 5th Mile Stone, Ghaziabad, Pin: 201003, Uttar Pradesh, India. ----- - 4)Dr. M. Suresh Kumar Address of Applicant :Assistant Professor, Dr. SNS Rajalakshmi College of Arts and Science, Coimbatore, Pin: 641049, Tamilnadu, India. ----- 5)Dr. Bhadrappa Haralayya Address of Applicant :Professor and HOD, Department of MBA, Lingaraj Appa Engineering College, Bidar, Pin: 585403, Karnataka, India. ----- 6)Dr. Rachana Saxena Address of Applicant :Professor, School of Commerce, Jain (Deemed-to-be University), Bangalore, Pin: 560069, Karnataka, India. ----- 7)Ms. Harsimran Kaur Address of Applicant :Assistant Professor, University School of Business, Chandigarh University, Mohali, Pin: 140413, Punjab, India. ----- 8)Ms. Radha. T Address of Applicant :Assistant Professor, St. Clare College, Jalahalli, Bangalore, Pin: 560013, Karnataka, India. ----- 9)Mr. Faissal Ullah Khan Address of Applicant :Assistant Professor, H.R. Institute of Science and Technology, Morta, Ghaziabad, Pin: 201206, Uttar Pradesh, India. ----- 10)Dr. E. Gopi Address of Applicant :Associate Professor, Jeppiaar Engineering College, Jeppiaar Nagar, OMR, Semencherry, Chennai, Chengalpattu, Pin: 600119, Tamilnadu, India. ----- - 11)Dr. Harikumar Pallathadka Address of Applicant :Director and Professor, Manipur International University, Ghari, Imphal, Imphal West, Pin: 795140, Manipur, India. -----

(57) Abstract :
The proposed invention encompasses an innovative Accounting and Analytical Model tailored explicitly for the poultry industry, introducing a holistic approach to risk management for enhanced economic security. By seamlessly integrating financial data, operational metrics, and risk indicators through advanced algorithms, the model provides comprehensive insights into the economic landscape of poultry enterprises. The invention facilitates proactive decision-making by identifying potential risks, forecasting economic scenarios, and suggesting tailored mitigation strategies. This transformative model aims to empower poultry farmers with the tools needed to navigate market uncertainties, optimize operational efficiency, and fortify their economic resilience, thereby fostering sustainable practices within the dynamic realm of poultry farming.

No. of Pages : 18 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :08/01/2024

(21) Application No.202441001283 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : FORMULATION OF A CHEAP FRUIT FLY TRAP WITH A BOTANICAL BASE

(51) International classification :A01K0067033000, A01N0037460000, A01M0001100000, C05G0003600000, A01N0063500000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

The fruit fly can be found all over the world, mostly in warm, humid environments. They frequently congregate around fruits, vegetables, and other organic matter, which also serves as their main food source and nesting area. Fruit flies are frequently regarded as a pest annoyance in homes, supermarkets, and food processing facilities. This insect pest caused a lot of financial losses. Farmers use a variety of synthetic chemical pesticides to control fruit flies, but continued use of these pesticides eventually breeds insect pest resistance, pollutes the environment, and harms non-target species. With the help of the current botanical-based formulation, it was discovered that an efficient and inexpensive herbal fruit fly trap could be made using the crude extract of Ocimum basilicum leaf, lecithin, and eugenol. The composition of a fruit fly trap that is effective against the Drosophila suzukii insect pest. Among its many benefits are its low cost, environmental friendliness, lack of unfavourable side effects, effectiveness, and ability to specifically target insect pests.

No. of Pages : 8 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001284 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : LOW-COST MOSQUITO REPELLENT STICK

(51) International classification :A61K0036670000, A61K0036530000, A01N0065000000, A01N0065080000, A61P0031140000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

Mosquitoes transmit a variety of pathogens that cause disease in humans. Malaria, dengue fever, yellow fever, filariasis, Japanese encephalitis, and, most recently, the Zika virus are all caused by these pathogens, which are transmitted by mosquitoes. Mosquito repellents derived from aromatic plants are becoming more popular as a natural alternative to synthetic chemical insecticides. Annona squamosa L seed powder, Cyamopsis tetragonoloba gum, Azadirachta indica L. leaves, Leucas aspera leaves, Fruits of Aegle marmelos, Piper betle L. leaves, Citrus limetta peel, coconut shell, and Sawdust ingredient formulations have been discovered to be effective plant-derived mosquito repellents against Aedes aegypti mosquito. This botanical component-based formulation showed very effective mosquito repellent against dengue mosquito vector Aedes aegypti. This botanical-based formulation has several advantages, including being inexpensive, environmentally friendly, free of negative side effects, effective, and a target-specific green mosquito repellent.

No. of Pages : 9 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :08/01/2024

(21) Application No.202441001285 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYNERGISTIC FORMULATION OF BOTANICAL PESTICIDE

(51) International classification :A01N0065000000, C12N0015820000, A61K0036480000, A01N0065420000, A61P0035000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

Environment-friendly insecticides derived from plants are increasingly recognized as an option that can serve as an alternative to synthetic chemical insecticides. It has been discovered that the leaves of Tephrosia purpurea, Ricinus communis seed powder, and Calotropis gigantea leaf components-based formulations can be used to formulate botanically derived pesticides that are more effective against Tuta absoluta insect pests. This invention reveals the composition of botanical components that showed high insecticidal activity against larvae of the Tuta absolutainsect pest. This botanical-based formulation has several advantages, such as being cheaper, ecofriendly, effective, and a target-specific green pesticide

No. of Pages : 8 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001286 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : LOW-COST INSECTICIDE

(51) International classification :A61K0036480000, A01N0065000000, A61K0031704800, A01N0063500000, A01N0031020000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

The agriculture and medical insect pests caused significant economic losses and human health issues. Currently, the farmer uses a large quantity of various synthetic chemical insecticides. The repeated use of the same or different chemical pesticides had a number of negative effects on human health as well as our green environments. Plant-derived insecticides are increasingly being recognized as a viable alternative to synthetic chemical insecticides. In this invention, we have formulated different botanical components, such as Abrus precatorius, seed powder of Abrus precatorius, and seed powder of Cascabela thevetia, which have high insect larvicidal activity against larvae of Galleria mellonella. These current botanical formulations showed high insect larvicidal activity against larvae of Galleria mellonella, which showed 100% mortality rates using 800 ppm concentrations at 24-hour post-treatments. Compared to individual components, the combined botanical formulations showed more insecticidal effects against larvae of Galleria mellonella at concentrations of 800 ppm. This botanical-based formulation has several advantages, including being inexpensive, environmentally friendly, free of negative side effects, effective, and a target-specific green mosquito repellent.

No. of Pages : 9 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001288 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : PLANT BASED-LOW COST LARVICIDE

(51) International classification :A01N0065000000, A01N0063500000, A01N0037460000, C11B0001100000, A01N0065380000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

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(57) Abstract :

Insect larvae can cause significant crop damage, resulting in economic losses and decreased food production. Here are some quick notes on how insect larvae harm agricultural crops. Chemical larvicides are no longer effective, so researchers are focusing on plant-based insecticides, which are becoming more widely recognized as a viable alternative to chemical insecticides. Nicotiana tabacum leaves, Azadirachta indica seed powder, and Annona squamosa leaves were extracted with distilled water, and the formulations were found to be very effective against Helicoverpa armigera agricultural insect pest larvae. This botanical formulation is an effective larvicide that can be used against Helicoverpa armigera larvae. This botanically based formulation is extremely effective against Helicoverpa armigera insect larvae.

No. of Pages : 8 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :08/01/2024

(21) Application No.202441001311 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SYSTEM AND METHOD FOR WASTE FOOD SHREDDER FERTILIZER MAKING MACHINE

(51) International classification :C05G0003800000, C05G0003000000, C05F0007000000, C05F0009020000, C05F0003000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The Waste Food to Fertilizer Making Machine's principal goal is to address the dual challenges of organic waste management and decreased soil fertility.. The machine not only deueases the strain on landfills and . waste disposal facilities by transforming waste food into nutrient-rich fertilizers, but it also provides an etc-friendly alternative to chemical fertilizers. The resulting organic fertilizer is rich in critica} nutrients, microbes) and organic matter, improving soil structure, nutrient retention, and crop yield overall.The Waste Food to Eertilizet Making Machine has sevezaL advantages, including its modular design, ease of operation, and low energy use.Furthermore, by completing the loop on organic waste utilization and minimizing dependency on non-renewable resources, the machine promotes circular economy concepts Finally, the Waste Food to Fertilizer Making Machine is a possible answer to the escalating waste food disposal and agricultural sustainability challenges. The machine offers a realistic path towards a more circutar and regenerative approach to waste management and agricultural practices by utilizing the potential of discarded food to make nutrient-rich organic fertilizers

No. of Pages : 11 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001313 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : IOT BASED SMART RAIN SENSING SHELTER

(51) International classification :G06F0008610000, G06Q0050100000, H04L0012280000, D06F0034280000, G01N0021770000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

In a busy schedule, people do not have enough time for household management and the weather ' can change. To handle this problem, we are dealing with IOT based Sensing system and the Microcontroller PIC 1615877 to install all program that will give instructions to conduct this system prbperly. Changing of climatic condition is quite natural but with the utilization of sensors we can predict it accurately. It will automatically retrieve-out thé clothes when it is the sunny day and oppositely retrieve-in the clothes when itvis a rainy day. This paJ't needs DC motor to convert electrical power into mechanical power for retrieving in and out all the clothes. Temperature sensors can measure temperatilre and day condition whether it is sunny or rainy more accurately. LDR (Light Dependent Resistor) sensors will be used to detect light. Rain detector sense when it begins to rain outside by detecting rain water from moisture impedance sensor locate at the rod. The dry-time of the clothe; will be setup using rotary knob switch and it will automatically retrieve-in the clothes using DC motor when the dried-time is finished. It will be displaying the day condition= temperature and dry-timer using LCD (Liquid Crystal Dispiay) or indicator light such as LED (Light Emitting Diode). This kind of sensing system is also useful for street vendors those who hangout clothes in the outer area

No. of Pages : 13 No. of Claims : 4

(54) Title of the invention : DOMESTIC WASTE WATER TREATMENT USING NATURAL ADSORPTION TECHNIQUE IN ZERO ENERGY BUILDING

(51) International classification :A61K0036810000, C02F0001280000, C02F0101200000, C02F0001520000, B01J0020280000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)P.S.R. Engineering College Address of Applicant :P.S.R. Engineering College, Sevalpatti Post, Vembakkottai Taluk, Virudhunagar District, Tamilnadu-626140, India ----- 2)S.Karthika 3)Dr.M. ShahuI Hameed 4)Mohamed Yasin Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)S.Karthika Address of Applicant :Assistant Professor, Civil Engineering, P.S.R. Engineering College, Sevalpatti Post, Vembakkottai Taluk, Virudhunagar District, Tamilnadu-626140, India ----- -- 2)Dr.M. ShahuI Hameed Address of Applicant :Professor, Civil Engineering, P.S.R. Engineering College, Sevalpatti Post, Vembakkottai Taluk, Virudhunagar District, Tamilnadu-626140, India ----- -- 3)Mohamed Yasin Address of Applicant :UG Student, Civil Engineering, P.S.R. Engineering College, Sevalpatti Post, Vembakkottai Taluk, Virudhunagar District, Tamilnadu-626140, India ----- --

(57) Abstract :

Domestic waste water collected from the house near Rajapalayam which is not under 'be condition of treatment before disposal so we. were choosing the. Domesxic waste waste water as a reference for our studies. The domestic waste water are polluted it contains Salt Concentration and organic matters but heavy metals are not present in it.For the. dexterminatiem of salts, we~ axe. c'hsosing' bate-b ssudies for Skw smdies. Because. Rs advantages it is suitable. for the determination of adsorbate. (calciumfin the. domestic waste water. Adsorption process was chosen for the reducing of salt concentration (calcium) in the studies the clitoria tematea and datura seeds is a biodegradable and nontoxic material which is used. Initial and final concentrations are salts determined. Then clitoria tematea and datura seeds shows reduce efficiency for the treatment process of domestic waste water in the economical way. From the final characteristics of domestic was\$e water, the resak shows 521}: cancentrafiion (whim) of domestic wastewater get reduced due to the applying clitoria tematea and datum seeds as an adsorbent.

No. of Pages : 10 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001315 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : IOT ENABLED WATER SUPPLY MANAGEMENT SYSTEM FOR ROW HOUSES

(51) International classification :A01K0005020000, H04Q0009000000, A01G0022220000, A61B0005020500, H03F0003190000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

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(57) Abstract :

The invention relates to an IOT enabled automatic row houses bore well water supply management system comprising a water compressor motor, a temperature controller for motor health monitoring, a level sensor to know the water level of the tank, a leakage sensor with pressure sensor for pipe leakage monitoring. The present invention also contains an Arduino Mega controller for automatic operation based on the sensor data and also a display in mobile through mobile application software. Thereafter, the Arduino Mega controller sends an output signal based on the predefined priority to turn on the motor only if all the conditions such as no leakage in the pipe line, the water level of the tank and also the motor health is in good condition. During the peak hours the priority order will set based on the First in First Service (FIFS). The present invention ensures the electrical energy saving by providing a relay to turn on the motor by their own water tank and individual electrical supply line instead of common line. Thereby, the electrical energy and water are saved by proper water management system.

No. of Pages : 9 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001316 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SYSTEM AND METHOD FOR THE DEVELOPMENT OF AGRIBOT FOR AUTOMATION IN AGRICULTURE

(51) International classification :A01G0022000000, A01B0049060000, A01G0013020000, G06K0009620000, A01C0007080000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention represents a groundbreaking solution to address modern agricultural challenges. This autonomous four-wheel agricultural robot, referred to as the AgriBot, integrates a range of specialized units, including ploughing, seeding, weeding, irrigation, crop protection, and leaf disease identification and action. The AgriBot's primary unit offers precise control over ploughing depth, seed distribution, and weed removal, enhancing agricultural efficiency. The irrigation unit, intricately synchronized with an IoT system, ensures optimal soil moisture levels, promoting efficient watering. The crop protection module employs IoT and AI technologies to detect intruders and deter potential threats in real time. Furthermore, the leaf disease detection and action unit utilizes deep learning for the precise identification of crop diseases, facilitating targeted treatment to minimize pesticide usage. The invention not only streamlines various agricultural operations but also enhances resource efficiency, crop health and agricultural productivity. The AgriBot promises to revolutionize precision farming and sustainable agriculture practices, making it a pivotal tool for modern farmers.

No. of Pages : 12 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :08/01/2024

(21) Application No.202441001318 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SMART WEARABLE MULTIFUNCTIONAL FALL DETECTION DEVICE WITH HEALTH TRACKING AND SMART HOME INTEGRATION

(51) International classification	:A61B0005000000, G08B0021040000, A61B0005024000, A61B0005110000, A61B0005020500	(71)Name of Applicant : 1)P.S.R. Engineering College Address of Applicant :P.S.R. Engineering College, Sevalpatti Post, Vembakkottai Taluk, Virudhunagar District, Tamilnadu-626140, India ----- 2)Dr.P.Marichamy 3)Dr.R.Meena Prakash 4)S.Jasmine Name of Applicant : NA Address of Applicant : NA
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Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The present invention is a comprehensive Elderly monitoring device designed to enhance the health, safety, and overall well-being of senior citizens. This wearable device comprises several innovative modules. The Fall Detection Module enhances safety through the integration of an accelerometer and heart rate sensor, ensuring accurate fall detection. The Temperature Monitoring Module provides continuous temperature monitoring, promoting health awareness. Real-time 'stress level' assessments are made possible by the Stress Monitoring Module, featuring dedicated stress sensors. The Smart Home Integration Module enables voice-activated control and relay functionality for smart home devices. A Medication Reminder Module offers user-friendly medication schedule input and management. The Power Management Module ensures uninterrupted operation, even during battery replacement or recharging, through a power backup mechanism. A User Interface & Alerts Module and Cloud Connectivity Module enhance user interaction and data sharing. With its comprehensive features, this wearable device empowers users with safety support, health insights, and smart home convenience.

No. of Pages : 18 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :08/01/2024

(21) Application No.202441001319 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : DEVELOPMENT OF BIOCOMPOSITE FILMS FOR FOOD PACKING

(51) International classification :A61K0036752000, C08J0005180000, B65D0065460000, C08L0029040000, C09J0011040000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Biocomposite films have emerged as interesting alternatives in the search for sustainable and ecologically friendly packaging materials. Our study investigates the fabrication and characterization of biocomposite films developed from a blend of corn starch, polyvinyl alcohol and orange peel extract as an innovative approach to biodegradable packaging materials. The formulation and optimization of the biocomposite films were carried out to achieve desirable mechanical, barrier, and biodegradable properties. Various analytical techniques were employed to assess the physical, mechanical, and barrier properties of the films, including tensile strength, thickness, elongation (%), water solubility, and biodegradability. Biocomposite films were characterized by optical analysis, FT-IR and SEM. The packaging efficiency of biocomposite films were investigated by wrapping the tomatoes with biocomposite films. The antimicrobial activity was done by agar well diffusion method. The results demonstrated that with the increasing concentration of orange peel extract, prepared films thickness is slightly increased. Elongation at break of corn starch - polyvinyl alcohol films was also enhanced with orange peel extract concentration. The FT-IR studies revealed the formation of a strong interaction between the orange peel extract and polymer matrix. Blending With orange peel extract led to an improvement in the UV-light barrier properties of the corn starch - polyvinyl alcohol films. The addition of orange peel extract to corn starch - polyvinyl alcohol films remarkably increased the antimicrobial activity. Finally, the prepared corn starch - polyvinyl alcohol — orange peel extract biocomposite films concluded as a capable material for developing active biodegradable packaging material due its proven soil degradability, water solubility and packaging efficiency.

No. of Pages : 12 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :08/01/2024

(21) Application No.202441001320 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD FOR INTELLIGENT REFRIGERATION AND FOOD MANAGEMENT

(51) International classification :G06Q0010080000, G06Q0030060000, F25D0017040000, F25D0029000000, A61L0002100000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :

The present invention is a solution that combines cutting-edge technology- and innovative design to revolutionize food preservation and. management in refrigeration. This intelligent system introduces a series of interconnected modules, including a Freshness Indicator Module, Odor Sensing Module, Inventory Management Module, UV-C Sterilization Module, and Meal Planning and Shopping Lists Module, to provide users with enhanced food freshness monitoring, refrigerator hygiene maintenance, and convenient meal planning; The Freshness Indicator Module employs advanced sensors and machine learning to alert users when food items are on the brink of spoilage. The Odor Sensing Module ensures a clean refrigerator environment by promptly detecting unusual odors. The Inventory Management Module streamlines food tracking and minimizes wastage. The UV-C Sterilization Module enhances food safety, while the Meal Planning and Shopping Lists-Module optimizes ingredient use and simplifies grocery shopping. Together, these modules create a holistic system that not only extends the shelf life of food but also improves the overall user experience in managing food within a refrigerator.

No. of Pages : 9 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001321 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : TWO WHEELER ACCIDENT ALERT SYSTEM WITHSMART TECHNOLOGY

(51) International classification :G08B0025010000, B60R0021010000, H04W0004020000, G01S0019170000, G08B0025000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The Two—Wheeler Accident Alert System is an innovative and life-saving technology designed to enhance the safety of motorcycle and scooter riders. This system addresses the growing concern of two-wheeler accidents by leveraging cutting-edge sensor and communication technologies. At its core, the system employs a network of sensors integrated into the two-wheeler, which constantly monitor various parameters, including speed, acceleration, and tilt. In the event of an abrupt change in these parameters, the system immediately recognizes a potential accident scenario. This data is then processed by an on-board computer; which employs advanced algorithms to determine the severity of the situation. When a critical accident risk is detected, the system automatically triggers an alert mechanism. This alert can take various forms, such as sending an emergency signal to a dedicated mobile app installed on the rider's smart phone, notifying emergency services with the precise GPS location of the accident, and even activating the vehicle's built-in safety features, like airbags and automatic collision detection. The Two-Wheeler Accident Alert System has the potential to significantly reduce response times in the event of an accident, thus increasing the chances of survival and minimizing the severity of injuries. This system not only enhances the safety of two-wheeler riders but also provides peace of mind to their families, making it a crucial innovation in the realm of road safety.

No. of Pages : 11 No. of Claims : 7

(54) Title of the invention : AN EFFICIENT PRIVACY PRESERVING AND SEARCHING SYSTEM AND METHOD FOR DATA SECURITY IN CLOUD ENVIRONMENT

(51) International classification :G06F0021620000, G06F0016310000, G06Q0030060000, G06F0016140000, G06F0016380000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
A computer implemented method for storing files on an encrypted cloud storage comprising the steps of using the operators for search query with multiple keywords. The private data search further comprises by using the encryption methods by data owner for the privacy of data. The private data search method also includes encrypting data preprocessed for efficient search like indexing, keyword extraction. The private data search method also includes using greedy dfs algorithm traverses the encrypted data structure based on keyword relevance. The private data search method also includes adding documents retrieved by the dfs search are ranked based on relevance score. The private data search method also includes depending on the intended use case, relevant documents might be partially or fully decrypted before returning to the user. The private data search method also includes using ranked list of relevant documents returned to the user with optional partial/full decryption.

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001324 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : ECO FRIENDLY CORRUGATED LIGHT WEIGHT FIBER REINFORCED ROOF PANEL USING PERLITE

(51) International classification :E04C0005070000, C09D0007610000, C04B0016060000, C08L0003020000, C04B0111340000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)P.S.R. Engineering College Address of Applicant :P.S.R. Engineering College, Sevalpatti Post, Vembakkottai Taluk, Virudhunagar District, Tamilnadu-626140, India ----- 2)L. Arun Raja 3)Dr.M. Shahul Hameed 4)S. Karthika Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)L. Arun Raja Address of Applicant :Assistant Professor, Civil Engineering, P.S.R. Engineering College, Sevalpatti Post, Vembakkottai Taluk, Virudhunagar District, Tamilnadu-626140, India ----- -- 2)Dr.M. Shahul Hameed Address of Applicant :Professor, Civil Engineering, P.S.R. Engineering College, Sevalpatti Post, Vembakkottai Taluk, Virudhunagar District, Tamilnadu-626140, India ----- -- 3)S. Karthika Address of Applicant :Assistant Professor, Civil Engineering, P.S.R. Engineering College, Sevalpatti Post, Vembakkottai Taluk, Virudhunagar District, Tamilnadu-626140, India. ----- ---

(57) Abstract :

Most of the fibre reinforced corrugated roofing sheets have damaged due to tearing out at its corrugations by high wind action and collision loads. The strength of these corrugations can be improved with fibers, as the fibres are the crack arrestors and improve tensile strength. Polypropylene fibres are used as secondary reinforcement in cement matrices for producing corrugated roofing sheets has been investigated and reported. The fibre reinforced corrugated roofing sheets were cast manually and the strength of the corrugations of the above composite sheets in terms of splitting due '0 flexure test, were experimentally studied. It is found that the strength towards splitting of corrugations of the polypropylene fibre corrugated roofing sheets due to bending strength was improved as compared to the corrugated sheets without fibres. in the production of corrugated roofing sheets. Mortar cubes are cast with 1% of polypropylene fibre total volume of cement and sand replaced by perlite 20% the compression test results are obtained and compared with the conventional mix.

No. of Pages : 9 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001326 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A DEVICE FOR RECYCLING GYPSUM PRODUCTS

(51) International classification :G06Q0010000000, G06Q0010060000, C01F0011460000, C04B0028140000, A61P0003000000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

A DEVICE FOR RECYCLING GYPSUM PRODUCTS This innovative machine and process enables to recycle the used Gypsum in various products used in dental / medical/ craft / industrial fields. This innovative device enables the recycling to be conducted at source with very less or minimal infrastructure, space and cost and it is highly user friendly. Highly innovative technology and process is used in the novel machine to recycle the gypsum and enabling it to be reused. This innovative machine and novel process not only reduces accumulation of gypsum waste but also promotes sustainability within the waste management industry by minimizing the need for virgin gypsum resources and lowering the environmental impact associated with gypsum product disposal.

No. of Pages : 20 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001339 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : COCKLE SHELL POWDER REINFORCED MAGNESIUM-BASED ALLOY COMPOSITE AND A METHOD FOR PRODUCTION THEREOF

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(51) International classification	:C22C23/00, C22F1/06	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

COCKLE SHELL POWDER REINFORCED MAGNESIUM-BASED ALLOY COMPOSITE AND A METHOD FOR PRODUCTION THEREOF The present invention provides a composite of AZ91D Mg alloy reinforced with 2% by weight cockle shell powder (CSP). Said composite is prepared using CSP having size of size 53 µm. The present invention also provides a method for production of a composite of AZ91D Mg alloy reinforced with 2% CSP.

No. of Pages : 15 No. of Claims : 8

(54) Title of the invention : UNIQUE PRIMERS FOR THE DETECTION OF TILAPIA LAKE VIRUS USING REVERSE TRANSCRIPTASE POLYMERASE SPIRAL REACTION ASSAY

(51) International classification :C12Q0001700000, C12Q0001684400, C12Q0001682700, G16B0005000000, C12Q0001681600

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Due to the simplicity of operation, the reverse transcriptase polymerase reaction (RT-PSR) has been used widely adapted for the detection of RNA virus both in terrestrial and aquatic animals. The specific PSR primers were designed by targeting the specific regions present in the segment 3 of tilapia lake virus (TiLV) followed by in-silico screening of the primers using bioinformatic tools. The RT-PSR assay was were optimized for time and temperature. Further, the assay was optimized using hydroxy naphthol blue dye. Hence, the results can be analyzed using the naked eye making it less time consuming and less labor intensive. The specificity of the designed primers was checked by using the template RNA of other related RNA viruses and was found only specific to TiLV. The assay reaction can be operated in a simple dry bath or water bath without any sophisticated laboratory set-up, making it simple and cost effective when compared to already available detection techniques.

No. of Pages : 16 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :08/01/2024

(21) Application No.202441001350 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : LORA BASED INDUSTRIAL ENVIRONMENT MONITORING SYSTEM

(51) International classification :G01N0033000000, H04W0004700000, F24F0110700000,
G01W0001100000, H04Q0009000000
(86) International Application :NA
No :NA
Filing Date :NA
(87) International Publication : NA
No :NA
(61) Patent of Addition to :NA
Application Number :NA
Filing Date :NA
(62) Divisional to Application :NA
Number :NA
Filing Date :NA

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(57) Abstract :

Global climate change refers to the typical long-term changes across the Globe. The crucial first stage in reducing environmental changes and effects is identifying and monitoring climatic elements, air quality, moisture, gas or alcohol, water pH levels, and water flows in certain distant places. Estub Sizing an industrial environment observing system with LoRa communication that receives and transmits data simultaneously is the primary goal of this work. Here, we create a monitoring system utilizing sensors such as the DHT22: which measures temperature and humidity, and the MQ-2 Gas sensor, which detects the presence of gases or alcohol in the air. The pH sensor determines the pH of the water, and the stream detector tracks the flow of water. The LoRa gateway uses a low data rate and power consumption to send real-time data from the above sensors to the cloud. The user can utilize 'the mentioned mobile applications to check all the information. This study shows how an environment monitoring system can gather pmcise data from sensors with long-range coverage and minimal power usage.

No. of Pages : 19 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001363 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : METHOD AND SYSTEM FOR SELF-CORRECTING KEY IN QUANTUM KEY GENERATION

(51) International classification :H04L0009080000, H04B0010700000, H04L0001000000, A61B0005110000, H04M0001600000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

METHOD AND SYSTEM FOR SELF-CORRECTING KEY IN QUANTUM KEY GENERATION ABSTRACT A method for self-correcting key generation for a decoy and signal pulses based quantum key distribution (QKD) protocol. The method comprises emitting laser light; modulating intensity of the laser light to generate the decoy pulses having a first mean photon number (MPN) and the signal pulses having a second MPN greater than the first MPN; modulating phase of the signal and decoy pulses with key-generation state information and self-correction state information correlated with the key-generation state information, respectively, for being transmitted; detecting a phase and a time-stamp data of the modulated decoy and signal pulses upon being received; determining an error count using the phase and time-stamp data of at least one of the received decoy or signal pulses; and generating a self-corrected key using the self-correction state information when the error count is within a pre-determined threshold. FIG. 1

No. of Pages : 36 No. of Claims : 10

(54) Title of the invention : A SYSTEM AND METHOD FOR SPEECH-DRIVEN EMAIL ACCESSIBILITY FOR A VISUALLY IMPAIRED INDIVIDUAL

(51) International classification :G09B0021000000, G06Q0010100000, G10L0015260000, H04L0051000000, G10L0021020800 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)SRM INSTITUTE OF SCIENCE AND TECHNOLOGY Address of Applicant :Kattankulathur, Chennai-603203, Tamil Nadu, India Chennai ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)GOVINDASAMY KANNAN, SANDHIA Address of Applicant :SRMIST, Kattankulathur, Chennai-603203, Tamil Nadu, India Chennai ----- 2)JAYARAM, RAMAPRABHA Address of Applicant :SRMIST, Kattankulathur, Chennai-603203, Tamil Nadu, India Chennai ----- 3)ARUN ARCHAN RAUTARAY Address of Applicant :PTN Pace Adarsa Apartments, Selaiyur, Chennai-603203, Tamil Nadu, India Chennai ----- 4)KUNWAR DANISH Address of Applicant :Malligai Hostel, SRMIST, Kattankulathur, Chennai-603203, Tamil Nadu, India Chennai -----

(57) Abstract :
ABSTRACT A SYSTEM AND METHOD FOR SPEECH-DRIVEN EMAIL ACCESSIBILITY FOR A VISUALLY IMPAIRED INDIVIDUAL The present disclosure discloses a system(100) and a method(200) for speech-driven email accessibility for a visually impaired individual. The system(100) comprises an inputting module(106) to receive login credentials; a pre-processing module(104) receives voice commands and process standardized voice commands;a pre-trainable voice recognition module(106) verify auditory feedback to generate cleaned voice commands; a converter module(108) to receive cleaned voice commands and convert into a text data;a loading module(110) load said text data and upload into an email;an extractor module(112) text data and provides an email address recipient's information, subject line, message body, attachment, and options available with email composer ;an approval module(114) to approve composer details containing at least one recipient email address and providing details for CC in additional recipients;an alerting module(116) alert recipient composer details and generate an alert command;a feedback module(118) provide said auditory feedback and generate an composed mail ; a forward module(120) forward said composed mail.

No. of Pages : 32 No. of Claims : 10

(54) Title of the invention : A SYSTEM AND A METHOD FOR PUBLISHING ANONYMIZED TABLES IN DATA PUBLISHING

(51) International classification :G06F0021620000, G06F0016280000, H04L0045000000, G06Q0030040000, H04L0047122000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)SRM INSTITUTE OF SCIENCE AND TECHNOLOGY Address of Applicant :Kattankulathur, Chennai-603203, Tamil Nadu, India Chennai ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)JAYAPRADHA JAYARAM Address of Applicant :SRMIST, Kattankulathur, Chennai-603203, Tamil Nadu, India Chennai ----- 2)MANICKAM PRAKASH Address of Applicant :SRMIST, Kattankulathur, Chennai-603203, Tamil Nadu, India Chennai ----- 3)MUTHAIAH UMA DEVI Address of Applicant :SRMIST, Kattankulathur, Chennai-603203, Tamil Nadu, India Chennai -----

(57) Abstract :
ABSTRACT A SYSTEM AND A METHOD FOR PUBLISHING ANONYMIZED TABLES IN DATA PUBLISHING The present disclosure discloses a system (100) for publishing anonymized tables in data publishing and a method(200) thereof. The system(100) comprises a routing controller(102) implementing a routing platform by means of Internet of Things (IoT); a correlation module(106) to determine attributes and categorize attributes as quasi-identifiers with semi-sensitive and sensitive attributes while maintaining relationships; a QISS categorial and numerical module(108) to receive said categorized attributes containing quasi-identifiers and identify categorical attributes and numerical attributes to generate a first table containing categorical attributes and numerical attributes; a sensitive attribute table generation module(110) to receive said categorized attributes containing sensitive attributes and identify personally identifiable information(PII) to identify schema for said table without exposing individual identities, and extract sensitive data to populate said table with schema to generate a second table containing schema; a merging module(112) to receive said first table and said second table to generate publishing anonymized table.

No. of Pages : 29 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :08/01/2024

(21) Application No.202441001447 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : DESIGN OF MEASURING FOETAL PHONO-CARDIOGRAPH OF PREGNANT WOMEN USING DIGITAL STETHOSCOPE

(51) International classification :A61B5/024, A61B5/344, A61B7/04, H04R1/00 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)PSNA COLLEGE OF ENGINEERING AND TECHNOLOGY Address of Applicant :PSNA COLLEGE OF ENGINEERING AND TECHNOLOGY, KOTHANDARAMAN NAGAR, DINDIGUL, TAMILNADU-624622. ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)VE. Jayanthi Address of Applicant :Professor and Head,Department of Biomedical Engineering, PSNA College of Engineering and Technology,Kothandaraman Nagar,Dindigul, Tamilnadu-624622 - ----- 2)P.Sutha Address of Applicant :Assistant Professor,Department of Biomedical Engineering, PSNA College of Engineering and Technology,Kothandaraman Nagar,Dindigul, Tamilnadu-624622 - ----- 3)J.Vinitha Address of Applicant :B.E. Student,Department of Biomedical Engineering, PSNA College of Engineering and Technology,Kothandaraman Nagar,Dindigul, Tamilnadu-624622 - ----- 4)R.Logeswari Address of Applicant :B.E. Student,Department of Biomedical Engineering, PSNA College of Engineering and Technology,Kothandaraman Nagar,Dindigul, Tamilnadu-624622 - ----- 5)K.Karthika Address of Applicant :B.E. Student,Department of Biomedical Engineering, PSNA College of Engineering and Technology,Kothandaraman Nagar,Dindigul, Tamilnadu-624622 - -----

(57) Abstract :

Foetal heart rate (Ft-DU) is a potential indicator of stress on unborn in the womb of mother. In hospital, ultrasound based Doppler equipment is used for performing , the FHR surveillance. The stethoscope is used to hear the heart sound and murmur in 16w amplitude and frequency, However, a recent study says that frequent exposure of ultrasound radiation to foetal is not recommended for the well being of foetus. To avoid the exposure of ultrasound radiation, we record and evaluate the foetal heart sound' from stethoscope. The proposed work is focused on how to record and extract the foetal heart Vsound by using digital stethoscope. The hardware is designed to record the foetal heart sound from the pregnant women and alerts the physician about the abnormalities. To reduce the EMG signal of foetal, amniotic fluid noise, motion artifacts the extracted heart sound are processed in MATLAB-I3, the low pass filter is designed to cancel it. Six pregnant women real time clinical data are used for evaluating the normal and abnormalities of the foetal is measured by calculating the amplitude and time of S1, S2 wave of foetal heart sound.

No. of Pages : 30 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001459 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SYSTEM AND METHOD FOR CONTROLLING INTERNET OF THINGS (IOT) DEVICES

(51) International classification :H04L0012280000, H04W0004700000, H04L0067120000, H04W0004020000, G06Q0030020000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Embodiments of the present disclosure relate to a system (102) and method (600) for controlling one or more IoT devices, including, but not limited to, household appliances, within range by enabling users to issue control commands via an intuitive AR interface for effective management of one or more IoT devices including household appliances. The system (102) includes a processor (104) coupled to a memory (106) that stores processor-executable instructions. The processor (104) is configured to establish a connection with the one or more IoT devices within range and transmit commands to the IoT devices based on the established connection. Furthermore, the processor (104) is configured to execute actions based on the commands received to control the IoT devices within range and receive feedback from the IoT devices based on the executed actions.

No. of Pages : 26 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001467 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SHIM PLATE PROFILE FOR A FLUID DEPOSITION SYSTEM

(51) International classification :B05C0005020000, F16D0065097000, B23C0009000000, A61F0013150000, H05K0003460000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT A SHIM PLATE PROFILE FOR A FLUID DEPOSITION SYSTEM Examples for a shim plate are described, wherein the shim plate may be disposed between an upper and a lower portion of a fluid deposition system onto a substrate. The shim plate comprises an inner edge slot positioned to face towards a discharge port of the fluid deposition system to guide a fluid composition to the substrate. In one example, the inner edge slot comprises of a longitudinal edge having a first end and a second end. The inner edge slot further comprises a first transverse edge along the first end and a second transverse edge along the second end. The first transverse edge and the second transverse edge have a concave profile concaved at a plane of the first transverse edge and the second transverse edge, respectively at a pre-specified radius of curvature.

No. of Pages : 30 No. of Claims : 15

(54) Title of the invention : A MACHINE LEARNING-BASED HUMAN RESOURCE-BASED MANAGEMENT PROCESSING SYSTEM FOR DETECTING PERSONNEL STRESS

(51) International classification :A61B0005160000, G06N0020000000, G06Q0010060000, G06N0003080000, A61M0021000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Dr. Satish R Address of Applicant :Associate Professor, Department of MBA, St. Joseph's Institute of Technology, Old Mamallapuram Road, Chennai Pin - 600119 District: Chengalpattu State: Tamilnadu Country: India ----- 2)Dr. Aruna V 3)Dr. Angelin S Kriuba 4)Dr. Karpagham C 5)Dr. Karunakaran 6)Dr. Nalini Devi S 7)Dr. Priya Sethuraman Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Satish R Address of Applicant :Associate Professor, Department of MBA, St. Joseph's Institute of Technology, Old Mamallapuram Road, Chennai Pin - 600119 District: Chengalpattu State: Tamilnadu Country: India ----- 2)Dr. Aruna V Address of Applicant :Assistant Professor, Department of MBA, St. Joseph's Institute of Technology, Old Mamallapuram Road, Chennai Pin - 600119 District: Chengalpattu State: Tamilnadu Country: India ----- 3)Dr. Angelin S Kriuba Address of Applicant :Associate Professor, Department of MBA, St. Joseph's College of Engineering, Old Mamallapuram Road, Chennai Pin - 600119 District: Chengalpattu State: Tamilnadu Country: India ----- 4)Dr. Karpagham C Address of Applicant :Assistant Professor, Department of MBA, St. Joseph's Institute of Technology, Old Mamallapuram Road, Chennai Pin - 600119 District: Chengalpattu State: Tamilnadu Country: India ----- 5)Dr. Karunakaran Address of Applicant :Assistant Professor, Department of MBA, St. Joseph's Institute of Technology, Old Mamallapuram Road, Chennai Pin - 600119 District: Chengalpattu State: Tamilnadu Country: India ----- 6)Dr. Nalini Devi S Address of Applicant :Assistant Professor, Department of MBA, St. Joseph's Institute of Technology, Old Mamallapuram Road, Chennai Pin - 600119 District: Chengalpattu State: Tamilnadu Country: India ----- 7)Dr. Priya Sethuraman Address of Applicant :Professor, Department of MBA, St. Joseph's Institute of Technology, Old Mamallapuram Road, Chennai Pin - 600119 District: Chengalpattu State: Tamilnadu, Country: India -----

(57) Abstract :

A Machine Learning-Based Human Resource-Based Management Processing System for Detecting Personnel Stress ABSTRACT: Anxieties or situations that inevitably provoke emotions of restlessness, ire, and exasperation elicit stress. It is distinguished by the presence of apprehension or unease, which may be expressed in both cognitive and physical ways. The response of the body to environmental changes, which may be mental, physical, or emotional in nature, is one definition of stress. The physiological response of the body to attempt self-regulation is stress. Repeated episodes of heightened tension have the potential to disrupt the physical and mental equilibrium of an individual. As a result, this may have a negative impact on an individual's professional productivity and, with continued exposure, elevate the risk of physiological ailments such as hypertension and psychological disorders like anxiety disorder. There is an increasing concern among individuals of all ages regarding the potential consequences of psychological duress. The development of a dependable and cost-effective acute stress detection system has the capacity to empower individuals to efficiently oversee and control their stress levels, thereby mitigating the enduring adverse consequences of stress. The present endeavour entails the integration of sophisticated stress detection technology. There is presently a deficiency in the consideration of real-time tracking and personalised treatment. The utilisation of a survey is employed to determine the extent of psychological distress experienced by employees in order to propose effective approaches for reducing stress. By engaging with this article, you will gain insights into strategies for reducing tension and creating a pleasant and serene work environment, thereby empowering you to optimise employee productivity. These include healthcare, machine learning, stress prediction, tagging, and boosting. A framework for supervised learning is utilised to construct a model that classifies employees into stress and non-stress categories. The characteristics extracted from the data sources form the basis of this classification.

No. of Pages : 11 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001481 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : GHOSTS OF MAGICAL REALIST FICTION CHALLENGE IN DE-CENTRING THE ISMS: A COMPARATIVE READING OF SPECTERS IN HINDI SCRIPT DUVIDHA AND PAHELI

(51) International classification :A63J 21/00 , G06Q 50/00, G06Q 99/00		(71)Name of Applicant :
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(57) Abstract :

Ghosts of Magical Realist fiction challenge in de-centring the isms: A comparative reading of specters in Hindi script Duvidha and Paheli ABSTRACT: The essay focuses on the literary ghosts to explore the idea about their embodiment in the select texts and its purpose of existence to foresee beyond the fantasy elements. The argument focuses that magical realism is truly postmodern in de-centring the conventional ideology in perceiving the world. This illustration opposes conventional western ideologies regarding the understanding of world and theology, instead it exposes plurality and differences. The case study explores that eventually the presence of ghosts challenges the epistemological belief of single unified truth and opines the scope for possibilities. Subsequently, it demonstrates an analogy between the two select ghosts in terms of similarities and dissimilarities as per societal structure. Moreover, the investigation also tells a great deal about how and why the select ghosts perform differently and ultimately it leads into blurring of the boundaries. Key Words: magical realism, postmodernism, de-centre, possibilities, open-ended, plurality

No. of Pages : 15 No. of Claims : 5

(54) Title of the invention : FROM HERB TO HEALER: UNVEILING THE PHYTOCONSTITUENTS AND RADICAL SCAVENGING ACTIVITY OF LEMONGRASS

(51) International classification :A61K36/899, A61K8/97, A61K8/9794, B01D11/00, B01D11/02, C07H1/08, G01N30/02, G01N30/06 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr. Sayeeda Sultana Address of Applicant :Professor and Head Department of Chemistry St. Peter's Institute of Higher Education and Research,Avadi, Chennai 600 054 Tamil Nadu, India ----- ----- 2)Mr. C. Sakthivel 3)Dr. M. Priya 4)Dr. Gokul Raghavendra Srinivasan Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Sayeeda Sultana Address of Applicant :Professor and Head Department of Chemistry St. Peter's Institute of Higher Education and Research,Avadi, Chennai 600 054 Tamil Nadu, India ----- ----- 2)Mr. C. Sakthivel Address of Applicant :Assistant Professor Department of Chemistry St. Peter's Institute of Higher Education and Research,Avadi, Chennai 600 054 Tamil Nadu, India ----- ----- 3)Dr. M. Priya Address of Applicant :Assistant Professor School of Basic Science, Department of Chemistry Vels Institute of Science, Technology and Advanced Studies, Pallavaram, Chennai-600 117,India ----- ----- 4)Dr. Gokul Raghavendra Srinivasan Address of Applicant :Research Scientist and Technical Analyst Department of Research and Development Steamax Envirocare Private Limited, Vikaspuri Delhi-110018, India ----- ----- -

(57) Abstract :

ABSTRACT From Herb to Healer: Unveiling the Phytoconstituents and Radical Scavenging Activity of Lemongrass Lemongrass (*Cymbopogon citratus*) is a widely used culinary and medicinal herb with a long history of traditional use. Numerous studies have demonstrated its antioxidant, anti-inflammatory, and antimicrobial properties. However, the extraction, identification, and evaluation of the specific phytoconstituents responsible for these biological activities remain incompletely understood. The present invention addresses this gap by providing a comprehensive method for extracting, identifying, estimating, and evaluating the radical scavenging activity of phytoconstituents present in lemongrass (*Cymbopogon citratus*). The method involves Soxhlet extraction of lemongrass powder using water, followed by column chromatography to separate the phytoconstituents. The purified fractions are then analyzed using Thin Layer Chromatography (TLC) to identify the specific phytoconstituents. The presence of alkaloids, flavonoids, tannins, and phenolics is confirmed using standard chemical tests. Colorimetric methods are employed to estimate the concentrations of the identified phytoconstituents. The radical scavenging activity of the extracted phytoconstituents is assessed using the DPPH (2,2-diphenyl-1-picrylhydrazyl) assay. The ability of the extract to scavenge DPPH radicals is measured and compared to a standard antioxidant, such as ascorbic acid.

No. of Pages : 26 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :08/01/2024

(21) Application No.202441001483 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SESBANIA GRANDIFLORA: A TREASURE TROVE OF THERAPEUTIC COMPOUNDS - ALKALOIDS, FLAVONOIDS, AND ANTIOXIDANT ACTIVITY REVEALED

(51) International classification :A61K36/48, B01D11/00, G01N30/06, G01N30/14, G01N30/34

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

ABSTRACT Sesbania Grandiflora: A Treasure Trove of Therapeutic Compounds - Alkaloids, Flavonoids, and Antioxidant Activity Revealed Plants and their different parts have shown therapeutic actions. This property has been made use of in ayurveda with the identification of active components. Similarly plants part in whole form has also been used for therapeutic action. In this project work this property has been utilized in the identification of therapeutic action of Sesbania Grandiflora (Agathikeerai) by identifying the active components using column chromatography technique various components such as alkaloids, flavanoids and nitric oxide free radical scavenging activity have been separated with the use of different combination of polar and non polar solvents. The results obtained clearly indicate the therapeutic action of Sesbania Grandiflora (Agathikeerai) due to the presence of alkaloids, flavanoids and antioxidant property. Further studies on these points have to carried out on clinical trial basis using animal experiments and with satisfactory results obtained can be extended to various medicinal use.

No. of Pages : 23 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001484 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : PREDICTIVE ANALYTICS AND MACHINE LEARNING FUSION IN IOT NETWORKS

(51) International classification :G06N0020000000, H04L0067120000, G06N0005040000, G06N0020200000, H04L0041160000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :
Abstract The invention, Predictive Analytics and Machine Learning Fusion in IoT Networks, presents a comprehensive system for the management and optimization of Internet of Things (IoT) networks. By seamlessly integrating predictive analytics and machine learning, the system analyzes real-time data from diverse IoT devices, identifies patterns, and continuously adapts to evolving network conditions. The innovation lies in the fusion of predictive analytics for immediate insights with machine learning for ongoing learning and adaptation. An Adaptive Learning Framework refines models based on real-world outcomes, ensuring accuracy in predictions. The Decision Optimization Module translates predictions into actionable recommendations for resource allocation and network optimization. The user-friendly interface offers real-time visualizations and compatibility with existing IoT platforms, emphasizing security measures for data integrity. This invention represents a paradigm shift in IoT network management, enhancing efficiency, reliability, and adaptability in dynamic environments.

No. of Pages : 16 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001486 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A TRAIN BRAKE SYSTEM RELYING ON ULTRASOUND SENSORS

(51) International classification :B60R21/013, B60T7/12, B61H13/00, G01S15/04, G01S15/93, G01S15/931
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :

The goal of this project is to create an ultrasonic sensor-based train braking system. We can prevent the train crash with the help of this initiative. This prevents the passenger's death as well. The purpose of this work is to create an electronic control system for automated train stopping via the use of an ultrasonic sensor switch. In addition to increasing safety, an Automatic Braking System will open up new markets and give existing ones a leg up on the competition. The increased security provided by an Automatic Braking System will attract more buyers and give the technology a leg up in the industry.

No. of Pages : 7 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001490 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : REAL TIME NEURO DISORDER DETECTION USING DIGITAL HEART RATE MONITOR WITH WIFI USING IOT AND AI

(51) International classification :A61B0005000000, A61P0009000000, G16H0010600000, G06Q0050220000, G06Q0010100000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The main objective is to give a viable and an effective solution to the Neurological disorder problems. The solutions are only available at the selective specialty health care centers with an expert doctor. Seldom available to the mass public. The abstract is an implementation of Health Care Conceptualization by integrating Real Time Digital Enabled Heart Rate, Sugar and Blood Oxygen level Monitor Introduced with WIFI using IOT with AI-ML implementation and Block-Chain to enable the status of SOCIAL ANXIETY. The claim is to reconcile technological innovation with economic and social challenges of healthcare society for tomorrow. Neurological disorders are frequently associated with ECG and structural cardiac changes with various clinical manifestations. A series of complex interactions exists between the nervous and cardiovascular systems. However, the effects of cardiovascular system on the nervous system have been wisely studied; our understanding of the effects of neurological disorders on the cardiovascular system has only expanded in past two decades. The solution is an implementation of both the concepts merged to present a comprehensive, cost effective, and a viable concept using WIFI technology in healthcare sectors to detect the disorder accurately and analyze time to time. Through the implementation of this concept various pathologies of the cardiovascular system can lead to wide range of alterations on neurological systems. The data is captured electronically. RF-Card is employed to have a richer approach to patient identification. The diagnostic and treatment details are captured and stored in a digital locker.

No. of Pages : 8 No. of Claims : 8

(54) Title of the invention : INTELLIGENT MOTOR AND WATER SYSTEM (IMAW)

(51) International classification	:H05K0007200000, E21B0043120000, H02P0001020000, A01G0025160000, G06Q0010000000	(71)Name of Applicant : 1)BHUKYA SWETHA Address of Applicant :C/O: BHUKYA RAM DAS, 14-2-130, BALLE PALLY, NEAR ZPSS HIGH SCHOOL, BALLE PALLY MANDAL, BALLEPALLE, KHAMMAM, TELANGANA – 507002 ballepally -----
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(62) Divisional to Application Number	:NA	
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(57) Abstract :
TITLE: INTELLIGENT MOTOR AND WATER SYSTEM (IMAW) 7. ABSTRACT The disclosed Intelligent Motor and Water System (IMAW) (100) addresses water storage challenges in both rural and urban settings. Operating as an intelligent control unit, IMAW activates motors (102) when the tank (104) level drops below 30%, ensuring efficient water storage, and automatically halts motor at 100% to prevent overflow. With adjustable thresholds for adaptability, it serves as a motor starter and supervisory controller, eliminating the need for additional starters and extends motor lifespan. Beyond immediate benefits, IMAW aligns with global goals of promoting energy and food security, reducing carbon emissions, and supporting sustainable development, protection of environment and earth etc. Offering user convenience, time savings, and affordability, with multiple protective layers, LCD screens (110), and real-time displays, IMAW stands as a highly reliable, own decision making with easy user interface, low-cost solution for water management, symbolizing innovation for a sustainable future. Figure associated with Abstract is Fig. 1

No. of Pages : 21 No. of Claims : 19

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :08/01/2024

(21) Application No.202441001494 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : DESIGNING INLAYS TO INCORPORATE PITS AND FISSURES IN TOOTH USING SUPERVISED MACHINE LEARNING

(51) International classification :G06N0003040000, G06N0003080000, A61Q0011000000, G06K0009620000, A61P0001020000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

One of the chronic oral diseases that pose a lot of threat on children if left untreated is dental caries inside pits and fissures. According to Research Study conducted by Global Burden of Disease 2019, formation of dental caries affects about 520 million children worldwide. Untreated dental caries occurring inside pits and fissures of permanent molars can lead to periapical infection, pulpitis leading to loss of tooth. Pits and Fissure caries occurring on occlusal/ buccal/ palatal surface leads to 90% of caries in permanent molars and 44% in deciduous molars in children. Proposed is a System to Design Inlays to Incorporate Pits and Fissures in tooth using Supervised Machine Learning. Mask Image from Train Dataset and Test Dataset is subject to image segmentation. Attention-Based Layer is built with k-Nearest Neighbourhood graph, Multilayer perceptron and graph attention. Pooling layers of Convolutional Neural Networks carries out Graph Maxpooling followed by Feature Fusion.

No. of Pages : 16 No. of Claims : 3

(54) Title of the invention : METHOD AND SYSTEM FOR REVOLUTIONIZING IOT DATA PROCESSING AND ANALYTICS WITH 5G ADVANCEMENTS

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	(71)Name of Applicant : 1)CMR COLLEGE OF ENGINEERING & TECHNOLOGY Address of Applicant :KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401. Hyderabad ----- -- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. L. CHANDRA SEKHAR REDDY Address of Applicant :Associate Professor Computer Science and Engineering (Data Science) CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad ----- 2)Mr. M. PARAMESHWAR Address of Applicant :Assistant Professor Computer Science and Engineering (Data Science) CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad ----- 3)Ms. R. SUHASINI Address of Applicant :Assistant Professor Computer Science and Engineering (Data Science) CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad ----- 4)Mr. V. NARASIMHA Address of Applicant :Assistant Professor Computer Science and Engineering (Data Science) CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad ----- 5)Mr. J. RANJITH Address of Applicant :Assistant Professor Computer Science and Engineering (Data Science) CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad -----

(57) Abstract :
METHOD AND SYSTEM FOR REVOLUTIONIZING IOT DATA PROCESSING AND ANALYTICS WITH 5G ADVANCEMENTS
ABSTRACT The invention presents a novel method and system for transforming IoT data processing and analytics through the integration of 5G advancements. Leveraging the capabilities of a 5G communication network, the method involves real-time reception of IoT data from diverse devices. Distributed edge computing resources perform dynamic workload optimization based on 5G network conditions, including latency, bandwidth, and signal strength. This ensures efficient and adaptive processing of data, enhancing the overall system performance. The processed data is transmitted to a central analytics server for comprehensive analysis and storage. The system also incorporates machine learning modules for algorithm adaptation and a security module for real-time threat analysis, further fortifying the robustness of the IoT ecosystem. The inventive approach facilitates unparalleled responsiveness, scalability, and security in IoT data processing, marking a significant advancement in the domain.

No. of Pages : 15 No. of Claims : 9

(54) Title of the invention : ADVANCED USER IDENTIFICATION AND AUTHORIZATION IN MIXED REALITY ENVIRONMENTS

(51) International classification :G06F0003010000, G06F0021320000, G06T0019000000, G06Q0020400000, A61B0005160000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)CMR COLLEGE OF ENGINEERING & TECHNOLOGY Address of Applicant :KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401. Hyderabad ----- -- ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Mr. K. VENKATESWARA RAO Address of Applicant :Associate Professor Computer Science and Engineering CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad ----- 2)Dr. R. VENKATESWARA REDDY Address of Applicant :Associate Professor Computer Science and Engineering CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad ----- 3)Dr. V. VENKATAIAH Address of Applicant :Associate Professor Computer Science and Engineering CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad ----- 4)Dr. E. GURU MURTHY Address of Applicant :Associate Professor Computer Science and Engineering CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad ----- 5)Dr. M. VIJAYASANTHI Address of Applicant :Associate Professor Computer Science and Engineering CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad -----

(57) Abstract :
ADVANCED USER IDENTIFICATION AND AUTHORIZATION IN MIXED REALITY ENVIRONMENTS ABSTRACT The invention introduces a sophisticated system for enhancing user interactions within mixed reality settings. Employing a sensor array, the system captures and analyzes biometric data, including facial features, voice patterns, and gestures, to uniquely identify users. The identified users are associated with dynamic authorization profiles stored in a memory system. This allows the authorization module to grant or deny access to specific mixed reality features based on the user's identification and contextual information, such as location and time. The invention promotes a multi-modal approach to user identification, integrating various biometric factors for comprehensive recognition. Furthermore, the system incorporates a secure communication protocol and hierarchical authorization levels, ensuring robust security and flexibility in managing user access within mixed reality environments.

No. of Pages : 16 No. of Claims : 9

(54) Title of the invention : INTER-BLOCKCHAIN COMMUNICATION PROTOCOL FOR ENHANCED NETWORKED DECENTRALIZED SYSTEMS

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	:H04L0009320000, G06Q0020380000, H04L0009080000, G06F0009500000, G06F0021600000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)CMR COLLEGE OF ENGINEERING & TECHNOLOGY Address of Applicant :KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401. Hyderabad ----- -- ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. S. KIRUBAKARAN Address of Applicant :Professor Computer Science and Engineering CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad ----- 2)Ms. B. ARCHANA Address of Applicant :Assistant Professor Computer Science and Engineering CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad ----- 3)Ms. M. N. SAILAJA Address of Applicant :Assistant Professor Computer Science and Engineering CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, Hyderabad ----- 4)Mr. GOLLA SAIDULU Address of Applicant :Assistant Professor Computer Science and Engineering CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad ----- 5)Dr. P. SENTHIL Address of Applicant :Assistant Professor Computer Science and Engineering CMR COLLEGE OF ENGINEERING & TECHNOLOGY KANDLAKOYA, MEDCHAL ROAD, HYDERABAD, TELANGANA, INDIA, 501401 Hyderabad -----

(57) Abstract :
INTER-BLOCKCHAIN COMMUNICATION PROTOCOL FOR ENHANCED NETWORKED DECENTRALIZED SYSTEMS ABSTRACT The invention discloses an Inter-Blockchain Communication Protocol (IBCP) designed to enhance decentralized systems' networked capabilities. The IBCP establishes secure communication channels between multiple blockchains, allowing seamless and secure data exchange. Employing cryptographic authentication ensures the integrity of communication participants. The protocol includes dynamic features, such as consensus mechanism handling and smart contract interoperability, promoting adaptability across diverse blockchain architectures. The system comprises modules for communication, authentication, and data transmission, providing a comprehensive framework for efficient and secure inter-blockchain transactions. Additionally, the protocol addresses security concerns with a monitoring module and adapts to varying network conditions. This invention empowers decentralized networks by facilitating robust, scalable, and interoperable communication between blockchains, fostering a more connected and resilient decentralized ecosystem.

No. of Pages : 16 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001513 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : WEEDING ROBOT: COMPLETE AUTONOMOUS MACHINE FOR MORE ECOLOGICAL AND ECONOMICAL WEEDING OF CROPS

(51) International classification :A01M0021020000, C12N0001140000, A01N0043540000, A01N0063300000, H04Q0011040000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to :NA
Application Number :NA
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(62) Divisional to :NA
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(57) Abstract :

ABSTRACT: Weed management is done through the mechanical, cultural and chemical means. Use of biological control methods in field crops is being considered, but still not much in use. Use of herbicides is an important method in the modern concept of much in use. In addition to this, non-availability of laborers to accomplish the task of weeding is a potential threat in present- and future-day agriculture. In this context, automated robots play a major role to support farmers in weed management effectively without involving any drudgery and thus contributing to enhanced productivity. Shatter cane (*Sorghum bicolor*) and Johnson grass are common weeds in the India, harmful and difficult to control. They grow quickly, resemble a corn plant, and compete aggressively with the crop. What makes things worse is that they can introduce fungi and bacteria and are easy to transfer to other fields. The main aim is to support Farmers with Image Processing Algorithms for identification of Shatter cane and Johnson grass from imagery.

No. of Pages : 7 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001516 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : ENVIRONMENTAL POLLUTION MONITORING & ALERT SYSTEM IN URBAN CITIES

(51) International classification :G06Q0050260000, H04L0067120000, G01N0015060000, G16H0050200000, G06F0016290000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :
ENVIRONMENTAL POLLUTION MONITORING & ALERT SYSTEM IN URBAN CITIES ABSTRACT More Air is an adaptable and reasonably priced tool for monitoring city air pollution. Presented in this invention are the preliminary results that went into building the system. An integral part of it is the sensor deployment method that More Air came up with; it makes use of nomadic and mobile sensors along with medical data collected from a children's hospital. Locating cities with a high rate of respiratory diseases is one use of this data. One such distinguishing feature is the use of machine learning for outcome prediction. Public baths, public ovens, open-air street food sellers, and charity stores have a greater impact on particulate matter (PM) levels than vehicle traffic does in several neighbourhoods of Morocco, according to More Air's agile deployment technique. An urban pollution awareness campaign has been launched with the help of a geographic information system (GIS) that gives people real-time information about the air quality in various areas.

No. of Pages : 15 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001520 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A LANGUAGE LEARNING SYSTEM WITH INTERACTIVE REAL-TIME FEEDBACK

(51) International classification :G09B0019060000, G06Q0030020000, G09B0019040000, G09B0005060000, G09B0007020000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

The proposed invention introduces A Language Learning System with Interactive Real-time Feedback, a dynamic, AI-driven language education platform equipped with speech recognition, multimedia, and instant feedback mechanisms. Customized to accommodate diverse learning styles and proficiency levels, it offers personalized language learning experiences, including immersive conversations with virtual language partners. Gamification elements incentivize progress, maintaining user engagement, while a vast repository of audiovisual content exposes learners to cultural nuances. This system transcends geographical and socioeconomic barriers, democratizing language education, fostering global literacy, and promoting cross-cultural understanding. By promoting adaptability and enhancing communication skills, it empowers individuals in an ever-evolving world, ultimately contributing to a more interconnected and empathetic global society. Accompanied Drawing [FIGS. 1-2]

No. of Pages : 21 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001521 A

(19) INDIA

(22) Date of filing of Application :08/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : NATURAL FIBER COMPOSITES FOR BIOMEDICAL APPLICATIONS AND METHOD THEREOF

(51) International classification :C08J0005040000, A61L0015320000, A61L0027300000, A61L0015460000, A61L0027460000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The invention relates to the field of biomedical materials, specifically focusing on Natural Fiber Composites for Biomedical Applications and Method Thereof. The disclosed method comprises selecting natural fibers, processing them into suitable forms, and integrating them with biocompatible matrices or coatings to create composite materials tailored for medical use. These materials exhibit superior biocompatibility, mechanical strength, and sustainability compared to traditional synthetic counterparts. The resulting natural fiber composites find applications in orthopedic implants, prosthetics, tissue engineering scaffolds, drug delivery systems, wound dressings, medical textiles, and more. This innovative approach addresses critical concerns related to biocompatibility, environmental impact, and resource conservation, ushering in a transformative era of sustainable and biocompatible solutions in the biomedical industry, with far-reaching benefits for patients, healthcare providers, and the environment. Accompanied Drawing [FIGS. 1-2]

No. of Pages : 23 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :08/01/2024

(21) Application No.202441001524 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A METHOD AND SYSTEM FOR PROVIDING TIME SYNCHRONIZATION INFORMATION FOR TIME SENSITIVE COMMUNICATION IN A 5G SYSTEM

(51) International classification :G06F0016230000, G06N0020000000, H04L0007000000, H04J0003060000, G02B0027000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

[054] The proposed invention presents a comprehensive approach to address the pivotal challenge of time synchronization within the context of 5G Time Sensitive Communication (TSC). Leveraging cutting-edge technologies, including machine learning and artificial intelligence, our system offers a dynamic synchronization solution capable of predicting and compensating for synchronization errors in real-time, ensuring sub-microsecond accuracy across diverse applications within the 5G ecosystem. Additionally, synchronized base stations are strategically deployed to minimize signal propagation delays, guaranteeing consistent low-latency communication in dynamic network environments. Specialized synchronization protocols, enriched with error detection and correction mechanisms, further enhance the reliability of time-sensitive data transmission. With this holistic solution, our invention revolutionizes communication precision and efficiency, paving the way for transformative applications in autonomous vehicles, telemedicine, and industrial automation, ultimately reshaping the landscape of 5G TSC. Accompanied Drawing [FIGS. 1-2]

No. of Pages : 23 No. of Claims : 10

(54) Title of the invention : SYSTEMS AND METHODS OVARIAN CANCER PREDICTION USING DEEP LEARNING ALGORITHMS

(51) International classification (86) International Application No (87) International Publication No (61) Patent of Addition to Application Number (62) Divisional to Application Number	:G01N0033564000, G01N0033680000, A61M0003020000, G11C0011560000, G06N0007000000 :NA :NA : NA :NA :NA :NA	(71)Name of Applicant : 1)KONERU LAKSHMAIAH EDUCATION FOUNDATION Address of Applicant :KONERU LAKSHMAIAH EDUCATION FOUNDATION, GREEN FIELDS, K L UNIVERSITY, VADDESHWARAM, 522 302,ANDHRA PRADESH, INDIA VADDESHWARAM ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Namani Deepika, KONERU LAKSHMAIAH EDUCATION FOUNDATION Address of Applicant :Research scholar, Computer Science and Engineering, KONERU LAKSHMAIAH EDUCATION FOUNDATION, GREEN FIELDS, K L UNIVERSITY, VADDESHWARAM, 522 302, ANDHRA PRADESH, INDIA VADDESHWARAM ----- 2)Dr. Mahesh Babu Arrama, KONERU LAKSHMAIAH EDUCATION FOUNDATION Address of Applicant :Professor, Computer science and Engineering, Koneru Lakshmaiah Education Foundation, KL University, Aziznagar, Moinabad Road, Near TS Police Academy, Hyderabad, Telangana, India. 500075, India Hyderabad -----

(57) Abstract :
Systems and methods for evaluating an ovarian or uterine disease condition in a subject are provided. A uterine lavage fluid sample from the subject is obtained. For each autoantibody species in a first set of autoantibody species, a corresponding abundance value for the respective autoantibody species in the uterine lavage fluid sample is determined, thereby obtaining an autoantibody abundance dataset for the subject. The autoantibody abundance dataset is input into a classifier trained to distinguish between at least two states of the ovarian or uterine disease condition based on at least abundance values for the first set of autoantibody species. The classifier thereby obtains a probability or likelihood that the subject has a particular state of an ovarian or uterine disease condition.

No. of Pages : 10 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :09/01/2024

(21) Application No.202441001542 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN AI AND ML BASED SMART TRACTORS COME ROBOTICS FOR AGRICULTURE OPERATIONS

(51) International classification :G06Q0010060000, B25J0009160000, G06Q0030020000, H04N0001387000, A01B0079000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
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(57) Abstract :

Robots are applicable in diverse areas and sectors and among these important are include healthcare, business, agriculture, transportation, manufacturing etc. As far as agriculture is concerned, Robotics is very much associated with the various pre and postproduction of agriculture and similar sectors. Initially in harvesting only the robotics were used but currently, there are more concerns where robotics can be applicable viz. drone for the weed controlling, plant seeding, environmental assessing and monitoring, soil mapping and analysis, etc. Initially, only basic Information Technology tools were common in agricultural practices but in recent past, many technologies are using in agriculture and among these important are Cloud Computing, Big Data, HCI, Usability Engineering, Robotics and AI, etc. According to the market analysis companies the growth of the robotics is very increasing and will touch the high very soon. This paper talks about the basics of robotics including a special focus on agriculture.

No. of Pages : 21 No. of Claims : 9

(54) Title of the invention : ENERGY-EFFICIENT IOT-BASED LANDSLIDE DETECTION SYSTEM WITH SOLAR HARVESTING INTEGRATION

(51) International classification :G08B0021100000, H02J0007350000, H04W0052020000, H02S0020300000, H04L0067120000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Amit Raikar Address of Applicant :H No. 2-154, Kamakshi Nivas, Jagat ----- ----- 2)THIMMARAJA YADAVA G 3)RAJESH MAHARUDRA PATIL 4)S.S.METAGAR 5)AMIT RAIKAR Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Amit Raikar Address of Applicant :H No. 2-154, Kamakshi Nivas, Jagat ----- ----- 2)THIMMARAJA YADAVA G Address of Applicant :Associate Professor, Department of Electronics and Communication Engineering, Nitte Meenakshi Institute of Technology, P.B.No.6429, Govindapura, Yelahanka, Bengaluru, Karnataka ----- ----- 3)RAJESH MAHARUDRA PATIL Address of Applicant :Professor, Department of Electrical Engineering Smt. Kamala and Sri. Venkappa M. Agadi College of Engineering & Technology, Lakshmeshwar, Karnataka ----- ----- 4)S.S.METAGAR Address of Applicant :Assistant Professor, Department of Electronics & Telecommunication Engineering, A G Patil Institute of Technology, 18/[2 A 2] 2 ,Pratap Nagar, Opp.SRP Camp Vijapur Road, Solapur, Maharashtra ----- ----- 5)AMIT RAIKAR Address of Applicant :Assistant Professor, Department of Electronics & Communication Engineering, Vidyavardhaka College of Engineering, P.B. No. 206, 3rd Stage, Gokulam, Mysuru, Karnataka ----- ----- -

(57) Abstract :

The main aim of the proposed system is to design an energy-efficient IoT-based landslide detection system with a focus on renewable energy integration, specifically solar harvesting. The system incorporates a network of sensors, including vibration, gyroscopes, rainfall sensors, and soil moisture sensors, to monitor ground movement, tilt, rainfall, and soil saturation levels. A low-power microcontroller processes the sensor data, and the system is powered by a combination of solar panels and rechargeable batteries, ensuring continuous operation even during periods without direct sunlight. Communication is facilitated through a low-power communication module NB-IoT, transmitting aggregated data periodically to a central server. The sensed data are also transmitted via MQTT protocol. To optimize energy efficiency, the system employs adaptive solar power usage based on available sunlight and battery levels. This innovative system aims to provide an effective and sustainable solution for landslide detection, offering early warning capabilities. The integration of solar harvesting ensures the system's independence from traditional power sources, making it suitable for remote and off-grid locations.

No. of Pages : 7 No. of Claims : 4

(54) Title of the invention : A FOOTWEAR WITH REFLEXOLOGY

(51) International classification :A61B0005000000, A61B0005024000, A61H0039040000, A61B0005110000, H04S0007000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)VELLORE INSTITUTE OF TECHNOLOGY, CHENNAI Address of Applicant :Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)VIJAYAKUMAR P Address of Applicant :Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai - 600127, Tamil Nadu, India. Chennai ----- 2)JAGANNATH M Address of Applicant :Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai - 600127, Tamil Nadu, India. Chennai ----- 3)VISHAL K Address of Applicant :Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai - 600127, Tamil Nadu, India. Chennai ----- 4)KRISHNAA YOGITH R S Address of Applicant :Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai - 600127, Tamil Nadu, India. Chennai ----- 5)SRI BALAJI J Address of Applicant :Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai - 600127, Tamil Nadu, India. Chennai -----

(57) Abstract :
A footwear (100 with reflexology comprising: an acupressure pad (102); at least one pulse sensor (110); a plurality of vibrating pads 106 positioned at predefined positions on the acupressure pad (102); and a control unit 108 in communication with the at least one pulse sensor (110). The control unit 108 comprises one or more processors coupled to a memory storing instructions executable by the one or more processors is configured to: measure, using the at least one pulse sensor (110), the pulse of a user (112) wearing the footwear 100; analyse, the measured pulse rate with a pre-defined pulse rate for detecting stress of the user (112); actuate, using one or more vibrating pads 106 from the plurality of vibrating pads (106), upon detecting stress of the user (112) being higher than the pre-defined pulse rate; and stop.

No. of Pages : 15 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :09/01/2024

(21) Application No.202441001558 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD FOR OPERATING AND PROTECTING WIPER BLADE ASSEMBLY USING RETRACTION MECHANISM

(51) International classification :B60S0001380000, B60S0001080000, B60S0001040000, B62D0025120000, B05C0001020000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)VELLORE INSTITUTE OF TECHNOLOGY, CHENNAI Address of Applicant :Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)VINOD VASAN Address of Applicant :Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai - 600127, Tamil Nadu, India. Chennai ----- 2)NAVEEN VENKATESH S Address of Applicant :Postdoctoral Researcher, School of Mechanical Engineering (SMEC), Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai - 600127, Tamil Nadu, India. Chennai ----- 3)ANNAMALAI K Address of Applicant :Professor, School of Mechanical Engineering (SMEC), Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai - 600127, Tamil Nadu, India. Chennai ----- 4)SUGUMARAN V Address of Applicant :Professor, School of Mechanical Engineering (SMEC), Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai - 600127, Tamil Nadu, India. Chennai -----

(57) Abstract :

The present disclosure relates to for operating and protecting wiper blade assembly (104) using retraction mechanism. The system (102) includes wiper blade assembly (104) operatively coupled to electric drive unit (114) monitors operating condition of wiper blade assembly (104) triggered by end-user. The system (102) includes roller units (112-1, 112-2) powered by electric drive unit (114) which enables roller units (112-1, 112-2) to rotate in clockwise direction, anti-clockwise direction based on operating condition. The system (102) includes shield plate (110) attached with wiper blade assembly (104) and remains in contact with roller units (112-1, 112-2), roller units (112-1, 112-2) pushes shield plate (110) outwards from underneath vehicle's bonnet (202) towards vehicle's windshield (204) based on wiper deactivation, roller units (112-1, 112-2) pulls shield plate (110) from vehicle's windshield (204) to underneath vehicle's bonnet (202) based on wiper activation and enable wiper blade assembly (104) to operate wiper blades (106-1, 106-2).

No. of Pages : 21 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001559 A

(19) INDIA

(22) Date of filing of Application :09/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM FOR SENTIMENT-AWARE SARCASM GENERATION

(51) International classification :G06F0040300000, G10L0015220000, G10L0015260000, G06N0003080000, G06Q0030020000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

A system 100 to generate sentiment aware sarcastic response 110 can include a server comprising at least one database, one or more generator module 108, and one or more processors to perform operations to receive an input utterance 102 that comprises audio speech 204, and text statement 206 to compute emotion 208 and sentiments 210 using natural language processing. A recommender module 212 receives the input audio and text statement with emotions 208 and sentiments 210 else divert input to a conversation management module 214. A generator selector 106 select input utterance 102 and classify into five categories using natural language processing to generate more relevant and contextually appropriate sarcastic responses 110. An input analyser 104 extracts the information from the user input utterance 102. The system 100 generates sarcasm with the aid of the recommender module 212 using generator selector 106. The method takes ethical consent before generating sarcasm responses 110.

No. of Pages : 21 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :09/01/2024

(21) Application No.202441001590 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : EMOTION DETECTION MODEL

(51) International classification :G10L0025630000, G06K0009620000, G06N0020000000, G06F0003010000, G10L0015060000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

An emotion detection model is described herein. The emotion detection model employs machine learning with the Librosa package and Ravdess audio library. Python-based, it transforms audio files into spectrograms, normalizes, and extracts features for emotion classification. The model integrates with a Django framework, incorporating JavaScript's web audio and MediaRecorder API for user interaction. Utilizing MongoDB and MySQL, the system stores and retrieves audio files, ensuring accessibility. The model's rigorous training attains an average accuracy of 83.5% to 85%, demonstrating effectiveness in emotion recognition. The abstract encapsulates an innovative system seamlessly integrating machine learning, web development, and database technologies for emotion detection in audio data.

No. of Pages : 21 No. of Claims : 5

(54) Title of the invention : AN INTEGRATED PRECISION AGRICULTURE AND FARM SECURITY SYSTEM

(51) International classification :A01G0025160000, G06Q0050020000, A01B0079000000, G01N0033000000, H04L0067120000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)B.N.M Institute of Technology Address of Applicant :Post box no. 7087, 27th cross, 12th Main, Banashankari 2nd Stage, Bengaluru-560070 ----- ----- 2)Dr Krishnamurthy G N Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr Krishnamurthy G N Address of Applicant :Principal, B.N.M Institute of Technology ,Post box no. 7087, 27th cross, 12th Main, Banashankari 2nd Stage, Bengaluru-560070 ----- ----- 2)Dr Raghavendra C K Address of Applicant :Associate Professor , Department of Computer Science and Engineering, B.N.M Institute of Technology ,Post box no. 7087, 27th cross, 12th Main, Banashankari 2nd Stage, Bengaluru-560070 ----- ----- 3)Keerthana M Address of Applicant :Department of Computer Science and Engineering , B.N.M Institute of Technology ,Post box no. 7087, 27th cross, 12th Main, Banashankari 2nd Stage, Bengaluru-560070 ----- ----- 4)Lalana Nagaraj Address of Applicant :Department of Computer Science and Engineering , B.N.M Institute of Technology ,Post box no. 7087, 27th cross, 12th Main, Banashankari 2nd Stage, Bengaluru-560070 ----- ----- 5)Lavanya U Address of Applicant :Department of Computer Science and Engineering , B.N.M Institute of Technology ,Post box no. 7087, 27th cross, 12th Main, Banashankari 2nd Stage, Bengaluru-560070 ----- -----

(57) Abstract :
An integrated precision agriculture and farm security system is described herein. The present invention discloses an integrated precision agriculture and farm security system. Utilizing a synergy of sensors, actuators, and cloud connectivity, the present invention optimizes crop management and ensures farm protection. Soil moisture and environmental sensors enable precise irrigation control, while motion and flame sensors detect wildlife intrusion and potential fire incidents. The system's actuators, including a water pump and piezo buzzer, respond to data-driven decisions, enhancing operational efficiency. Cloud connectivity facilitates real-time data transmission, and a web-based dashboard provides remote monitoring. The integrated precision agriculture and farm security system empowers farmers with proactive decision-making, resource optimization, and fortified security measures in modern agriculture.

No. of Pages : 16 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :09/01/2024

(21) Application No.202441001613 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SMART CONTRACTS FOR AUTOMATED COMPLIANCE IN SUPPLY CHAIN MANAGEMENT USING BLOCKCHAIN

(51) International classification :G06Q0010080000, H04L0009320000, G06Q0010060000, G06F0021640000, G06Q0020380000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr.Piyush Kumar Pareek Address of Applicant :Dr.Piyush Kumar Pareek Professor and Head (AI-ML & IPR CELL), Nitte Meenakshi Institute of Technology, Yelahanka, Bengaluru-560064, Karnataka, India ----- 2)Ramya Thatikonda 3)Ragupathi Thota 4)Dr C.Umarani 5)Zabiha Khan 6)Nitte Meenakshi Institute of Technology,Bangalore Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr.Piyush Kumar Pareek Address of Applicant :Dr.Piyush Kumar Pareek Professor and Head (AI-ML & IPR CELL), Nitte Meenakshi Institute of Technology, Yelahanka, Bengaluru-560064, Karnataka, India ----- 2)Ramya Thatikonda Address of Applicant :Ramya Thatikonda, Software Engineer, PhD in Information Technology, University of the Cumberlands, Williamsburg, USA Email: ramya.t0211@gmail.com ----- 3)Ragupathi Thota Address of Applicant :Ragupathi Thota, Sr Manager, Software Development & Engineering, Masters in Computer Science, University of the Central Missouri, Email: ragupathi1240@gmail.com ----- 4)Dr C.Umarani Address of Applicant :Dr C.Umarani Head-Department of Computer science and Applications Christ Academy Institute for Advanced Studies umarani@caias.in ---- ----- 5)Zabiha Khan Address of Applicant :Zabiha Khan Associate Professor, Department of AIML Nitte Meenakshi Institute of Technology, Bengaluru zabiha.khan@nmit.ac.in ----- ----- 6)Nitte Meenakshi Institute of Technology,Bangalore Address of Applicant :Nitte Meenakshi Institute of Technology,Bangalore P.B.No.6429, Yelahanka, Bangalore 560064, Karnataka, India. 7022574966 Piyush.kumar@nmit.ac.in -----

(57) Abstract :

The present invention introduces a novel system for supply chain management that leverages the power of blockchain technology and smart contracts to automate compliance verification processes. In traditional supply chains, ensuring adherence to rules and regulations is a complex and time-consuming task, often fraught with manual errors and lacking transparency. The proposed system addresses these challenges by integrating smart contracts, self-executing code on a blockchain, to streamline compliance checks throughout the supply chain. The system comprises a distributed and decentralized blockchain infrastructure responsible for storing and managing smart contracts. Each smart contract is meticulously crafted to encapsulate compliance rules and regulations specific to various stages or processes within the supply chain. Trigger events, such as product movements, manufacturing milestones, or regulatory changes, prompt the automatic execution of the corresponding smart contracts. These smart contracts embody predefined logic for compliance checks, encompassing a spectrum of verification processes, from product specifications to environmental standards and regulatory requirements. Upon successful compliance verification, the smart contracts autonomously execute predefined actions, including updating the blockchain with real-time compliance status, triggering payments, notifying stakeholders, or generating compliance reports. The transparency and immutability inherent in blockchain technology empower all authorized participants in the supply chain to access and audit compliance records in real-time. This transparency enhances trust and accountability among stakeholders, providing a verifiable record of compliance throughout the supply chain. In summary, the invention introduces an innovative and secure solution to supply chain management challenges by seamlessly integrating smart contracts on a blockchain. This system not only automates and accelerates compliance verification but also ensures transparency and trustworthiness, thereby significantly enhancing the overall integrity of the supply chain.

No. of Pages : 11 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :09/01/2024

(21) Application No.202441001614 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : COLD CHAIN MONITORING WITH BLOCKCHAIN

(51) International classification :G06Q0010080000, H04L0067120000, H04L0009320000, H04W0004700000, H04W0004800000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
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(57) Abstract :

Title: Cold Chain Monitoring with Blockchain The present invention introduces an innovative system and method for enhancing the monitoring and integrity of the cold chain through the integration of blockchain technology and Internet of Things (IoT) devices. The system ensures real-time tracking, transparency, and traceability of environmental conditions for temperature-sensitive goods during transportation and storage. In the realm of supply chains, particularly in the transport and storage of perishable goods, maintaining optimal environmental conditions is critical for product quality and regulatory compliance. Existing cold chain monitoring systems often face challenges related to data accuracy, transparency, and security. The proposed invention addresses these challenges by combining the strengths of blockchain and IoT technology. The system comprises a distributed and decentralized blockchain infrastructure, wherein smart contracts are deployed to automate monitoring and compliance actions. IoT devices, equipped with sensors, are strategically placed throughout the cold chain to monitor temperature, humidity, and other relevant parameters in real-time. The smart contracts, embedded with predefined rules and conditions, automatically trigger actions based on the data received from the IoT devices.

No. of Pages : 8 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :09/01/2024

(21) Application No.202441001615 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SECURE SYSTEM FOR SUPPLY CHAIN MANAGEMENT USING BLOCKCHAIN

(51) International classification :H04L0009320000, G06Q0020400000, H04L0009060000, G06Q0010080000, G06F0021640000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
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(57) Abstract :

The present invention introduces a novel approach to supply chain management, leveraging the secure and transparent characteristics of blockchain technology. This system establishes a decentralized and tamper-resistant infrastructure, providing heightened security, transparency, and efficiency in the management of supply chain processes. In traditional supply chain systems, concerns related to data security, transparency, and trust among participants persist. The proposed secure system addresses these challenges by integrating blockchain principles, smart contracts, and identity management to create an ecosystem that ensures the integrity and confidentiality of supply chain transactions. Key components of the system include a decentralized blockchain infrastructure where participants maintain nodes, ensuring a shared and immutable ledger. An identity management system employing digital signatures and cryptographic techniques enhances security, authenticating and authorizing participants securely. Smart contracts automate and enforce predefined rules within the supply chain, eliminating the need for intermediaries and enhancing transparency. The system further ensures secure communication channels through encryption, safeguarding sensitive information exchanged between participants. Real-time traceability and an immutable audit trail are achieved by recording all supply chain transactions on the blockchain, allowing stakeholders to trace the origin, location, and status of products.

No. of Pages : 9 No. of Claims : 10

(54) Title of the invention : CLIMATE BASED SELF- SPEED CONTROL SYSTEM IN CAR USING ARTIFICIAL INTELLIGENCE

(51) International classification :G11B0020100000, H04B0010112000, G06Q0040080000, G06N0003040000, G06K0009620000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)RAMCO INSTITUTE OF TECHNOLOGY Address of Applicant :DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE, RAMCO INSTITUTE OF TECHNOLOGY, KRISHNAPURAM PANCHAYAT, NORTH VENGANALLUR VILLAGE, RAJAPALAYAM-626117 ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)M.KALIAPPAN Address of Applicant :PROFESSOR,DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE, RAMCO INSTITUTE OF TECHNOLOGY, KRISHNAPURAM PANCHAYAT, NORTH VENGANALLUR VILLAGE, RAJAPALAYAM-626117. ----- 2)S.VIMAL Address of Applicant :ASSOCIATE PROFESSOR, DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE, RAMCO INSTITUTE OF TECHNOLOGY, KRISHNAPURAM PANCHAYAT, NORTH VENGANALLUR VILLAGE, RAJAPALAYAM-626117. ----- 3)C.USHARANI Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE, RAMCO INSTITUTE OF TECHNOLOGY, KRISHNAPURAM PANCHAYAT, NORTH VENGANALLUR VILLAGE, RAJAPALAYAM-626117. ----- 4)S.JOTHI LAKSHMI Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE, RAMCO INSTITUTE OF TECHNOLOGY, KRISHNAPURAM PANCHAYAT, NORTH VENGANALLUR VILLAGE, RAJAPALAYAM-626117. ----- 5)S.SELVABALAJI Address of Applicant :STUDENT, DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE, RAMCO INSTITUTE OF TECHNOLOGY, KRISHNAPURAM PANCHAYAT, NORTH VENGANALLUR VILLAGE, RAJAPALAYAM-626117. ----- 6)B.MANISH KUMAR Address of Applicant :STUDENT, DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE, RAMCO INSTITUTE OF TECHNOLOGY, KRISHNAPURAM PANCHAYAT, NORTH VENGANALLUR VILLAGE, RAJAPALAYAM-626117. ----- 7)K.MAHESH BOOPATHI Address of Applicant :STUDENT, DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE, RAMCO INSTITUTE OF TECHNOLOGY, KRISHNAPURAM PANCHAYAT, NORTH VENGANALLUR VILLAGE, RAJAPALAYAM-626117. -----

(57) Abstract :
This system introduces a paradigm shift in vehicular autonomy, integrating adaptive artificial intelligence to not only enable autonomous driving but also dynamically adjust vehicle speed based on real-time climate and 'environmental conditions. These sensors meticulously capture and Feed real-time data on the vehicle's surroundings into a robust artificial intelligence framework. Unlike conventional systems, our solution employs cuttingedge, machine learning algorithms to process and fuse this data, facilitating precise decision making. The self-speed control system transcends the traditional boundaries of autonomous driving by actively responding to an array of environmental factors. It continuously monitors and adapts to factors such as traffic conditions, weather dynamics, temperature fluctuations: wind patterns, Air Quality Index (AQI), road infrastructure, and unforeseen obstacles Crucially, the system operates with a paramount focus on safety, restraining speed until optimal environmental conditions are assured. This dynamic approach ensures not only safe but also smooth and efficient navigation, even in the most challenging and unpredictable environments. Through this innovative self-speed control system= we pave the way for a safer, more efficient transportation landscape.

No. of Pages : 18 No. of Claims : 10

(54) Title of the invention : SYSITTEM AND METHOD FOR SECURE CRIME RECORD DATA ENCRYPTION IN DIGITAL IMAGE

(51) International classification :H04L0009080000, H04L0009060000, H04W0012060000, H04W0048100000, H04W0012020000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)VETRIVEL AGALYA Address of Applicant :Dr. Agalya V Professor and Associate Head R&D(IPR Cell) New Horizon College of Engineering New Horizon Knowledge Park Outer Ring Road,Near Marathalli Bellandur(P), Bangalore- 560103 ----- 2)T. Loganayagi Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)T. Loganayagi Address of Applicant :T. Loganayagi, Professor,Department of Cyber Security Engineering, Paavai Engineering College, Namakkal, Tamil Nadu- 635018. Namakkal ----- 2)C.Yashika Address of Applicant :C.Yashika, Department of Cyber Security Engineering, Paavai Engineering College, Namakkal, Tamil Nadu- 635018. Namakkal ----- 3)V M.Sowmya Address of Applicant :V M.Sowmya, Department of Cyber Security Engineering, Paavai Engineering College, Namakkal, Tamil Nadu- 635018. Namakkal ----- 4)D.Suchimitha Address of Applicant :D.Suchimitha, Department of Cyber Security Engineering, Paavai Engineering College, Namakkal, Tamil Nadu- 635018. Namakkal ----- 5)S. B. Hariharan Address of Applicant :S. B. Hariharan, Department of Cyber Security Engineering, Paavai Engineering College, Namakkal, Tamil Nadu- 635018. Namakkal ----- 6)M.Mohanraj Address of Applicant :M.Mohanraj, Department of Cyber Security Engineering, Paavai Engineering College, Namakkal, Tamil Nadu- 635018. Namakkal ----- 7)S.Prabhakaran Address of Applicant :S.Prabhakaran, Department of Cyber Security Engineering, Paavai Engineering College, Namakkal, Tamil Nadu- 635018. Namakkal ----- 8)B.Sanjaykumar Address of Applicant :B.Sanjaykumar, Department of Cyber Security Engineering, Paavai Engineering College, Namakkal, Tamil Nadu- 635018. Namakkal ----- 9)S.Suryaprakash Address of Applicant :S.Suryaprakash, Department of Cyber Security Engineering, Paavai Engineering College, Namakkal, Tamil Nadu- 635018. Namakkal ----- 10)R.Thirupathi Address of Applicant :R.Thirupathi, Department of Cyber Security Engineering, Paavai Engineering College, Namakkal, Tamil Nadu- 635018. Namakkal -----

(57) Abstract :
A secure crime record data encryption in digital image (100) comprising of An Encryption Strength (101) and A Data Transmission Security (102).

No. of Pages : 13 No. of Claims : 5

(54) Title of the invention : A NOVEL TOOTH POWDER FORMULATION FOR NATURAL ORAL CARE

(51) International classification :A61Q0011000000, A61K0036610000, A61K0036906400, A61K0036600000, A61K0036540000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)SREE BALAJI MEDICAL COLLEGE AND HOSPITAL Address of Applicant :NO 7, WORKS ROAD, CHROME PET, CHENGALPATTU CHENNAI TAMIL NADU INDIA 600 044 Chennai ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)DEEPALAKKSHMI B Address of Applicant :DEPARTMENT OF RESEARCH AND DEVELOPMENT, SREE BALAJI MEDICAL COLLEGE AND HOSPITAL, NO 7, WORKS ROAD, CHROME PET, CHENGALPATTU CHENNAI TAMIL NADU INDIA 600044 Chennai ----- 2)SHYAMALA S Address of Applicant :DEPARTMENT OF RESEARCH AND DEVELOPMENT, SREE BALAJI MEDICAL COLLEGE AND HOSPITAL, NO 7, WORKS ROAD, CHROME PET, CHENGALPATTU CHENNAI TAMIL NADU INDIA 600044 Chennai ----- 3)DR. SARAMMA MINI JACOB Address of Applicant :DEPARTMENT OF RESEARCH AND DEVELOPMENT, SREE BALAJI MEDICAL COLLEGE AND HOSPITAL, NO 7, WORKS ROAD, CHROME PET, CHENGALPATTU CHENNAI TAMIL NADU INDIA 600044 Chennai ----- 4)SATHIYAMOORTHY P Address of Applicant :DEPARTMENT OF ZOOLOGY, GOVERNMENT ARTS COLLEGE FOR MEN (AUTONOMOUS) NANDANAM, CHENNAI CHENNAI TAMIL NADU INDIA 600035 Chennai ----- 5)DR. K. ELUMALAI Address of Applicant :DEPARTMENT OF ZOOLOGY, GOVERNMENT ARTS COLLEGE FOR MEN (AUTONOMOUS) NANDANAM CHENNAI CHENNAI TAMIL NADU INDIA 600035 Chennai -----

(57) Abstract :
TITLE: A NOVEL TOOTH POWDER FORMULATION FOR NATURAL ORAL CARE APPLICANT: SREE BALAJI MEDICAL COLLEGE AND HOSPITAL ABSTRACT The present invention discloses a process of preparation of novel tooth powder formulation for natural oral care comprises of following steps; a. individually cleaning and grinding desiccated flower bud of Syzygium aromaticum, dried whole pod of Eleteria cardamomum, desiccated skin of Terminalia chebula fruit, dried bark of Cinnamomum verum, and dehydrated aerial root tips of Ficus benghalensis into coarse powder followed by amalgamating to form a mixture; b. adding edible camphor and rock salt to the mixture and pulverising followed by air drying to form novel tooth powder formulation and storing in a sterilized and dried glass jar. The present invention also discloses a novel tooth powder formulation for natural oral care prepared by the process as described above.

No. of Pages : 21 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001641 A

(19) INDIA

(22) Date of filing of Application :09/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : HYDRAULIC TRI-WHEEL WHEELBARROW

(51) International classification :B60K17/06, B60K20/02, B60K26/00,
B60K5/00, B62D51/04
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The invention pertains to the field of wheeled vehicles, with a specific focus on wheelbarrows designed for transporting heavy loads. Wheelbarrows have been essential tools for centuries, facilitating the movement of materials and goods in a wide range of applications, from construction and agriculture to gardening and landscaping. The traditional wheelbarrow design consists of a single wheel located at the front, a pair of handles for manual operation, and a tray or container for carrying the load. While this design has served its purpose, it has inherent limitations that can make it challenging to use in certain situations. One of the primary limitations of conventional wheelbarrows is their stability, particularly when navigating uneven terrain. The single-wheel design often leads to tipping, making it difficult to transport loads over rough or sloped surfaces. This instability can not only result in the loss of valuable materials but also pose safety hazards for the user.

No. of Pages : 19 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001646 A

(19) INDIA

(22) Date of filing of Application :09/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM FOR MONITORING AGRICULTURAL CROPS IN STOCKS AND METHOD THEREOF

(51) International classification :C12N0015630000, A01G0009240000, C10L0005360000, A01B0039180000, G01N0027220000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Manipal Academy of Higher Education Address of Applicant :Madhav Nagar, Manipal, 576104, Karnataka, India. Manipal ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)TUSAR KANTI MISHRA Address of Applicant :Associate Professor, Department of Computer Science and Engineering, Manipal Academy of Higher Education, Manipal, 576104, Karnataka, India. Manipal ----- 2)SHRIRANG AMBAJI KULKARNI Address of Applicant :Associate Professor, Department of Information Technology, Manipal Academy of Higher Education, Manipal, 576104, Karnataka, India. Manipal ----- 3)ARKA DE Address of Applicant :S/o Asim Kumar De, Laxmi Kothi, Near Midas Residency, Deoghar, Jharkhand - 814112, India. Deoghar -- 4)SAMEEKSHA SARAF Address of Applicant :D/o Sunil Saraf, F503 Adarsh Rhythm Panduranga Nagar, Behind Fortis Hospital, Bangalore Urban, Karnataka - 560076, India. Bangalore ----- 5)ARUN Y PATIL Address of Applicant :Associate Professor, Department of Mechanical Engineering, Manipal Academy of Higher Education, Manipal, 576104, Karnataka, India. Manipal -----

(57) Abstract :

The present disclosure relates generally to the field of agriculture. More specifically the present disclosure relates to a system for monitoring agricultural crops in stocks. The system (100) includes a plurality of sacks (104) knitted with a grid of threads (104-1) dipped in chemical solution and a sensor module (300) with an imaging unit (102-2), a moisture sensor (102-3) a gas sensor (102-4) and a microcontroller (102-1) coupled to imaging unit (102-2), moisture sensor (102-3) and the gas sensor (102-4). An alert signal is generated upon detecting potential danger to the stored plurality of agricultural crops thereby monitoring and preserving quality of the stored agricultural crops. The present disclosure further relates to a method of detecting spoilage in stored agricultural crops. Advantageously the present invention relates to a system and method that significantly reduces the risk of undetected spoilage, thus safeguarding the quality and economic value of the stored crops.

No. of Pages : 26 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :09/01/2024

(21) Application No.202441001647 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD FOR PROTECTING WIPER BLADE ASSEMBLY AND VEHICLE'S WINDSHIELD SURFACE FROM DAMAGES

(51) International classification :B60S0001380000, B60S0001080000, G01M0005000000, B60S0001480000, B60S0001400000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)VELLORE INSTITUTE OF TECHNOLOGY, CHENNAI Address of Applicant :Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)VINOD VASAN Address of Applicant :Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- 2)NAVEEN VENKATESH S Address of Applicant :Postdoctoral Researcher, School of Mechanical Engineering (SMEC), Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- 3)NITHYA VENKATESAN Address of Applicant :Professor, School of Electrical Engineering (SELECT), Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- 4)SUGUMARAN V Address of Applicant :Professor, School of Mechanical Engineering (SMEC), Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai -----

(57) Abstract :

The present disclosure relates to a system (102) for protecting wiper blade assembly (104) and vehicle's windshield surface (202) from damages. The wiper blade assembly (104) includes wiper stalks (106-1, 106-2) with wiper rubber beadings (108-1, 108-2) configured to wipe vehicle's windshield surface (202) based on one action triggered by end-user, one action includes active state, inactive state. The system (102) includes powered hinge joint (110) operatively connected to wiper stalks (106-1, 106-2), powered hinge joint (110) includes spherical contact stalk (206), load bearing stalk (204) configured to elevate and drop-down wiper stalks (106-1, 106-2). The system (102) includes electric motor drive unit (112) configured to supply electric power to powered hinge joint (110) based on one action, and enable spherical contact stalk (206) to elevate and drop-down wiper stalks (106-1, 106-2) through load bearing stalk (204) to protect wiper blade assembly (104) and vehicle's windshield surface (202) from damages.

No. of Pages : 24 No. of Claims : 10

(54) Title of the invention : SYSTEM AND METHOD FOR ENHANCING COMBUSTION EFFICIENCY THROUGH AN ELECTROLYSIS PROCESS

(51) International classification :C25B1/04, F02B43/10, F02M25/00 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to :NA Application Number :NA Filing Date :NA (62) Divisional to Application :NA Number :NA Filing Date :NA	(71)Name of Applicant : 1)VIT-AP University Address of Applicant :Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)SWATI SHUKLA Address of Applicant :Assistant Professor Senior Grade I, SENSE, VIT-AP University, Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati ----- 2)ALLI SADHVIK Address of Applicant :Student, School of Electronics and Communication Engineering, VIT-AP University, Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati ----- 3)PARSHA VENKATA SHIVA SAI Address of Applicant :Student, School of Computer Science Engineering, VIT-AP University, Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati -----

(57) Abstract :

The present disclosure relates to a system for enhancing combustion efficiency through electrolysis process. The system (102) includes power unit (104) operatively coupled to fuel gas generator (106), power unit (104) provides electric power to enable electrolysis process, fuel gas generator (106) electrolyzes water (H2O) into gasses. The system (102) includes fuel gas storage tank (108) connected to fuel gas generator (106), where fuel gas storage tank (108) receives gasses from fuel gas generator (106) and store gasses. The system (102) includes bubbler (110) connected to fuel gas storage tank (108), and configured to receive gasses from fuel gas storage tank (108), where bubbler (110) configured to remove impurities from gasses and liquefy gasses. The system (102) includes combustion engine (112) connected to bubbler (110), where combustion engine (112) receives combustion fuel from bubbler (110) and inject combustion fuel along carbon-based fuel to combustion chamber (114) for enhancing combustion efficiency.

No. of Pages : 19 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001658 A

(19) INDIA

(22) Date of filing of Application :09/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : INTELLIGENT TOOTHBRUSH FOR SMART DENTAL HEALTHCARE MONITORING USING IOT

(51) International classification :A46B001500000, A61B000500000, A61C0017220000, A61Q0011000000,
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
Evolution of toothbrush dates back to 1780s where animal hairs and feathers were used as bristles to clean the tooth. With the invention of nylon in 1930s, nylon bristles were made use for optimal pressure on teeth. Oral health commonly an indicator of human health much emphasis is laid on maintaining dental hygiene. Research studies show that dental caries is third- largest non- computable diseases next to cancer and heart diseases. Electric toothbrushes are oral healthcare product to clean teeth gums and tongue by rotation movements leading to success removal of plaque. Proposed is an Intelligent toothbrush for Smart Dental Healthcare monitoring using IoT. Toothbrush is equipped with Inertial Sensor, Rechargeable lithium battery, Arduino nano microcontroller. Coin cell battery and holder, switch, resistors side and connecting wires are connected to the smartphone app. Convolutional Neural Networks with long- short term memory is used for efficient brushing technique, based on recognition brushing posture.

No. of Pages : 16 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :09/01/2024

(21) Application No.202441001682 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : ENHANCING JUST-IN-TIME DEFECT PREDICTION WITH GRAPH-BASED MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE

(51) International classification :G06N0020000000, G06F0011360000, G06K0009620000, G06F0016901000, G06N0020200000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :
Enhancing Just-in-Time Defect Prediction with Graph-Based Machine Learning and Artificial Intelligence is the proposed invention. The proposed invention focuses on understanding the pros and cons of just-in-time defect prediction systems. The invention focuses on analyzing the enhancement of Just-in-Time Defect Prediction using algorithms of Graph-Based Machine Learning.

No. of Pages : 14 No. of Claims : 5

(54) Title of the invention : METHOD AND SYSTEM FOR A RECONFIGURABLE SETUP FOR TAILORED THERMAL CONTROL DURING A METAL ADDITIVE MANUFACTURING

(51) International classification :B33Y10/00, B33Y30/00, B33Y50/00 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Indian Institute of Technology Hyderabad Address of Applicant :DEPARTMENT OF MECHANICAL AND AEROSPACE ENGINEERING, IIT Hyderabad Road, Near NH-65, Sangareddy, Kandi, Telangana 502284, India. Hyderabad ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)SHIVAPRASAD CHERUKUPALLY Address of Applicant :Research scholar, Department of Mechanical and Aerospace Engineering, IIT Hyderabad Road, Near NH-65, Sangareddy, Kandi, Telangana 502284, India. Hyderabad ----- 2)VISHWANATH NAGALLAPATI Address of Applicant :Post doctoral fellow Mechanical and Aerospace Engineering, IIT Hyderabad Road, Near NH-65, Sangareddy, Kandi, Telangana 502284, India. Hyderabad ----- ----- 3)SURYAKUMAR SIMHAMBHATLA Address of Applicant :Professor Mechanical and Aerospace Engineering, IIT Hyderabad Road, Near NH-65, Sangareddy, Kandi, Telangana 502284, India. Hyderabad ----- 4)VENKATA REDDY NALLAGUNDLA Address of Applicant :Professor Mechanical and Aerospace Engineering, IIT Hyderabad Road, Near NH-65, Sangareddy, Kandi, Telangana 502284, India. Hyderabad -----

(57) Abstract :

The present disclosure relates to a method for performing a tailored thermal control and providing support to a non-planar substrate/component in a metal additive manufacturing during a non-planar deposition using a reconfigurable support. The method includes discretizing the non-planar substrate in a plurality of zones with a plurality of thermal conditions. The method includes identifying at least one zone from the plurality of zones with adverse thermal gradients over the non-planar substrate by regulating local thermal conditions of the non-planar substrate. The method includes determining a sequence of activation of at least one reconfigurable pin amongst a plurality of reconfigurable pins of the reconfigurable support based on a deposition path and a location of the at least one zone with the adverse thermal gradients. The method includes mounting the non-planar substrate over the reconfigurable setup. The method further includes depositing a material on the non-planar substrate supported by the at least one reconfigurable pin to obtain a desired geometry. Figure 3.

No. of Pages : 46 No. of Claims : 9

(54) Title of the invention : A BATTERY HOLDER

(51) International classification :H01M0050200000, H01L0021683000, H01M0050543000, H01M0010056700, H01L0023310000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
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(57) Abstract :

ABSTRACT A BATTERY HOLDER A battery holder 100 is described. In one example, the battery holder 100 may include a negative terminal 102 and a positive terminal 104 in a longitudinally opposite direction from the negative terminal 102. The negative terminal 102 may include a top surface 202 and a plurality of non-abutting and adjacent contact leads 204 extending linearly from the top surface 202. Each of the contact leads 204 are to contact an anode surface of a battery 208 at a point which is offset from the center of 10 the anode surface and form a gap between the anode surface and the top surface 202. Further, the positive terminal 104 may include a protrusion 206, wherein the protrusion 206 is to contact a cathode surface of the battery 208.

No. of Pages : 20 No. of Claims : 13

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001710 A

(19) INDIA

(22) Date of filing of Application :09/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : WIRELESS CHARGING INFRASTRUCTURE FOR ELECTRIC VEHICLES WITH ENHANCED SAFETY FEATURES

(51) International classification :B60L53/12, B60L53/122, H02J50/10, H02J50/70, H02J7/00
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
WIRELESS CHARGING INFRASTRUCTURE FOR ELECTRIC VEHICLES WITH ENHANCED SAFETY FEATURES ABSTRACT In the usual sense, electric vehicle systems are made up of a number of different modules that work together to provide the vehicle with the tremendous power and stability it needs to navigate the road. Primarily connected to these components is the mechanism that is responsible for charging. In order to alleviate worries regarding the range of electric vehicles while simultaneously lowering the costs associated with onboard batteries, dynamic wireless power transfer has emerged as a potential solution that can be used. The intention behind the use of wireless charging in pure electric vehicles has been to make it possible to charge the vehicle while it is in motion, a feature that has gained widespread acceptance. The invention of this method is difficult because of the complex operational philosophy that it adheres to, which is further complicated by the presence of a large number of variables and parameters. The purpose of this invention is to outline a novel approach that can be utilized to enhance the performance of a dynamic wireless recharging system. Receiver coils are incorporated into the proposed system in order to optimize charging power. These coils provide a dynamic mathematical model that is able to describe and monitor power transmission from the source to the vehicle while the vehicle is in motion.

No. of Pages : 13 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001711 A

(19) INDIA

(22) Date of filing of Application :09/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AUTOMATED AI BASED SHARE MARKET FINANCIAL FLUX AND PRICE PREDICTION SYSTEM

(51) International classification :G06Q0040040000, G06Q0040060000, G06N0020000000, G06N0003040000, G06Q0030020000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
AUTOMATED AI BASED SHARE MARKET FINANCIAL FLUX AND PRICE PREDICTION SYSTEM ABSTRACT The Automated AI-Based Share Market Financial Flux and Price Prediction System presented in this invention leverage advanced artificial intelligence (AI) techniques to analyze financial data and predict stock prices. With the increasing complexity and volatility of financial markets, traditional methods of analysis often fall short in providing accurate and timely predictions. This invention addresses these challenges by employing machine learning algorithms, neural networks, and data analytics to extract meaningful patterns from historical and real-time market data. The system begins by collecting extensive financial data, including historical stock prices, trading volumes, and relevant economic indicators. This dataset serves as the foundation for training and fine-tuning the machine learning models. Various algorithms, such as Long Short-Term Memory (LSTM) networks, support vector machines, and ensemble methods, are implemented to capture complex relationships within the data. The Automated AI-Based Share Market Financial Flux and Price Prediction System aims to empower investors with timely and accurate insights, helping them make informed decisions in an ever-changing financial landscape. Continuous refinement and adaptation of the system will be crucial to maintaining its effectiveness in dynamic market conditions.

No. of Pages : 13 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001722 A

(19) INDIA

(22) Date of filing of Application :09/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SMART SYSTEM FOR EARLY IDENTIFICATION OF DISEASES & PESTS IN CROP

(51) International classification :G06T0007110000, G06Q0050020000, G06T0007000000, A01N0037460000, A01M0001100000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT: Identification of the plant pests and weeds is the key role to preventing the losses in the yield and quantity of the agricultural product. The studies of the plant diseases mean the studies of visually observable patterns seen on the plant. Pests monitoring and Weed detection on plant is very critical for sustainable agriculture. It is very difficult to monitor the plant manually. It requires tremendous amount of work, expertise in the plant diseases, and also require the excessive processing time. Hence, image processing is used for the detection of plant diseases. Disease detection involves the steps like image acquisition, image pre-processing, image segmentation, feature extraction and classification. Several Integrated Pest Management strategies have been tailored for the effective management of insect pests under field condition. But, a prime method to protect the crop may be the regular monitoring of the crop for the occurrence of the insect pests to understand the health of the crop. Early detection of insect pest infestation to evolve suitable management techniques, therefore, would be an important step towards successful implementation of pest control strategies at appropriate time targeting the most vulnerable stage of the insect pest. This paper presents an algorithm for image segmentation technique which is used for automatic detection and classification of plant leaf diseases.

No. of Pages : 7 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :09/01/2024

(21) Application No.202441001734 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : INNOVATION OF BUSINESS MODELS THROUGH THE APPLICATION OF DESIGN THINKING

(51) International classification :G06Q0010060000, G06Q0010100000, G06F0008200000, G06Q0030020000, B33Y0050000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
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(57) Abstract :

The present invention introduces a systematic and innovative methodology for evolving business models through the strategic application of design thinking principles. Rooted in the recognition of the limitations of traditional approaches to business model development, the invention incorporates empathetic stakeholder understanding, collaborative ideation, rapid prototyping, and iterative testing. By fusing design thinking into each phase of the process, from initial stakeholder empathy to final business model validation, the invention provides a comprehensive framework for creating adaptive, customer-centric, and resilient business models. This approach empowers organizations to navigate dynamic market conditions, fostering a culture of continuous innovation and ensuring sustained relevance in an ever-changing business landscape.

No. of Pages : 18 No. of Claims : 6

(54) Title of the invention : SEMANTIC ANALYSIS FRAMEWORK FOR AUTOMATED ASSESSMENT OF ENGLISH LITERATURE COMPREHENSION

(51) International classification :G06F0040300000, G09B0005060000, G09B0019060000, G06Q0050200000, G09B0005020000

(86) International Application No :NA

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(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

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(57) Abstract :
The Semantic Analysis Framework for Automated Assessment of English Literature Comprehension represents a transformative advancement in education technology. Employing cutting-edge natural language processing and contextual understanding, the framework offers an objective, nuanced, and adaptive approach to evaluating readers' comprehension of English literature. Through modules for text preprocessing, semantic analysis, and contextual understanding, coupled with an interactive learning component and seamless integration with e-learning platforms, the invention not only automates the assessment process but also enhances the learning experience. This comprehensive framework transcends traditional grading methods, providing instantaneous feedback, personalized learning modules, and insightful analytics, thus contributing to the evolution of education technology and fostering improved English literature comprehension in learners of diverse levels and backgrounds.

No. of Pages : 17 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :10/01/2024

(21) Application No.202441001753 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD BASED ON MACHINE LEARNING TO VALIDATE STEM CELLS AND THEIR DERIVATIVES FOR USE IN CELL THERAPY AND TISSUE ENGINEERED PRODUCTS

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(51) International classification	:G06N0020000000, G06N0003080000, G06N0020200000, G11C0011560000, G06N0020100000	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
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(62) Divisional to Application Number	:NA	
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(57) Abstract :

A method is provided for non-invasively predicting characteristics of one or more cells and cell derivatives. The method includes training a machine learning model using at least one of a plurality of training cell images representing a plurality of cells and data identifying characteristics for the plurality of cells. The method further includes receiving at least one test cell image representing at least one test cell being evaluated, the at least one test cell image being acquired non-invasively and based on absorbance as an absolute measure of light, and providing the at least one test cell image to the trained machine learning model. Using machine learning based on the trained machine learning model, characteristics of the at least one test cell are predicted. The method further includes generating, by the trained machine learning model, release criteria for clinical preparations of cells based on the predicted characteristics of the at least one test cell.

No. of Pages : 9 No. of Claims : 5

(54) Title of the invention : DETECTION OF LUNG NODULES BY UTILIZING CNN APPROACH WITH TRANSFER LEARNING TECHNIQUE BASED ON CT IMAGES

(51) International classification (86) International Application No (87) International Publication No (61) Patent of Addition to Application Number (62) Divisional to Application Number :G06N0003080000, G06N0003040000, G06T0007000000, G16H0050200000, G06K0009620000 :NA :NA : NA :NA :NA :NA	(71)Name of Applicant : 1)Ashokkumar Sundaramma puttamadiah Address of Applicant :288, ISRO Layout ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Malatesh S Havanur Address of Applicant :Professor and HOD, Department of Computer Science and Engineering , M S ENGINEERING COLLEGE Bengaluru Bengaluru ----- 2)Prof. Gayathri V Address of Applicant :Assistant Professor Department of Computer Science, Nrupathunga University, Nt road Bengaluru Bengaluru ----- 3)Dr. Manjunath C R Address of Applicant :Professor Department of Computer Science and Engineering, School of engineering and technology, CMR UNIVERSITY Bengaluru Bengaluru ----- 4)Prof. Lakshmid devi H M Address of Applicant :Assistant Professor Department of Computer Science and Engineering, RR Institute of Technology, Bengaluru Bengaluru ----- 5)Dr Prakasha P K Address of Applicant :Professor, Department of AIML, Rajarajeswari College of Engineering , Kumbala godu, Bangalore Bengaluru ----- 6)Dr Ashok Kumar P S Address of Applicant :Professor, Department of Computer Science and Engineering , ACS College of Engineering Bengaluru Bengaluru ----- 7)Dr. Krishna Prasad K Address of Applicant :Professor and HOD, Department of Cyber Security and Cyber Forensics, Srinivasa Institute of Engineering and Technology, Srinivasa University, Mangalore - 574146 Magalore ----- 8)Dr. Sreenivasa Gowda Address of Applicant :Professor, Department of Computer Science and Engineering , ACS College of Engineering, Bengaluru Bengaluru ----- 9)Prof. Krishnamurthy H Address of Applicant :Assistant Professor, Department of Computer Science and Engineering , RVITM, Bengaluru Bengaluru ----- 10)Dr. Thirthe Gowda M Address of Applicant :Assistant Professor, Department of Computer Science and Engineering , Govt. College of Engineering, Hassan Hassan -----

(57) Abstract :
This invention relates to an innovative method for identifying lung nodules in two-dimensional computer images. Obtain tomography (CT) images by utilizing a convolutional neural network (CNN) utilizing transfer learning. The approach entails employing deep learning techniques to automate the process of identifying and pinpointing the location of lung nodules, thus enabling prompt detection and medical treatment in instances of lung cancer. By utilizing transfer learning, a convolutional neural network (CNN) that has been pre-trained The model is specifically designed to analyze CT images and extract complex features that are indicative of lung nodules. The resultant system offers a sophisticated and effective method of identifying potential Malignancies, offering substantial potential for enhancing patient outcomes and optimizing efficiency. The process of diagnosis. This novel approach represents a significant progress in the field of medical imaging and computer-aided diagnosis has the potential to bring about a revolutionary change. Early identification and management of lung cancer.

No. of Pages : 13 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001756 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : UNIQUE PRIMER SEQUENCES FOR THE DETECTION OF SHIGELLA SPP BY LOOP-MEDIATED ISOTHERMAL AMPLIFICATION (LAMP)

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(51) International classification	:C12Q0001684400, C12Q0001689000, A61K0039112000, A61P0031040000, C12Q0001680600	(72)Name of Inventor : 1)Mr Ashwath Nayak Address of Applicant :Nitte University Center for Science Education and Research Nitte University, Paneer Campus Deralakatte Mangalore - 575018 Mangalore ----- 2)Dr. Rajeshwari Vittal Address of Applicant :Nitte University Center for Science Education and Research Nitte University, Paneer Campus Deralakatte Mangalore - 575018 Mangalore ----- 3)Dr. Gunimala Chakraborty Address of Applicant :Nitte University Center for Science Education and Research Nitte University, Paneer Campus Deralakatte Mangalore - 575018 Mangalore ----- 4)Dr. Anirban Chakraborty Address of Applicant :Nitte University Center for Science Education and Research Nitte University, Paneer Campus Deralakatte Mangalore - 575018 Mangalore -----
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

Shigella spp. is a major food-borne pathogen that causes Shigellosis with bloody diarrhea. Shigellosis is an indication of poor sanitation and non-hygienic food handling. Rapid and specific detection of this pathogen is very important to overcome these food-borne illnesses. A detection method that uses an isothermal condition to detect the pathogens using four different primers, known as Loop-Mediated Isothermal Amplification, is used in this study. The parameters of the assay such as time and temperatures, are optimized for the target gene ipaH, which is unique for three Shigella spp, S. boydii, S. sonnei and S. flexneri. The temperature for detection of these pathogens is found to be 650C and time was optimized for 60 minutes. The specificity of the reaction was carried out by amplifying the DNA of the species which belongs to the family of Enterobacteriaceae at 650C for 60 minutes. The primers were found to be specific only for Shigella species. Based on the optimization parameters, 30 seafood samples were screened using LAMP method, the results showed that all the samples were free from the potential pathogen.

No. of Pages : 12 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :10/01/2024

(21) Application No.202441001763 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : INNOVATIVE SECURE COMMUNICATION IN SMART HOMES: INTEGRATING BLOCKCHAIN AND MACHINE LEARNING TECHNOLOGIES

(51) International classification :G06N0020000000, G08B0019000000, G06F0016270000, G06Q0020400000, H04L0009080000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)B.Renukadevi Address of Applicant :Assistant Professor, IT, Sri Sai Ram Engineering College, West Tambaram, Chennai, Tamilnadu, India. ----- 2)Dr.Anuradha.R.Kondelwar 3)Dr.Mrs.Nita .M.Thakare 4)E. Anbalagan 5)Milind 6)Kamal Raj 7)Mr.Pritam Ramesh Ahire 8)Prof.Rohini Hanchate 9)Amandeep Noliya 10)Nanmaran R Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)B.Renukadevi Address of Applicant :Assistant Professor, IT, Sri Sai Ram Engineering College, West Tambaram, Chennai, Tamilnadu, India. ----- 2)Dr.Anuradha.R.Kondelwar Address of Applicant :Assistant Professor, Electronics and Telecommunication, Priyadarshini College of Engineering, Nagpur, Near CRPF, Hingna Road, Nagpur, Maharashtra-440019, India. ----- 3)Dr.Mrs.Nita .M.Thakare Address of Applicant :Associate Professor, Computer Technology Priyadarshini College of Engineering, Nagpur, Near CRPF, Hingna Road, Nagpur, Maharashtra-440019, India. ----- 4)E. Anbalagan Address of Applicant :Professor / Computer science and Engineering, Saveetha School of Engineering, Saveetha Institute of Medical and Technical Sciences, Kanchipuram, Chennai, Tamilnadu, India. ----- 5)Milind Address of Applicant :Asst. Professor, Department of Computer Science Engineering SCRIET, CCS University Meerut, Uttar Pradesh, India. ----- 6)Kamal Raj Address of Applicant :Associate Professor /CSE Rajarajeswari College Of Engineering, Bangalore, Karnataka, India. ----- 7)Mr.Pritam Ramesh Ahire Address of Applicant :Assistant Professor / Computer Engineering, Nutan Maharashtra Institute of Engineering & Technology Talegaon, Maharashtra, India. ----- 8)Prof.Rohini Hanchate Address of Applicant :Assistant Professor / Computer Engineering, Nutan Maharashtra Institute of Engineering & Technology Talegaon, Maharashtra, India. ----- 9)Amandeep Noliya Address of Applicant :Assistant Professor, Artificial Intelligence and Data Science, Guru Jambheshwar University of science & Technology, Hisar, Haryana, India. ----- 10)Nanmaran R Address of Applicant :Department of Electronics and Communication Engineering, Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai, Tamilnadu, India. -----

(57) Abstract :
INNOVATIVE SECURE COMMUNICATION IN SMART HOMES: INTEGRATING BLOCKCHAIN AND MACHINE LEARNING TECHNOLOGIES A method for the development of this specification, in particular, relates to a group of devices, including intelligent, multi-sensing, network-connected devices, that communicate with one another and/or with a central server or a cloud-computing system to achieve any of a number of useful home security/smart home goals. The system may carry out one or more execution operations based on the interpretation of one or more input signals. The execution procedures may comprise configuring one or more controlled systems linked to the computing system. On the blockchain, there is a service end blockchain node.; The approach consists of the following steps: a business end blockchain node builds a matching transaction data structure for a target business, then integrates business data to be processed using the transaction data structure to generate shared business data. FIG.1

No. of Pages : 15 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :10/01/2024

(21) Application No.202441001764 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : ENHANCED COMMUNICATION AMONG HEARING IMPAIRED THROUGH GESTURE AND FACIAL EXPRESSION ON 3D AVATAR

(51) International classification :G06T0013400000, G09B0021000000, G10L0021060000, G06F0003010000, G06N0003080000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
ENHANCED COMMUNICATION AMONG HEARING IMPAIRED THROUGH GESTURES AND FACIAL EXPRESSIONS ON 3D AVATAR Being able to express our thoughts, feelings, and ideas to one another is essential for human survival and development. The family of hearing-impaired members often have difficulty communicating with them and need to interact with them using sign language. Their family still face many challenges in learning sign language despite technological advance. If the person is bedridden and hearing impaired, communication with the caretaker becomes a challenging task. Visual interpretation of gestures and speech along with facial expressions can be useful in accomplishing human-like interaction. The concept of an avatar emerges as a digital representation of a user's presence in a virtual reality space, capable of interacting with a computer-generated environment or other users. By using avatars, hearing-impaired individuals can better understand the tone and intent of the communication, allowing them to respond appropriately and enabling them to have an inclusive social life. The proposed system facilitates a generation of facial animation of emotions along with gestures on a 3D avatar input speech given by a normal person. Deep Learning is used to estimate the facial expression and gestures from the input text. These resultant gestures and facial expressions are represented through animations to the hearing impaired through a 3D Avatar. FIG. 1

No. of Pages : 20 No. of Claims : 1

(54) Title of the invention : GESTURE GENIE: EXPRESSION ANALYZING AVATAR BASED GESTURE TO SPEECH INTERPRETER

		(71)Name of Applicant : 1)G.Narayanamma Institute of Technology and Science(Autonomous)(for Women) Address of Applicant :Shaikpet, Hyderabad-500104, Telangana, India. ----- 2)Dr. P. Sunitha Devi 3)Mrs. R. Mamatha 4)Mr B Vamshi 5)Mr Nagababu Garigipati 6)Ms. M. Naga Sai Priya Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. P. Sunitha Devi Address of Applicant :G.Narayanamma Institute of Technology and Science(Autonomous)(for Women) Shaikpet, Hyderabad-500104, Telangana, India. ----- 2)Mrs. R. Mamatha Address of Applicant :G.Narayanamma Institute of Technology and Science(Autonomous)(for Women) Shaikpet, Hyderabad-500104, Telangana, India. ----- 3)Mr B Vamshi Address of Applicant :G.Narayanamma Institute of Technology and Science(Autonomous)(for Women) Shaikpet, Hyderabad-500104, Telangana, India. ----- 4)Mr Nagababu Garigipati Address of Applicant :G.Narayanamma Institute of Technology and Science(Autonomous)(for Women) Shaikpet, Hyderabad-500104, Telangana, India. ----- 5)Ms. M. Naga Sai Priya Address of Applicant :G.Narayanamma Institute of Technology and Science(Autonomous)(for Women) Shaikpet, Hyderabad-500104, Telangana, India. ----- 6)Ms.Y. Venkata Satya Sarika Address of Applicant :G.Narayanamma Institute of Technology and Science(Autonomous)(for Women) Shaikpet, Hyderabad-500104, Telangana, India. ----- 7)Ms. Dabbugunta Veena Address of Applicant :G.Narayanamma Institute of Technology and Science (for Women), Shaikpet, Hyderabad-500104, Telangana, India. ----- 8)Ms. Kummetha Sreeya Address of Applicant :G.Narayanamma Institute of Technology and Science(Autonomous)(for Women) Shaikpet, Hyderabad-500104, Telangana, India. ----- 9)Ms. Kavuri Sri Eesha Address of Applicant :G.Narayanamma Institute of Technology and Science(Autonomous)(for Women) Shaikpet, Hyderabad-500104, Telangana, India. -----
(51) International classification	:G10L0015220000, G06T0013400000, G09B0021000000, G06F0003160000, G06F0003010000	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
GESTURE GENIE: EXPRESSION ANALYZING AVATAR BASED GESTURE TO SPEECH INTERPRETER Effective communication is an essential aspect of modern society, playing a critical role in our daily lives, but those with hearing or speech impairments face significant challenges in expressing themselves, leading to social isolation and reduced access to opportunities. The system is specifically designed to bridge the communication gap between those who primarily rely on gestures to communicate, including non-verbal individuals, and those who use speech as their primary mode of expression. Current tools lack the ability to convey emotions and personal feelings of an individual, making them appear rigid and not have the same level of humanity as talking to another human being. The primary objective of this project is to create an avatar that can interpret human gestures and convert them into speech. To achieve this, the project specifically focuses on utilizing computer vision and natural language processing (NLP) to translate gestures into speech. The user inputs gestures, which are then translated into text and spoken by an animated avatar. FIG.1

No. of Pages : 20 No. of Claims : 1

(54) Title of the invention : INCLUSIV, THINKING BEYOND BARRIERS REDEFINING ACCESSIBILITY STANDARDS IN INDIA

(51) International classification	:G09B0021000000, G06Q0010060000, G06Q0010100000, G06F0009451000, G06Q0050260000	(71)Name of Applicant : 1)Dr. Veena Shenoy Address of Applicant :Founder SuGyan Research and Consultancy LLP, Flat No 208 2nd Floor B Block T G Epitome, Chikkanagamangala Village, Rayasandra Lake Huskur Na Bangalore Karnataka- 560099 ----- 2)Dr. Angela David 3)Mr. Srikanth Shenoy Name of Applicant : NA Address of Applicant : NA
(86) International Application No	:NA	(72)Name of Inventor :
Filing Date	:NA	1)Dr. Veena Shenoy Address of Applicant :Founder SuGyan Research and Consultancy LLP, Flat No 208 2nd Floor B Block T G Epitome, Chikkanagamangala Village, Rayasandra Lake Huskur Na Bangalore Karnataka- 560099 -----
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(61) Patent of Addition to Application Number	:NA	3)Mr. Srikanth Shenoy Address of Applicant :Co-founder, SuGyan Research and Consultancy LLP, Flat No 208 2nd Floor B Block T G Epitome, Chikkanagamangala Village, Rayasandra Lake Huskur Na Bangalore Karnataka 560099 -----
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
The present invention relates to a inclusiv, thinking beyond barriers redefining accessibility standards in india. The inclusiv, thinking beyond barriers redefining accessibility standards in india comprises of comprehensive module, user-centric module, technological integration, collaborative platform and an actionable strategy. The comprehensive module for assessing infrastructural deficiencies, societal barriers, financial constraints, and legislative-practical disparities in architectural accessibility. The user-centric module engaging individuals with accessibility challenges to gather diverse insights and create tailored solutions. The technological integration utilizing advancements in architecture and assistive tools to bridge accessibility gaps. The collaborative platform uniting architects, policymakers, individuals with disabilities, and experts for collective engagement. The actionable strategy synthesizing assessment, user-centric inputs, technology, and collaboration to ensure universally accessible architectural spaces.

No. of Pages : 12 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001781 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : GEOPOLYMER WITH THERMAL INSULATION INCORPORATING RUBBERIZED GGBS AND GLASS POWDER

(51) International classification		:C04B12/00, C04B14/04, C04B14/22, C04B18/08, C04B22/06, C04B28/08, C04B28/26, C04B38/02	(71)Name of Applicant : 1)Pawar Praveen Address of Applicant :KL Deemed to be University ----- - ----- 2)2. KONERU LAKSHMAIAH EDUCATION FOUNDATION 3)SUPRIYA JANGA Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)SUPRIYA JANGA Address of Applicant :Research Scholar, DEPARTMENT OF CIVIL ENGINEERING, GREEN FIELDS, VADDESWAREM, GUNTUR DISTRICT, ANDHRA PRADESH, GUNTUR ----- ----- 2)Dr. Ashwin Raut Address of Applicant :Associate Professor, Department of Civil Engineering Green Fields, Vaddeswaram, Guntur district, Andhra Pradesh, GUNTUR -----
(86) International Application No	:NA		
Filing Date	:NA		
(87) International Publication No	: NA		
(61) Patent of Addition to Application Number	:NA		
Filing Date	:NA		
(62) Divisional to Application Number	:NA		
Filing Date	:NA		

(57) Abstract :

The concept driving the creation of geopolymers-based blocks aims to offer an eco-friendly alternative to traditional masonry blocks by incorporating rubber crumbs for thermal insulation. These blocks stand out due to the fusion of glass powder, ground granulated blast furnace slag (GGBS), and crumb rubber in their composition, forming a geopolymer matrix. Notably, these blocks eschew cement as a binder, yet excel in thermal insulation with lower conductivity compared to conventional blocks. This innovation presents an energy-efficient solution for buildings, diminishing the overall energy demands of the structure.

No. of Pages : 14 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :09/01/2024

(21) Application No.202441001784 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : ARTIFICIAL INTELLIGENCE BASED ENSEMBLE MODELLING OF WASTE WATER TREATMENT PLANT

(51) International classification :C02F0003300000, C02F0003120000, G06N0003040000, C02F0003000000, C02F0003280000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Satish S Bhairannawar Address of Applicant :Professor & Dean III – Industry Institute Interface Dept. of ECE SDM College of Engineering & Technology, Kalaghatagi Road ----- 2)Principal Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Keshava Joshi Address of Applicant :Department of Chemical Engineering, SDM College of Engineering and Technology Dharwad ----- 2)Dr. Lokeshwari Navalgund Address of Applicant :Department of Chemical Engineering, SDM College of Engineering and Technology Dharwad ----- 3)Ms. Shambhavi S Vyas Address of Applicant :Department of Chemical Engineering, SDM College of Engineering and Technology Dharwad ----- 4)Ms. Vaishnavi V Address of Applicant :Department of Chemical Engineering, SDM College of Engineering and Technology Dharwad ----- 5)Akash B Address of Applicant :Department of Chemical Engineering, SDM College of Engineering and Technology Dharwad -----

(57) Abstract :

ABSTRACT The complexity of biological wastewater treatment processes, is always challenging issue to respond promptly and appropriately to the dynamic process conditions to ensure the quality of the effluent, especially when operational cost is a major concern. Biological treatment was carried out in series of SBR with Polypropylene as media instead of conventional media which acted as a cost saving factor. The current work focuses on ANN (Artificial neural networks), an AI and ML model to assess and predict the effluent quality of wastewater treated with biological processes in aerobic and anaerobic environments. The influent variables like pH, BOD, COD, TN are used as input variables during modelling. The input variables used for modelling are the daily time series data obtained during biological treatment process experiments. The ML model is used to inter-relate different input and output parameters to predict effluent quality. This study suggests an effective non-linear modelling method for an early prediction of water quality. The results obtained could support the development of more advanced control strategies to increase control precision and reduce running costs in wastewater treatment plants.

No. of Pages : 6 No. of Claims : 1

(54) Title of the invention : A SMART REVIVAL DEVICE FOR PLANTAR FASCIITIS AND POSTERIOR FASCIAL MUSCLE STRENGTHENING

(51) International classification :A61F5/01, A63B21/00 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Dr. Chandramohan R. Address of Applicant :S/o. S Ramasamy, Assistant Professor, Department of Physiotherapy, School of Health Sciences, Garden City University, 16th KM, Old Madras Road, Bangalore - 560049, Karnataka, India. Bengaluru ----- 2)Dr. Annie Thomas 3)Ghurucharan R 4)Dr. Priyadharshini R. 5)Dr. Sumit Kumar Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Chandramohan R. Address of Applicant :S/o. S Ramasamy, Assistant Professor, Department of Physiotherapy, School of Health Sciences, Garden City University, 16th KM, Old Madras Road, Bangalore - 560049, Karnataka, India. Bengaluru ----- 2)Dr. Annie Thomas Address of Applicant :D/o. Thomas V. Mathew, Professor, Department of Physiotherapy, School of Health Sciences, Garden City University, 16th KM, Old Madras Road, Bangalore - 560049, Karnataka, India. Bengaluru ----- 3)Ghurucharan R Address of Applicant :S/o. G Ramu, Final Year - Undergraduate, Bachelor of Physiotherapy, Department of Physiotherapy, School of Health Sciences, Garden City University, 16th KM, Old Madras Road, Bangalore - 560049, Karnataka, India. Bengaluru ----- 4)Dr. Priyadharshini R. Address of Applicant :D/o. S Ramasamy, M. B. B. S., M. D., Pharmacology Postgraduate, Department of Pharmacology, Government Kilpauk Medical College, Chennai – 600010, Tamil Nadu, India. Chennai ----- 5)Dr. Sumit Kumar Address of Applicant :Assistant Professor, Department of Management, School of Commerce and Management, Garden City University, 16th KM, Old Madras Road, Bangalore - 560049, Karnataka, India. Bengaluru -----

(57) Abstract :
The present invention is a groundbreaking biomedical wearable designed to alleviate the pain associated with plantar fasciitis while simultaneously targeting and strengthening the posterior fascial line muscles through kinetic chain activation. This innovative device features a flexible and breathable base that conforms to the plantar surface, integrating strategically placed pressure points to address specific pain regions. Equipped with a sensor array and a microcontroller, the device detects foot movement and pressure distribution, enabling personalized therapeutic responses. An adjustable strap mechanism ensures a secure fit, allowing users to customize the device for individual comfort and support. Additionally, the device incorporates a wireless communication module for connectivity with external devices, facilitating remote monitoring, data analysis, and updates to optimize pain relief and muscle strengthening programs. The device offers a comprehensive and holistic approach to musculoskeletal health, presenting a new frontier in the treatment of plantar fasciitis and associated conditions.

No. of Pages : 20 No. of Claims : 5

(54) Title of the invention : ADAPTIVE SENSORY-BLANKET FOR AUTISM TAILORED TACTILE SOLUTIONS IN CHILDREN WITH SPECTRUM DISORDER

(51) International classification :A47G 9/00, D03D 1/00, G06F 3/01, G08B 6/00, G16H 20/70 (86) International Application No:NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr. Prasanna Mohan Address of Applicant :S/o. J Mohan, Professor, School of Health sciences, Department of Physiotherapy, Garden City University, 16th KM, Old Madras Road, Bangalore - 560049, Karnataka, India. Bengaluru ----- 2)Katikitala Prasanth Kumar 3)Dr. S. Senthilkumar 4)Dr. Anjali Suresh 5)Dr. Natasha Verma Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Prasanna Mohan Address of Applicant :S/o. J Mohan, Professor, School of Health sciences, Department of Physiotherapy, Garden City University, 16th KM, Old Madras Road, Bangalore - 560049, Karnataka, India. Bengaluru ----- 2)Katikitala Prasanth Kumar Address of Applicant :S/o. K Raja Rao, II Year - Postgraduate, School of Health Sciences, Department of Physiotherapy, Garden City University, 16th KM, Old Madras Road, Bangalore - 560049, Karnataka, India. Bengaluru ----- 3)Dr. S. Senthilkumar Address of Applicant :S/o. R. Subramanian, Professor, School of Health Sciences, Department of Physiotherapy, Garden City University, 16th KM, Old Madras Road, Bangalore - 560049, Karnataka, India. Bengaluru ----- 4)Dr. Anjali Suresh Address of Applicant :D/o. R Devadath, Head & Professor, School of Health Sciences, Department of Physiotherapy, Garden City University, 16th KM, Old Madras Road, Bangalore - 560049, Karnataka, India. Bengaluru ----- 5)Dr. Natasha Verma Address of Applicant :D/o. A. K. Verma, Assistant Professor, School of Health Sciences, Department of Physiotherapy, Garden City University, 16th KM, Old Madras Road, Bangalore - 560049, Karnataka, India. Bengaluru -----

(57) Abstract :
The present invention pertains to an Adaptive Sensory-Responsive Blanket designed to address the prevalent tactile abnormalities observed in children diagnosed with Autism Spectrum Disorder (ASD). ASD is a neurodevelopmental disorder characterized by challenges in social interaction, communication deficits, and repetitive sensory-motor behaviors. Notably, approximately 95% of individuals with ASD exhibit sensory abnormalities, with tactile sensitivity alterations being reported in 60% of cases. The disclosed blanket integrates advanced technology, including a tactile stimulation module and a network of sensors, to provide personalized and adaptive tactile input in response to the unique sensory needs of each user. The innovative design allows for customization through a user interface, empowering individuals or caregivers to tailor the sensory experience. This invention represents a significant advancement in addressing the sensory challenges faced by individuals with ASD, offering a tool to enhance comfort, reduce stress, and potentially improve overall well-being.

No. of Pages : 20 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001800 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : OBJECT DETECTION BASED SMART STICK FOR HEARING AND VISUALLY IMPAIRED PERSONS

(51) International classification	:A61H0003060000, G09B0021000000, G01S0015930000, A61F0009080000, G05D0001020000	(71)Name of Applicant : 1)Ms.P.SEVANTHI Address of Applicant :S.A. Engineering College, Veeraragavapuram, Chennai-77. -----
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(57) Abstract :

The main aim is to propose a walking stick for the visually impaired and hearing impaired persons for safe navigation. This stick is introduced to deaf blind people as a mobility tool to detect the obstacles in the path of the user. This proposed system is implemented using an Arduino UNO based obstacle finding stick for deaf-blind people, which helps a person by detecting the obstacles using Ultrasonic sensors and pixy cam device. It is able to inform the blind person about the path to navigate to their destination. The main objective of this paper is to help a deaf-blind people to move more freely by using a reliable stick independently. The device consists of ARDUINO UNO, HC SR-04 ultrasonic sensor, HC-05 Bluetooth module, pixy camera, and a 9V Lipo battery as the power source.

No. of Pages : 11 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :10/01/2024

(21) Application No.202441001801 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : POLYCYSTIC OVARIAN SYNDROME DETECTION USING CNN

(51) International classification :A61B0008080000, A61B0008000000, G06K0009620000, A61P0015080000, G16H0050200000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
ABSTRACT POLYCYSTIC OVARIAN SYNDROME DETECTION USING CNN Polycystic Ovarian Syndrome (PCOS) is a female endocrine disease that severely affects the health of women and requires medication or even surgery to diagnose it. It is very important, for this cause, to correctly diagnose PCOS. Ultrasound imaging of the ovary's follicles provides crucial details about the ovary, such as the type of cyst, the large range of follicles, and the size of the follicles. Image processing accurately recognizes the above aspects and differentiate its backdrop from the image and offers extra information about the region of interest in the image. However, since segmentation on ultrasound images is difficult owing to noise, identification of follicles can be made simple and efficient by combining photo preprocessing with morphological operations which is an image processing operation that processes images based on shapes. Machine learning algorithms SVM, KNN, CNN, and Logistic Regression are utilized for classification while taking into account all the characteristics of PCOS ovaries and Normal ovaries. The results obtained through the classification are compared through physical identification. The proposed system works on CNN in order to increase accuracy and obtain best results. FIG.1

No. of Pages : 14 No. of Claims : 1

(54) Title of the invention : SINGLE PHASE ARC FURNACE MODEL & POWER QUALITY IMPROVEMENT USING DSTATCOM

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	:C21C5/52, H02J3/01, H02M1/00, H02M1/12, H05B3/62, H05B7/00, H05B7/148, H05B7/18 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)Principal Address of Applicant :Chennai institute of Technology, Chennai – 600069 Chennai ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)M.EZHILMARAN Address of Applicant :Chennai institute of Technology, Chennai – 600069 ----- 2)R.SANKAR Address of Applicant :Chennai institute of Technology, Chennai – 600069 ----- 3)K. KIRUBASANKAR Address of Applicant :Chennai institute of Technology, Chennai – 600069 -----

(57) Abstract :
In order to improve power quality in industrial settings, the current invention describes a novel integration of a DSTATCOM (Distribution Static Synchronous Compensator) system with a Single Phase Arc Furnace Model. To enable optimal melting processes, the Single Phase Arc Furnace Model integrates cutting-edge design elements for effective and regulated arc furnace operations. The goal of the DSTATCOM system integration is to reduce reactive power imbalances, harmonic distortions, and voltage variations that are related to arc furnace power quality. The innovation offers a comprehensive method that ensures increased power factor, reduced voltage fluctuations, and improved system stability by integrating the modeling of single-phase arc furnaces with the application of DSTATCOM technology. The DSTATCOM system's integrated control techniques synchronize with the arc furnace's dynamic requirements, ensuring seamless operation and reliable power quality enhancement.

No. of Pages : 10 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :10/01/2024

(21) Application No.202441001810 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : BERBERINE-METAL COMPLEXES AS PROMISING ANTIBACTERIAL AND ANTIFUNGAL AGENTS TO FIGHT DRUG RESISTANCE

(51) International classification :A61K31/4375, A61P31/04, B01J31/22, C07D455/03, C07F1/08, C07F15/02, C07F15/04, C07F15/06
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
ABSTRACT In this research, a series of experiments was conducted, involved the synthesis and characterization analysis of complexes formed between Berberine and various metals. These compounds were characterized using techniques such as IR, NMR, MASS, and P-XRD to evaluate their binding affinity. We also assessed their efficacy in inhibiting a range of microorganisms, including gram-negative bacteria (E. coli, P. aeruginosa), gram-positive bacteria (B. cereus, S. mutans), and a fungal organism (C. albicans), while determining their respective IC50 values. Furthermore, we performed docking experiments using ten synthesized compounds with a specific protein (PDB ID: 5C5H,7V67). Among these compounds, the Berberine-Cu Complex (b1) demonstrated the most favorable binding affinity with proteins 5C5H (associated to gram negative bacterial activity) and 7V67 (associated to antifungal activity), achieving scores of -9.0 kcal/mol and -9.9 kcal/mol, respectively. It is confirmed that this study will also serve as a valuable foundation for the development of novel antimicrobial medications.

No. of Pages : 21 No. of Claims : 1

(54) Title of the invention : EXPLORING THE HEALTH BENEFITS OF A POLYHERBAL-INFUSED BLUE TEA: AN INVESTIGATION INTO ANTIOXIDANT, ANTI-CANCER, ANTI-DIABETIC, AND ANTIMICROBIAL PROPERTIES

(51) International classification :A61P0003100000, A23L0033105000, A61K0036185000, A61K0036670000, A61P0035000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)YUWVARANNI.S Address of Applicant :St. JOSEPH'S COLLEGE OF ENGINEERING, OMR, CHENNAI, TAMIL NADU, INDIA-600119. --- ----- 2)Catherin Jeni J 3)Nathiya s 4)Dr. M. Chamundeeswari Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)YUWVARANNI.S Address of Applicant :St. JOSEPH'S COLLEGE OF ENGINEERING, OMR, CHENNAI, TAMIL NADU, INDIA-600119. ----- 2)Catherin Jeni J Address of Applicant :St. JOSEPH'S COLLEGE OF ENGINEERING, OMR, CHENNAI, TAMIL NADU, INDIA-600119. ----- 3)Nathiya s Address of Applicant :St. JOSEPH'S COLLEGE OF ENGINEERING, OMR, CHENNAI, TAMIL NADU, INDIA-600119. ----- 4)Dr. M. Chamundeeswari Address of Applicant :St. JOSEPH'S COLLEGE OF ENGINEERING, OMR, CHENNAI, TAMIL NADU, INDIA-600119. -----

(57) Abstract :

In today's world, the lifestyle of people and certain environmental factors such as radiation, pollution, etc generate free radicals in the body which in turn trigger several human diseases_ such as diabetes, heart disease, cancer, etc. Plant parts such as leaves, flowers, stems, roots, etc ' have several phytochemicals that have potential health benefits. This study looks into the multifaceted health benefits of a polyherbal-infused blue tea, comprised of Clitoria ternatea (flower), Cassia auriculata (flowers),- Hibiscus rom-Sinensis (flowers), and Piper betel (leaves) Extracts. In this investigation, we explored the antioxidant, anti-diabetic, anti-cancer, and antimicrobial properties of this unique polyherbal infusion. Phytochemical analysis indicates that all four herbs have phenolic and tannin compounds that have redox properties. The formulated. bluefia's ability to scavenge free radicals was determined by DPPH (1,1- diphenyl-Z-picryl-hydroxyl) assay. The findings highlight its notable (93% at 100 ug/ml) antioxidant capacity, making it a promising addition to dietary strategies for promoting overall health. MTT assay performed using the tea's anti-cancer propeniesroved its ability in controlling the growth of breast cancer cell line (MDAM231- at SOOpG/ml) suggesting this - polyherbal infusion may hold promise in cancer prevention during regular consumption on recommended dose basis. Investigates of tea's anti-diabetic properties'by Alpha-amylase inhibitory aésay demonstrated} its potential nature to regulate blood sugar levels at 80pg/ml, it has the potential nature to inhibit the enzyme by 91 %, offering a natural and complementary approach ih managing diabetes. The antimicrobial activity was tested against E. coli and Bacillus cerus and proved to be antimicrobial against Bacillus cerus (15mm) than E.Coli (4mm). This reSearch 'will contribute to the understanding of health benefits associated with this unique polyherbfil_—infused drink and may have practical! implications for the development of functional foods or supplements. Key Wofgjs: Diabetics, Cancer, Antimicrobial, Herbal drink

No. of Pages : 24 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001815 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SOCIO-COGNITIVE NEUROMORPHIC SYSTEM FOR RELIABLE GPS SPOOFING DETECTION IN DRONE NETWORKS

(51) International classification :G06N0003040000, G06N0003063000, B64C0039020000, G06N0003080000, G06N0020000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
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(57) Abstract :

Title: Socio-Cognitive Neuromorphic System for Reliable GPS Spoofing Detection in Drone Networks. The hybrid GPS spoofing detection system incorporates Neuromorphic Memristive Neural Networks (MNNs) and a Socio-Cognitive fuzzy system meticulously tailored for drone networks. The Socio-Cognitive fuzzy system evaluates drone behavior based on features such as ability, benevolence, and integrity, providing nuanced insights. Integrating this behavioral analysis with machine learning predictions significantly enhances the resilience of the system. By distinguishing intentional deviations from unexpected ones, the system becomes adept at responding to varied scenarios. Furthermore, the adaptability to fluctuations in the drone's operational state is improved through the correlation of drone behavior with predictions. FIG.1

No. of Pages : 18 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :10/01/2024

(21) Application No.202441001826 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : CLOSED LOOP PULSATING HEAT PIPES WITH BRINE SOLUTION TO ENHANCE THERMAL PERFORMANCE

(51) International classification :F28D0015020000, H05K0007200000, H01L0023427000, F28D0015040000, H01L0023473000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Advancement is taking place in electronic field of engineering and increasing the demand for of smaller and effective heat transfer devices. Several cooling methods are employed to cool the electronic devices. Pulsating heat pipe is a passive two-phase heat transfer device for handling moderate to high heat fluxes typically suited for power electronics and similar applications. It usually consists of a small diameter tube, closed end- to-end in a loop, evacuated and then partially filled with a working fluid. Heat transfer is through natural oscillations of the working fluid between the evaporator and condenser sections. In this idea, a Closed loop Pulsating heat pipe with Brine Solution as working fluid is used to increase thermal performance.

No. of Pages : 7 No. of Claims : 1

(54) Title of the invention : AI-BASED ONLINE ADMISSION SCREENING SYSTEM

(51) International classification	:G06N0020000000, G16H0050200000, G06Q0050200000, G06N0005040000, G06N0020200000	(71)Name of Applicant : 1)Dr P Munaswamy Address of Applicant :Professor and Head of Department, Department of Electronics and Communication Engineering Institute of Aeronautical Engineering Dundigal, Hyderabad-500043 Telangana, India p.munaswamy@iare.ac.in Hyderabad ----- 2)Sharanbasappa Shetkar 3)Sangeetha M K 4)Dr Shashikala Parameshwarappa Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr P Munaswamy Address of Applicant :Professor and Head of Department, Department of Electronics and Communication Engineering Institute of Aeronautical Engineering Dundigal, Hyderabad-500043 Telangana, India p.munaswamy@iare.ac.in Hyderabad ----- 2)Sharanbasappa Shetkar Address of Applicant :Professor Department of Electronics and Communication Engineering Lingaraj Appa Engineering College, Gornalli, Bidar - 585403, Karnataka, India. Bidar ----- 3)Sangeetha M K Address of Applicant :Lecturer of Civil engineering Vidhya vardhaka polytechnic, Gokulam 3rd stage Mysore -570002 Mysore ----- 4)Dr Shashikala Parameshwarappa Address of Applicant :Principal, Government engineering college Raichur-584135 Raichur -----
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
ABSTRACT [1] Our Invention AI-BASED ONLINE ADMISSION SCREENING SYSTEM has been claimed. In the rapidly evolving landscape of education, the traditional admission process is undergoing a transformative shift towards efficiency and objectivity through the integration of Artificial Intelligence (AI) technologies. This abstract introduces an AI-based online admission screening system designed to streamline and enhance the admission process for educational institutions. The proposed system leverages machine learning algorithms to analyze and evaluate admission applications, thereby reducing manual intervention and expediting decision-making. The core components of the system include data preprocessing, feature extraction, and a predictive model trained on historical admission data. The data preprocessing phase involves the cleaning and normalization of application data, ensuring consistency and reliability. Feature extraction techniques are applied to extract relevant information from application documents, transcripts, and other supporting materials. Natural Language Processing (NLP) algorithms are employed to understand and extract meaningful insights from written components such as essays and recommendation letters. The heart of the system lies in the predictive model, which is trained on a diverse dataset encompassing successful and unsuccessful admission outcomes. Supervised learning techniques are employed to enable the model to recognize patterns and correlations between various application attributes and admission success. The model is continuously refined through iterative training to adapt to changing admission criteria and preferences.The AI-based online admission screening system offers several advantages. Firstly, it significantly reduces the time and resources required for manual evaluation, allowing educational institutions to process a higher volume of applications efficiently. Secondly, the system enhances objectivity by standardizing the evaluation process, minimizing biases that may arise from subjective human judgment..Moreover, the system provides valuable insights into the factors influencing admission decisions, enabling institutions to optimize their admission criteria and improve the overall quality of admitted students. Additionally, the automated screening process allows for quick identification of exceptional candidates, facilitating a more personalized and targeted approach to admissions.In conclusion, the AI-based online admission screening system represents a paradigm shift in the admission process, combining advanced technologies to improve efficiency, objectivity, and decision-making. The integration of machine learning and NLP algorithms positions this system at the forefront of modern educational practices, ensuring a fair and data-driven approach to student admissions

No. of Pages : 13 No. of Claims : 4

(54) Title of the invention : SECURE AND PRIVATE HEALTH DATA EXCHANGE PROTOCOL FOR IOT-CONNECTED HOSPITALS USING BLOCKCHAIN TECHNOLOGY

(51) International classification :G06F0021620000, H04L0009320000, G16H0010600000, H04L0009060000, G06F0021600000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr.Revatthy Krishnamurthy, Rajalakshmi Engineering College Address of Applicant :Professor, Department of CSE, Rajalakshmi Engineering College Rajalakshmi Nagar, Thandalam, Chennai- 602105 Chennai ----- 2)Dr.Vaidehi.V, Dr.M.G.R Educational and Research Institute 3)Dr. J. Jeslin Shanthamalar, Sathyabama Institute of Science and Technology 4)Dr.R.S. Nancy Noella, Sathyabama Institute of Science and Technology 5)Ms.M. Devipriya, Sathyabama Institute of Science and Technology 6)Dr.S. Immaculate Shyla, Holy Cross College (Autonomous), Nagercoil 7)Mr. Shivam Gupta, Galgotias College of Engineering & Technology Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr.Revatthy Krishnamurthy, Rajalakshmi Engineering College Address of Applicant :Professor, Department of CSE, Rajalakshmi Engineering College Rajalakshmi Nagar, Thandalam, Chennai- 602105 Chennai ----- 2)Dr.Vaidehi.V, Dr.M.G.R Educational and Research Institute Address of Applicant :Assistant Professor, Department of Computer Applications, Dr.M.G.R Educational and Research Institute, Periyar E.V.R. High Road, (NH 4 Highway) Maduravoyal, Chennai - 600 095. Chennai ----- 3)Dr. J. Jeslin Shanthamalar, Sathyabama Institute of Science and Technology Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Jeppiar Nagar, Rajivee Gandhi Salai, Chennai-600119 Chennai ----- 4)Dr.R.S. Nancy Noella, Sathyabama Institute of Science and Technology Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Jeppiar Nagar, Rajivee Gandhi Salai, Chennai-600119 Chennai ----- 5)Ms.M. Devipriya, Sathyabama Institute of Science and Technology Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Jeppiar Nagar, Rajivee Gandhi Salai, Chennai-600119 Chennai ----- 6)Dr.S. Immaculate Shyla, Holy Cross College (Autonomous), Nagercoil Address of Applicant :Assistant Professor, Department of Computer Science, Holy Cross College (Autonomous), Holy Cross College Rd, Holy Cross Nagar, Nagercoil, Tamil Nadu 629002 Nagercoil ----- 7)Mr. Shivam Gupta, Galgotias College of Engineering & Technology Address of Applicant :Assistant Professor, Department of ECE, Galgotias College of Engineering & Technology, Knowledge Park II, Greater Noida, Uttar Pradesh 201310 Greater Noida -----

(57) Abstract :

A secure and private health data exchange protocol for IoT-connected hospitals using blockchain technology is disclosed. The protocol enables authorized parties to share and access health data while ensuring end-to-end encryption, immutability, and traceability. The protocol utilizes smart contracts and decentralized storage to safeguard data privacy and security, providing an auditable record of all transactions. The protocol is designed to promote data-driven medicine, reduce administrative burdens, and enhance patient care while maintaining strict data privacy and security standards. The protocol includes the following features like decentralized data storage Health data is stored on a decentralized storage system, ensuring that data is not controlled by a single entity and is resistant to tampering. End-to-end encryption Data is encrypted at the source and decrypted only when authorized, ensuring that data remains secure during transmission and storage. Immutable ledger All transactions, including data access and modifications, are recorded on a blockchain, creating an immutable audit trail. Smart contracts Self-executing contracts automate data access and sharing, ensuring that data is only accessible by authorized parties. Role-based access control Access to health data is restricted based on a user's role and relationship to the patient, ensuring that sensitive data is protected. Patient consent Patients can grant or revoke access to their health data at any time, empowering them to control their personal information. Real-time monitoring the protocol provides real-time monitoring of health data access and modification, enabling prompt detection and response to unauthorized activity. Integration with existing systems. The protocol can integrate with existing hospital systems, such as electronic health records and medical devices, to create a seamless and efficient data exchange process. By leveraging blockchain technology, the secure and private health data exchange protocol for IoT-connected hospitals provides a robust foundation for secure, efficient, and private health data exchange, supporting better patient care and improved health outcomes.

No. of Pages : 10 No. of Claims : 3

(54) Title of the invention : EVALUATION OF PROTECTIVE POTENTIAL OF KRILL OIL IN DOXORUBICIN INDUCED CHEMOBRAIN IN RATS

(51) International classification :C07D0401040000, A61K0031537700, A61P0025280000, A61K0035612000, A61P0025000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr. M. Jalaiah Address of Applicant :Associate Professor, Department of Pharmacology, QIS College of Pharmacy, Ongole 523272, Andhra Pradesh, India ----- 2)Dr. Jaya Sharma 3)Dr. Pankaj Sharma 4)Dr. Srikanth Kumar Karumanchi 5)Dr. K. Ashok 6)Mr. B. Sasidhar 7)Mr. L. Rama Chandra Reddy 8)Mr. P. Chandrasekhar Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. M. Jalaiah Address of Applicant :Associate Professor, Department of Pharmacology, QIS College of Pharmacy, Ongole 523272, Andhra Pradesh, India ----- 2)Dr. Jaya Sharma Address of Applicant :Principal & Professor, School of Pharmacy, Apex University, Jaipur 303002 Rajasthan, India ----- 3)Dr. Pankaj Sharma Address of Applicant :Registrar & Dean, School of Pharmacy, Apex University, Jaipur 303002 Rajasthan, India ----- 4)Dr. Srikanth Kumar Karumanchi Address of Applicant :Professor & HOD, Department of Pharmaceutical Chemistry, Institute of Pharmaceutical Science & Research (For Girls), Swami-Chincholi, Bhigwan 413130 Maharashtra, India ----- 5)Dr. K. Ashok Address of Applicant :Professor & HOD, Department of Pharmaceutics, QIS College of Pharmacy, Ongole 523272, Andhra Pradesh, India ----- 6)Mr. B. Sasidhar Address of Applicant :Assistant Professor, Department of Pharmaceutical Biotechnology, QIS College of Pharmacy, Ongole 523272 Andhra Pradesh, India ----- 7)Mr. L. Rama Chandra Reddy Address of Applicant :Associate Professor & HOD, Department of Pharmacognosy, QIS College of Pharmacy, Ongole 523272 Andhra Pradesh, India ----- 8)Mr. P. Chandrasekhar Address of Applicant :Assistant Professor, Department of Pharmaceutics, QIS College of Pharmacy, Ongole 523272, Andhra Pradesh, India -----

(57) Abstract :

The present invention relates to evaluation of protective potential of Krill Oil. Further invention relates to evaluation of protective potential of krill oil in doxorubicin induced chemobrain in rats. Krill oil contains large amounts of omega-3 fatty acids. Known for its anti-inflammatory, hypolipidemic, anti-depressant, improvement of cognitive function, prevention of neurodegeneration, neuroprotective, and antioxidant properties, krill oil (KO) is a special, naturally occurring nutrient derived from an Antarctic krill species called Euphausia superba. The purpose of the current study was to investigate the potential neuroprotective and memory enhancing benefits of krill oil against doxorubicin-induced cognitive and neurobiological deficits. Using a brand-new item identification task and the Morris water maze test, the protective effect of Krill oil against doxorubicin-induced memory deficits in rats was assessed. Treatment with krill oil (50 mg/kg and 100 mg/kg) significantly reduced the amount of memory impairment caused by doxorubicin. With both krill oil dosages, the levels of tumour necrosis factor (TNF-) and acetylcholinesterase activity were significantly lowered. Additionally, doxorubicin-induced oxidative and inflammatory damage to the frontal cortex and hippocampal regions of the brain is prevented by krill oil. According to these data, krill oil may be a promising adjuvant treatment approach for reducing doxorubicin-related side effects.

No. of Pages : 16 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :10/01/2024

(21) Application No.202441001847 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : RUBBERIZED STEEL SLAG-LIME BASED THERMALLY INSULATED BLOCKS

(51) International classification :C04B0111000000, C04B0111280000, C04B0040000000, C04B0028040000, C04B0018140000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Pawar Praveen Address of Applicant :KL Deemed to be University ----- - ----- 2)2. KONERU LAKSHMAIAH EDUCATION FOUNDATION 3)SRAVAN KUMAR CHILUKURI Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)SRAVAN KUMAR CHILUKIRI Address of Applicant :RESEARCH SCHOLAR DEPARTMENT OF CIVIL ENGINEERING, GREEN FIELDS, VADDESWAREM, GUNTUR DISTRICT, ANDHRA PRADESH, Guntur ----- 2)Dr. Sanjeet Kumar Address of Applicant :Associate Professor, Department of Civil Engineering Green Fields, Vaddeswaram, Guntur district, Andhra Pradesh, Guntur ----- 3)Dr. Ashwin Raut Address of Applicant :Associate Professor, Department of Civil Engineering Green Fields, Vaddeswaram, Guntur district, Andhra Pradesh, 522302. Guntur -----

(57) Abstract :

The abstract for Rubberized Steel Slag-Lime Based Thermally Insulated Blocks describes an innovative construction material that combines sustainability and thermal insulation properties. This novel composite material incorporates rubberized steel slag, a byproduct of the steel industry, and lime to create thermally insulated building blocks. The steel slag contributes durability and strength, while the rubberized component enhances flexibility and resilience. The lime acts as a binder, fostering cohesion within the material. The resulting blocks exhibit superior thermal insulation characteristics, offering energy efficiency in construction. This research explores the material's mechanical properties, thermal conductivity, and environmental impact, highlighting its potential as a sustainable solution for the construction industry. The study underscores the significance of utilizing industrial byproducts in innovative ways, promoting eco-friendly practices in building materials development.

No. of Pages : 12 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001851 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A POWER ELECTRONICS CONTROL SYSTEM OF A MOTORCYCLE

(51) International classification :B60K1/04, B60L53/00, B60W10/26, H02M1/00, H02M1/32, H02M3/00
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT A power electronics control system (100) of a two-wheeler vehicle disclosed. The power electronics control system (100) efficiently controls operating parameters of a two-wheeler vehicle with one or more power sources. The power electronics control system comprises of one or more power sources (302, 602), at least one high voltage power controller module (106), and at least one low voltage power controller module (102). The at least one high voltage power controller module (106) and the at least one low voltage power controller module (102) is coupled via an isolation module (104). The isolation module (104) is configured to allow communication and prevent electrical connection between the at least one high voltage power controller module (106) and the at least one low voltage power controller (102). FIG 1

No. of Pages : 28 No. of Claims : 11

(54) Title of the invention : THE DYNAMIC URBAN STREET LIGHTING SYSTEM: AN EDGE-BASED, ADAPTIVE, AND ENERGY-EFFICIENT SOLUTION FOR URBAN ILLUMINATION

(51) International classification :F21S0008080000, F21W0131103000, H05B0047190000, H05B0047115000, H05B0047155000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Dayananda Sagar College of Engineering Address of Applicant :Shavige Malleswara Hills, Kumaraswamy Layout, Bangalore Bangalore ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Aprameya Bharadwaj K Address of Applicant :Department of Computer Science & Design, Dayananda Sagar College of Engineering, Bangalore 560111 Bangalore -- ----- 2)C V Balaji Address of Applicant :Department of Computer Science & Design, Dayananda Sagar College of Engineering, Bangalore 560111 Bangalore -- ----- 3)Anirudh G Galagali Address of Applicant :Department of Computer Science & Design, Dayananda Sagar College of Engineering, Bangalore 560111 Bangalore -- ----- 4)Rohan G Address of Applicant :Department of Computer Science and Engineering (CSE), Indian Institute of Information Technology, Design and Manufacturing, Kancheepuram, Chennai-600127 Kancheepuram ----- ----- 5)Swathi B V Address of Applicant :Department of Computer Science & Design, Dayananda Sagar College of Engineering, Bangalore 560111 Bangalore -- ----- 6)Dr. Sharon Christa Address of Applicant :Department of Computer Science & Engineering, School of Computing, MIT ADT University, Pune-412201 Pune ----- -----

(57) Abstract :

This invention introduces a cutting-edge Dynamic Urban Street Lighting System, meticulously engineered to elevate energy efficiency and enhance public safety in urban settings. At the forefront of this system is its edge-based architecture, empowering each streetlight with autonomous daylight-responsive controls. These controls adeptly adjust lighting intensity in harmony with diminishing natural daylight, ensuring seamless transitions to artificial illumination. A pivotal feature of this system is the real-time integration of video analytics and motion sensors, all processed locally at the edge. This setup facilitates instantaneous detection of individuals and vehicles, with each streetlight independently responding to its immediate surroundings. Integral to this functionality are advanced machine learning algorithms, operating at the edge, which proficiently differentiate between pedestrians and vehicles based on the locally analyzed video data. Central to the system's innovation is its intelligent, localized control mechanism. Each streetlight, acting as a self-sufficient unit, dynamically modulates its intensity in response to detected presence, thereby optimizing energy consumption with remarkable precision. This approach not only conserves energy but also ensures targeted illumination where and when it's most needed, significantly enhancing urban safety. In summary, the invention presents a holistic and adaptive approach to urban street lighting. By merging the efficiencies of edge computing with real-time data processing and adaptive learning, it sets a new benchmark for smart, responsive urban illumination. This system not only aligns with sustainable energy practices but also plays a crucial role in fostering a secure, well-lit urban environment.

No. of Pages : 6 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001860 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : MACHINE LEARNING AND DATA SCIENCE BASED BIG DATA ANALYTICS OF PATIENTS SUFFERING FROM LUNGS CANCER

(51) International classification :G06T0007000000, G06N0003080000, G06N0003040000, A61P0035000000, G16H0050200000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Dr. Antonidoss A Address of Applicant :S.A.ENGINEERING COLLEGE, PROFESSOR & HEAD, DEPARTMENT OF COMPUTER SCIENCE AND BUSINESS SYSTEMS, POONAMALLEE AVADI MAIN ROAD, VEERARAGAVAPURAM, THIRUVERKADU, CHENNAI, TAMILNADU, INDIA-600077. ----- 2)S.A. ENGINEERING COLLEGE Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Antonidoss A Address of Applicant :S.A.ENGINEERING COLLEGE, PROFESSOR & HEAD, DEPARTMENT OF COMPUTER SCIENCE AND BUSINESS SYSTEMS, POONAMALLEE AVADI MAIN ROAD, VEERARAGAVAPURAM, THIRUVERKADU, CHENNAI, TAMILNADU, INDIA-600077. -----

(57) Abstract :

MACHINE LEARNING AND DATA SCIENCE BASED BIG DATA ANALYTICS OF PATIENTS SUFFERING FROM LUNGS CANCER Lung cancer has consistently proven to be one of the diseases that poses the greatest risk of death for its sufferers throughout the history of our species. In addition to this, it is one of the cancers that has the highest incidence rate and is responsible for the most deaths. The number of people diagnosed with lung cancer is constantly climbing. In India, there are approximately 70,000 new cases each year. The disease, particularly in its initial stages, has a propensity to lack symptoms, which renders it extremely difficult, if not impossible, to diagnose. Because of this, finding cancer in its early stages is critical to the process of preserving human life. A patient has a greater chance of curing their condition and making a full recovery if it is discovered early on. Technology plays a significant part in the improvement of cancer detection methods. Based on their findings, other researchers have suggested a variety of various approaches. In recent years, in order to employ computing technology to find a solution to this issue, a number of computer-aided diagnosis (CAD) strategies, in addition to a system, have been proposed, created, and are now emerging. These systems use a variety of machine learning approaches in addition to deep learning techniques, and there have also been a number of ways based on image processing-based techniques that have been developed to predict the extent of malignancy in cancer. Here, in this invention, the goal will be to concentrate on the list of different approaches in picture segmentation and feature extraction, as well as several techniques to classify and identify lung cancer in its early stages. Additionally, this invention will make an effort to compare and analyse these various methods.

No. of Pages : 15 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001864 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : 3D HOLOGRAPHIC PROJECTOR FOR IMAGE DISPLAY ON LIGHTNING

(51) International classification :G03H0001220000, G03H0001020000, G02B0005320000, G03H0001000000, H04N0013388000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

3D Holographic Projector For Image Display On Lightning Display Holography is the science that is grown from the use of the machine intelligence under the idea of dissemination of light. The 3d Holographic Projector For Image Display On Lightning Display that was under the science of holographic LED located film Projector.It was an 3D holographic LED display fan film projector .Where these LED 3D holographic film projector display figures in the form by utilising illumination accompanying the strips of RGB afterwards establishing and encrypting 2D or 3D concept or broadcast. These projectors will work like a fast-twisting fan enhances almost hidden to the naked eyes and projects the representations in in essence that is artificial that looks like floats the representation in air at under some climatic fulmination environments. This film projector will concede possibility be take over all present displays entirely sizes from limited telephone screen to the abundant film projector. In a looming day, these projectors will be situated effectively fields for effecting the concept. Where the consumer and spectator can feel the in—essence representation as authentic individual, by this type of advanced promoted science from now on it from people as political whole to live-in nanny in essence realm. Keywords: 3D Holographic, LED 3D Holographic, LED strips, RGB, dissemination.

No. of Pages : 7 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001888 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : DESIGN AND ANALYSIS OF LOW POWER SRAM MEMORY ARCHITECTURE USING SK-GCT POWER GATING TECHNIQUE

(51) International classification	:G11C0011412000, H01L0027110000, G11C0011417000, H03K0019000000, G11C0011419000	(71)Name of Applicant : 1)SAVEETHA ENGINEERING COLLEGE Address of Applicant :SAVEETHA NAGAR, THANDALAM, CHENNAI-602105, TAMILNADU. -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
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(57) Abstract :

The Sleepy Keeper and Galeor Leakage Control Transistor Technique (SKGCT Technique), which display a significant reduction in leakage power and delay, is used to develop a low power and high speed SRAM architecture. The two primary peripheral components of the SRAM architecture are the SRAM cell and the Sense Amplifier; by designing these two components with the SK-GCT Technique low power and high speed memory architecture be created.

No. of Pages : 8 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :10/01/2024

(21) Application No.202441001889 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : PHARMACOLOGY-BASED APPROACHES FOR MODULATING G PROTEIN-COUPLED RECEPTOR ACTIVITY

(51) International classification :G01N0033566000, G01N0033542000, A61P0005000000,
G01N0033740000, A61K0045060000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to :NA
Application Number :NA
Filing Date :NA
(62) Divisional to Application :NA
Number :NA
Filing Date :NA

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(57) Abstract :
PHARMACOLOGY-BASED APPROACHES FOR MODULATING G PROTEIN-COUPLED RECEPTOR ACTIVITY G protein-coupled receptors (GPCRs) mediate the majority of cellular responses to external stimuli. Upon activation by a ligand, the receptor binds to a partner heterotrimeric G-protein and promotes the exchange of GTP for GDP, leading to the dissociation of the G protein into α and $\beta\gamma$ subunits that mediate downstream signals. GPCRs can also activate distinct signaling pathways through arrestins. Active states of GPCRs form by small rearrangements of the ligand-binding, or orthosteric, site that is amplified into larger conformational changes. Molecular understanding of the allosteric coupling between ligand binding and G protein or arrestin interaction is emerging from structures of several GPCRs crystallized in inactive and active states, spectroscopic data, and computer simulations. The coupling is loose, rather than concerted, and agonist binding does not fully stabilize the receptor in an active conformation. Distinct intermediates whose populations are shifted by ligands of different efficacies underlie the complex pharmacology of GPCRs. FIG.1

No. of Pages : 15 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001907 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : ISOLATING HOST-SPECIFIC MYCORRHIZAL SPORES FOR GOSSYPIUM HERBACEUM GROWTH USING HMS TECHNIQUE

(51) International classification :C12N0001140000, H04W0036140000, A01G0018100000, G03F0007000000, A01G0033000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Exemplary embodiments of the present disclosure are directed towards the method for the isolation of host-specific mycorrhizal spores to enhance the growth of Gossypium herbaceum, utilizing the Homogeneous Mixture of Soil (HMS) technique. The method includes the steps of collecting Homogeneous Mixture of Soil from Cotton rhizosphere across diverse Forest regions. Gossypium herbaceum cultivar Mahyco is cultivated in HMS for 60 days. The best-grown plant is transferred to sterile soil, and Mycorrhizal colonization is observed after 5 weeks. Mycorrhizal spores are isolated using Wet Sieving and Decanting, and Glomus mosseae is identified through the Schenk and Perez (1987) manual. The isolated spores are propagated in funnels by sowing Mahyco seeds. Germinated seedlings are transplanted into pots for mass cultivation, establishing a host-specific mycorrhizal association for optimal Gossypium herbaceum growth. FIG. 1

No. of Pages : 21 No. of Claims : 10

(54) Title of the invention : SYSTEM AND METHOD FOR FACILITATING TARGETED TREATMENT BY ANALYSING DIAGNOSTIC IMAGES AND CLASSIFYING LUNG DISEASES

(51) International classification	:G16H0030200000, G06Q0020400000, G16H0030400000, A61B0005110000, G06N0003080000	(71)Name of Applicant : 1)VIT-AP University Address of Applicant :Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati -----
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Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number	:NA	1)SAHEBGOUD HANAMANTRAY KARADDI
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(57) Abstract :

The present disclosure relates to a system for facilitating targeted treatment by analysing diagnostic images and classifying lung diseases. The system (102) includes processors (202); and memory coupled to processors (202), memory (204) stores instructions which when executed by processors (202) cause system (102) to receive diagnostic images by receiving module (212), diagnostic images pertain to lungs of user and are captured using imaging techniques. The system (102) configured to retrieve image datasets from local database (210) by retrieving module (214) to compare and pre-process diagnostic images. The system (102) configured to enable data normalization, and data augmentation by pre-processing module (216) to analyse diagnostic images. The system (102) configured to extract features from diagnostic images by feature extraction module (218) to select and optimize features for classification. The system (102) configured to classify lung diseases by classification module (220) based on features to facilitate targeted treatment to user.

No. of Pages : 26 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001925 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A HEADREST DEVICE FOR MEDICAL CHAIR

(51) International classification :A47C7/36,
A61G15/12
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application
Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :

The present disclosure relates generally to the field of headrest devices. More specifically the present disclosure relates to a headrest device for medical chair. The device (100) includes a support structure coupled to a belt (108). The support structure comprises a first support portion (102), a second support portion (104), an integrated smart sensor, a temperature-regulating element and a ridge portion (106). The ridge portion (106) comprises a cushioning material, located between the first support portion (102) and the second support portion (104) so as to provide an additional support to the user by creating a contoured surface that conforms to a curvature of the head part and the neck part of the user. Advantageously the present invention relates to a headrest device for chair used in treatment including but not limited to dental treatment, medical treatment, massage treatment, beauty treatment, skin treatment and any combination thereof.

No. of Pages : 19 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001926 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A VERTICAL TUNNELLING FIELD EFFECT TRANSISTOR BASED BIOSENSOR AND CONFIGURATION THEREOF

(51) International classification :H01L0029660000, H01L0039220000, G01N0027414000, H01L0029808000, H03G0001000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

Present invention discloses a vertical tunnelling field effect transistor based biosensor and configuration thereof. The biosensor comprises a first gate region configured to receive the input voltage to control the current flowing and hold an electrostatic control on the first channel layer. Further, the biosensor comprises second gate region configured to receive the input voltage to control the current flowing and hold an electrostatic control on the second channel layer. Further, the biosensor comprises a source region sandwiched between the first gate region and the second gate region. The source region is configured to act as an electrode through which the majority charge carriers enter the first channel layer and the second channel layer once voltage is applied. Further, the biosensor comprises one or more drains coupled to at least one oxide layer. Furthermore, the biosensor comprises a cavity region configured to hold at least one bio-analyte to be sensed.

No. of Pages : 24 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001928 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A MODIFIED ORAL CAVITY SURGICAL RETRACTOR

(51) International classification :A61B17/24,
A61C19/00
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application
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(57) Abstract :

Embodiments of the present disclosure relate to a modified oral cavity surgical retractor (100) with one or more arms shielded with a protective covering, and a method (200) of modifying the oral cavity surgical retractor. The modified oral cavity surgical retractor (100) includes at least two arms (102) and a protective shield (104). The arms (102) provide support to a buccal mucosa during an oral surgical procedure. The protective shield (104) is made of soft material covering one or more edges of the at least two arms (102). The modified oral cavity surgical retractor (100) also includes a plurality of customizable detachable components to facilitate flap retraction during the oral surgical procedure. The protective shield (104) is configured to prevent the one or more edges of the at least two arms (102) of the oral cavity surgical retractor (100) from causing buccal mucosa trauma during surgical procedure.

No. of Pages : 22 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001929 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD FOR ENABLING TIMING CLOSURE IN SYSTEM-ON-CHIP (SOC)

(51) International classification :G06F0119120000, G06F0030331200, G06F0030398000, G06F0030327000, G06F0030394000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present disclosure relates to method (300) for enabling timing closure in system-on-chip (SoC) includes receiving inputs from components within SoC, inputs pertains to paths within SoC, paths includes timing paths, data paths; monitoring common starting points, common ending points, and paths within SoC by monitoring module(202); detecting violating paths within SoC by detection module(204), identifying data path optimization by identification module(206) based on timing paths with negative slack; enabling group path technique to group violating paths; enabling rerouting technique to optimize each violating group paths separately and in parallel manner by optimization module(210); correcting violating groups using path correcting module(212), path correcting module(212) changes placement density of blocks for correcting violating paths; optimizing density values automatically by configuration module(214) based on specified requirements within patch; correcting remaining violating paths within each group by changing metal layers, correcting logical errors; enabling optimizations, corrections, and adjustments within SoC for timing closure.

No. of Pages : 30 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001930 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SYSTEM AND METHOD FOR PROTECTING WIPER BEADING BLADES OF VEHICLE'S WINDSHIELD SURFACE

(51) International classification :B60Q0001140000, B60S0001040000, H01L0021020000, B60S0001380000, B60S0001480000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)VELLORE INSTITUTE OF TECHNOLOGY, CHENNAI Address of Applicant :Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)VINOD VASAN Address of Applicant :Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai - 600127, Tamil Nadu, India. Chennai ----- 2)NAVEEN VENKATESH S Address of Applicant :Postdoctoral Researcher, School of Mechanical Engineering (SMEC), Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai - 600127, Tamil Nadu, India. Chennai ----- 3)ANNAMALAI. K. Address of Applicant :Professor, School of Mechanical Engineering (SMEC), Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai - 600127, Tamil Nadu, India. Chennai ----- 4)SUGUMARAN V Address of Applicant :Professor, School of Mechanical Engineering (SMEC), Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai - 600127, Tamil Nadu, India. Chennai -----

(57) Abstract :

The present disclosure relates to a system for protecting wiper beading blades (104-1, 104-2) of a vehicle's windshield surface. The casing (202) includes membranous elastic material (204), and membranous elastic material (204) facilitates one state in response to temperature condition. The gas reservoir (212) coupled to membranous elastic material (204), and provides regulated supply of gas to membranous elastic material (204). The cantilevered diaphragm (206) is pivoted with first conducting tip (208-1), second conducting tip (208-2) configured to contact with first lead (210-1), second lead (210-2) based on state. The solenoidal coil (108) is energized, and operatively coupled to wiper stalk motor unit (106), solenoidal coil (108) supply power to wiper stalk motor unit (106) from battery (110, 214), wiper stalk motor unit (106) configured to rotate wiper beading blades (104-1, 104-2) away from vehicle's windshield surface to protect from a plurality of damages.

No. of Pages : 24 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001931 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AI based AI based Prevention of cyber-attacks on healthcare organizations using IoT, Cloud Computing and Machine Learning approach

(51) International classification :G06N0020000000, G06F0021560000, G06F0021570000, G06N0020200000,
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
AI based AI based Prevention of cyber-attacks on healthcare organizations using IoT, Cloud Computing and Machine Learning approach Abstract: Cyber-security intelligence has had a substantial impact on the healthcare industry, with a multitude of researchers diligently striving to devise inventive approaches that fortify the security of healthcare systems. Over the past few decades, Artificial Intelligence (AI) has surfaced as a potent instrument for augmenting and rationalising established methodologies. This research paper introduces a cyber attack detection system designed for the healthcare industry, which incorporates federated and centralised transfer learning mechanisms. The primary objective of the Edge of Things (EoT) framework is to optimise data transmission within the healthcare and cloud industries. The framework integrates the Centralised with Multi-Source Transfer Learning (CMTL) algorithm, a technique employed to identify and categorise various threats such as information gathering, DoS/DDoS, Malware, Injection, and Man in the Middle attacks. We are able to accomplish a high degree of accuracy and outperform other algorithms in terms of execution time analysis with our framework. They are making an effort to take advantage of vulnerabilities that have surfaced as a consequence of the enormous transformations that are taking place in the healthcare industry. These transformations are intended to enhance the health outcomes of patients and the care that they receive through the implementation of innovative technology. Professionals from the industry will provide their thoughts on the difficulties that are currently being faced by security and information technology specialists in the healthcare industry. There are a wide variety of cybersecurity challenges that the healthcare business must contend with. An assortment of issues have arisen as a consequence of the breaches that have occurred in healthcare facilities. These complications include the disruption of patient treatment as a result of distributed denial of service (DDoS) attacks, as well as the compromising of system integrity and patient privacy as a result of malware. The health care industry faces a distinct set of issues that distinguish it from other businesses that are considered to be important infrastructure, such as the power and water industries. There is the potential for cyber assaults that especially target the health care business to result in far-reaching ramifications that go beyond financial damages and the loss of data. This type of malicious software, known as ransomware, poses a significant risk to individuals because of its potential to steal sensitive information and demand payment in exchange for its release. In today's modern cybersecurity systems, algorithms and techniques for machine learning have developed into components that are absolutely necessary. Furthermore, this is not feasible because machine learning necessitates a comprehensive analysis of the data on which it relies in order to work in an effective manner. An extended network that is made up of billions of interconnected devices that are sentient and able to communicate with one another without the need for human intervention is referred to as the Internet of Things (IoT). This concept is referred to by the phrase Internet of Things within the industry. Due to the fact that it is vulnerable to a multitude of attacks in a dangerous digital environment, the rate of expansion of the Internet of Things (IoT) is extremely low. For the purpose of resolving this matter, it is of the utmost importance to develop effective techniques for the protection of Internet of Things networks, which should include the incorporation of network anomaly detection. In spite of the fact that it is impossible to totally prevent physical assaults, timely identification is absolutely necessary in order to achieve effective protection in the present. Because of the limited computing and physical capabilities of Internet of Things devices, it is not feasible to implement a conventional security solution of the best possible grade for an Internet of Things system. The amount of time that Internet of Things devices can remain connected to the internet without human intervention has been increased. Users will be obliged to engage in the utilisation of network security technologies that combine intelligence gathered from machine learning and other sources in order to guarantee the safety of their networks. Over the past few years, a significant amount of academic focus has been placed on the investigation of the application of Machine Learning (ML) technologies in the context of assault detection. A small amount of study has been carried out to determine whether or not these technologies are effective in detecting threats within networks that are connected to the Internet of Things (IoT). The objective of this study is to investigate a variety of machine learning strategies with the intention of identifying assaults on the Internet of Things (IoT) in a timely and effective manner. In the Bot-Internet of Things dataset, which was just recently merged, an ongoing study of a variety of detection methods is currently being carried out. A total of seven different machine learning algorithms were put through an evaluation, and the results showed that they were all satisfactory. Within our collection, new attributes have been discovered, and these have been subsequently compared to those that were previously released. In terms of performance, the characteristics that were discovered so recently outperformed those that were discovered in earlier research.

No. of Pages : 15 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :10/01/2024

(21) Application No.202441001932 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : OPTIMISED 4 PORT MIMO ANTENNA FOR UWB APPLICATIONS

(51) International classification :H01Q0001380000, H01Q0001520000, H01Q0021280000, H01Q0015000000, H04B0007041300

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Optimised 4 Port MIMO Antenna for UWB Applications. Abstract A Multiple Input Multiple Output (MIMO) antenna is the most essential part in the field of wireless communication systems. Further, the meta-material plays a major part in reducing the coupling between the antennas. Hence, in this work meta-material based four-port MIMO antenna is designed for UWB application including three band operations such as WiMAX (3.2- 3.7 GHz), WLAN (4.1- 6 GHz) and X- bands (8-12.1 GHz). In this design, the MIMO antenna is designed with Complementary Split Ring Resonators (CSRR) for improving bandwidth along with defected ground structure (DGS). Further, the metaheuristic algorithm honey badger optimization is used for optimizing the antenna dimensions. The proposed design is simulated in HFSS simulation platform on FR-4 substrate with the dimensions of 38x38x1.6 mm³. The gap between the elements of antenna is 0.1 . The radiation efficiency achieved by the proposed MIMO design is 93.7% for the overall operating range. Further, the MIMO system is compact in size and achieved better envelope correlation coefficient (ECC<0.01), Total active reflection coefficient (TARC<-10dB), diversity gain (DG>9.9 dB), Channel Capacity Loss (CLL<0.4) and Mean effective gain (MEG <3dB) at 3.7 GHz. Finally, it is concluded that the proposed meta-material based MIMO antenna is appropriate selection for the UWB applications.

No. of Pages : 6 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001933 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : APPLICATION OF NANO-BANANA PEEL BIO-COAGULANT FOR THE TREATMENT OF TURBID AND RIVER WATER

(51) International classification :C02F0001520000, C02F0001560000, C02F0009000000, C02F0001540000, C02F0001280000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
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(57) Abstract :

Application of Nano-Banana Peel Bio-Coagulant for the Treatment of Turbid and River Water ABSTRACT: As the world population increased the consumption of water and water treatment becomes critical. So, this research investigates the use of banana peel waste as a natural coagulant, eco-friendly modification of coagulation, synthetic water turbidity reduction, and river water purification. In this case, the typical particle size of the banana peel powder were 978 ± 37 nm, and modified powder were 571 ± 41 nm. The effectiveness of the coagulation was examined at various pH values, dosages, sedimentation periods, and NaCl concentrations. Up to 90% turbidity removal with 0.4 g/L of modified banana peel was found. While the coagulation performance was somewhat improved at concentrations of less than 0.4 g/L of NaCl, the activity was reduced, even in the modified powder, at higher concentrations. Banana peel powder significantly reduced watercolor, total dissolved and suspended solids, and chemical and biochemical oxygen demand in river water but only reduced turbidity by 75% and 83%, respectively, for non-modified and modified powders. The coagulation process was investigated and confirmed using SEM and FT-IR spectroscopy. Banana peel powder modified in this environmentally friendly way has a lot of potential as a cheap and accessible bio-coagulant and can likely help to decrease wastages.

No. of Pages : 12 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :10/01/2024

(21) Application No.202441001934 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : DEVELOPMENT OF FIBER-BASED PLASMONIC BIOSENSOR FOR STAPHYLOCOCCUS AUREUS BACTERIAL DETECTION IN FOOD SAMPLES

(51) International classification :G01N0021552000, G01N0033543000, C12Q0001689000, G01N0033553000, G01N0029020000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT DEVELOPMENT OF FIBER-BASED PLASMONIC BIOSENSOR FOR STAPHYLOCOCCUS AUREUS BACTERIAL DETECTION IN FOOD SAMPLES The study introduces an ultra-sensitive, label-free optical fiber biosensor aimed at detecting Staphylococcus aureus (S. aureus), a prevalent foodborne bacterium. This biosensor, designed around a tapered single-mode fiber (SMF) coupler structure, harnesses gold nanoparticles (AuNPs) to induce localized surface plasmon resonance (LSPR). Further boosting sensitivity, chitosan-coated iron (III) oxide nanoparticles and tungsten disulfide quantum dots are employed. Functionalized with antibodies, the optical fiber surface achieves targeted S. aureus detection. Operating at concentrations of 1×10^8 CFU/mL, the sensor exhibits a sensitivity of 2.74 nm/lg(CFU/mL) and a detection limit (LOD) of 1.47 CFU/mL. This innovation promises rapid response times of under 20 minutes, showcasing potential applications across disease detection, medical diagnostics, and food safety inspection.

No. of Pages : 18 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441001944 A

(19) INDIA

(22) Date of filing of Application :10/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A NOVEL WATER-SOLUBLE MOSQUITO AND FLY REPELLENT AND ITS METHOD OF PREPARATION.

(51) International classification :A01N0065000000, A01N0065440000, A01N0025340000, A61Q0017020000, A01N0065280000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)MR. CHANDRASEKARAN. TR Address of Applicant :S/O.RAMASAMY, 11/8 A 1 ,S.K.K.NAGAR, NANJAPPA LAYOUT, SULUR (TP), SULUR,COIMBATORE, TAMIL NADU – 641402. COIMBATORE ----- 2)MR. GANAPATHY SOUNDARARAJAN SEKAR Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)MR. CHANDRASEKARAN. TR Address of Applicant :S/O.RAMASAMY, 11/8 A 1 ,S.K.K.NAGAR, NANJAPPA LAYOUT, SULUR (TP), SULUR,COIMBATORE, TAMIL NADU – 641402. COIMBATORE ----- 2)MR. GANAPATHY SOUNDARARAJAN SEKAR Address of Applicant :S/O SOUNDARARAJAN, NO 8, GUGA RESIDENCY, ATHIPALAYAM, COIMBATORE NORTH, COIMBATORE, TAMIL NADU-641110 COIMBATORE ----- --- -----

(57) Abstract :

The present invention introduces a novel formulation of mosquito and fly-repellent in the form of a water-soluble tablet. The formulation contains a blend of essential oils such as Lemon Eucalyptus, Citronella, and Waxy Camphor, which are known for their effectiveness in repelling mosquitoes, flies, and other flying insects. The tablet is intended to provide efficient insect control, with a particular emphasis on rural areas where vector-borne diseases are prevalent. The water-soluble nature of the tablet ensures quick dissolution, and minimal environmental impact, and promotes sustainable insect control practices. The formulation prioritizes safety and eco-friendliness, providing a pleasant user experience. It is designed for cost-effectiveness and ease of production, making it accessible in various settings. The preferred embodiment of the tablet, which incorporates natural oils, serves as an air-freshening, low-cost, and environmentally friendly mosquito repellent, endorsed by health authorities.

No. of Pages : 11 No. of Claims : 11

(54) Title of the invention : A SYSTEM AND A METHOD FOR PROVIDING A BUSINESS ANALYTICS MATURITY FRAMEWORK

(51) International classification :G06Q0010100000, G06Q0010060000, G06Q0099000000, G06Q0010000000, G06Q0010040000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)HARI SARAVANABHAVAN Address of Applicant :19026, TOWER 19, PRESTIGE SHANTINIKETAN, ITPL ROAD, WHITEFIELD, BANGALORE- 560048, KARNATAKA, INDIA BANGALORE ----- 2)RADHIKA HARI Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)HARI SARAVANABHAVAN Address of Applicant :19026, TOWER 19, PRESTIGE SHANTINIKETAN, ITPL ROAD, WHITEFIELD, BANGALORE- 560048, KARNATAKA, INDIA BANGALORE ----- 2)RADHIKA HARI Address of Applicant :19026, TOWER 19, PRESTIGE SHANTINIKETAN, ITPL ROAD, WHITEFIELD, BANGALORE- 560048, KARNATAKA, INDIA BANGALORE -----

(57) Abstract :
A method (100) for providing a business analytics maturity framework is disclosed. The method include providing, a leadership factor with management variable to receive a data from a senior level managers. The method also includes providing, an analytics variable for generating an analytics strategy for analyzing relevant data, activating, by a business case variable, business applications and actionable insights from the analyses, providing, by a system variable of an information technology factor, an information agenda, providing, a talent variable of a human capital factor, providing, a structural variable to pursue collective goals of an organization, managing, by a governance, the use of business analytics resources in an enterprise, determining, a plurality of emerging technologies and building archetypes by a use case variable of an analytics catalyst, practicing, advocacy, and consistently fostering a positive acceptance of change, and achieving, by an analytics translator variable of an analytics catalyst, an organizational growth. FIG. 1

No. of Pages : 33 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :10/01/2024

(21) Application No.202441001990 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : PSYCHOLOGICAL STRESS MANAGEMENT AND STRESS REDUCTION STRATEGIES FOR SMARTPHONE USE AND SMARTPHONE ADDICTION

(51) International classification :A61B0005160000, A61B0005000000, A61B0005024000, A61P0025300000, A61P0025360000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :
Psychological Stress Management and Stress Reduction Strategies for Smartphone use and smartphone addiction is the proposed invention. The proposed invention focuses on understanding the functions of Smartphone use and smartphone addiction using algorithms of Psychological Stress Management. The invention focuses on analyzing the usage of Smartphone using algorithms of Stress Reduction Strategies.

No. of Pages : 13 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :11/01/2024

(21) Application No.202441002021 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A NOVEL VARIOUS REAL TIME LIQUID BASED CAPACITANCE ASSISTED ULTRA FINE TUNED IC 555 TIMER TIME DELAY AND ITS MANY INTEGRATED CIRCUITS APPLICATIONS

(51) International classification :H01L0021670000, G01N0027220000, H01L0021311000, A01N0043400000, G09B0023180000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
Liquid based real time capacitance introduced in the existing IC555 integrated electronic circuit. The digital outputs were measured from the cathode ray oscilloscope (CRO). Various chemical solutions were used in this real time liquid capacitance and we measured many new time delay results including sharp pulsed time delay outputs. Further systematic chemical solution concentrations increment showed systematic change in time delay outputs. This present invention leads new branch series scientific results and applications in integrated electronic circuits science and engineering field.

No. of Pages : 7 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002033 A

(19) INDIA

(22) Date of filing of Application :11/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A DIRECTIONAL CONTROL VALVE (DCV) BASED VEHICLE ROLL AND PITCH CONTROL SUSPENSION SYSTEM

(51) International classification :B60G0017015000, B60G0017016000, B60G0017018000, B60G0021060000, B60G0021055000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

A DIRECTIONAL CONTROL VALVE (DCV) BASED VEHICLE ROLL AND PITCH CONTROL SUSPENSION SYSTEM
ABSTRACT The present invention relates to a Directional control valve-based vehicle roll control and pitch control suspension system. Particularly, the system is a semi-active interconnected suspension system having DCV with 4 ports (P,A,T,B), double acting actuators and interconnected pipes whose movements are in accordance with the input control signals from the Controller, regarding the roll angle and body acceleration of the vehicle, thereby the roll angle and pitch angle cancellation occurs which ensures the stability of the vehicle and decreases the discomfort level. Figure 1 and Figure 2.

No. of Pages : 31 No. of Claims : 19

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002042 A

(19) INDIA

(22) Date of filing of Application :11/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : MACHINE LEARNING REGRESSION METHOD TO PREDICT THE PRICE ACTION OF A SHARE IN THE INDIAN SHARE MARKET

(51) International classification :G06Q0040040000, G06Q0040060000, G06N0020000000, G06F0017180000, A61K0036730000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT The invention is a machine learning regression method specifically tailored for predicting the price action of shares in the Indian share market. By leveraging historical market data, the method systematically collects, preprocesses, and engineer's features, including technical indicators, fundamental ratios, and sentiment scores. Flexibility in choosing regression models, such as Linear Regression, Decision Trees, Random Forests, or Support Vector Regression, allows for effective modeling of diverse data patterns. The model undergoes rigorous training and validation, with a focus on adaptability through periodic updates with new market data. The predictions encompass both directional trends and estimated price ranges, aiding investors and traders in decision making. The invention's application extends to various scenarios within the Indian share market, offering a versatile tool for investment decision support.

No. of Pages : 11 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002045 A

(19) INDIA

(22) Date of filing of Application :11/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : CARBON EMISSIONS TRACKING AND CARBON CREDIT TRADING PLATFORM

(51) International classification :G06Q0040040000, G06Q0050060000, C10G0002000000, G06Q0099000000, G06Q0050260000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

It is a well-known fact that CO2 emissions contribute to global warming and climate change, which can have serious impacts and consequences for people and the environment. All countries and corporations are trying to reduce their carbon emissions and move towards a net-zero carbon future. Carbon markets were established for this very purpose. Regulated carbon markets are markets where governments create a cap on net carbon emissions and provide carbon emission limits for corporations as permits. Carbon trading is the process of buying and selling permits and credits that enable permit holders to emit carbon dioxide. However, there are many limitations and problems faced by participants in the carbon markets such as lack of transparency, double counting and proper methods for tracking carbon emissions. We plan on incorporating blockchain into carbon markets, by tokenizing carbon emissions and creating a voluntary peer to peer carbon trading platform, which can reduce carbon footprint while solving the issues and limitations of conventional regulated carbon markets. Blockchain technology can provide a solution by monitoring and reporting emissions reductions for transactions, eliminating double counting problems, improving financial flows and helping build trust. It can help in enabling individuals to take part in a carbon-free future through the currently sealed off mandatory market. Millions of people around the world are eager to create an ecologically responsible future, and blockchain can facilitate this by unlocking the door for everyone to participate in the goal of a carbon-neutral future.

No. of Pages : 15 No. of Claims : 4

(54) Title of the invention : AUTOMATED IRRIGATION CONTROL SYSTEM WITH SOIL MOISTURE SENSING AND WEATHER FORECAST INTEGRATION

(51) International classification :A01G0025160000, G01W0001100000, A01G0009240000, G06Q0050020000, G01N0033240000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr. Athokpam Bikramjit Singh Address of Applicant :Professor, Department of Computer Science and Engineering, Yenepoya Institute of Technology, Thodar, Moodbidri, Mangaluru, Karnataka-574225 ----- ----- 2)Dr. Manjunath Kamath K 3)Mr. V Somesh 4)Mr. Sushil Sankre 5)Dr. Prashant S Humnabad 6)Dr. Hanamantraygouda M B 7)M.C.S.Geetha 8)Dr. Vidushi 9)Mr. S. Anil Kumar 10)Mr. Konduru Anand Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. Athokpam Bikramjit Singh Address of Applicant :Professor, Department of Computer Science and Engineering, Yenepoya Institute of Technology, Thodar, Moodbidri, Mangaluru, Karnataka-574225 ----- ----- 2)Dr. Manjunath Kamath K Address of Applicant :Professor and HOD, Department of Computer Science and Engineering, Yenepoya Institute of Technology, Thodar, Moodbidri, Mangaluru, Karnataka-574225 ----- ----- 3)Mr. V Somesh Address of Applicant :Assistant Professor, Department of Civil Engineering, Chouksey Engineering College, Bilaspur-455004, Chhattisgarh ----- ----- 4)Mr. Sushil Sankre Address of Applicant :Assistant Professor, Department of Civil Engineering, Chouksey Engineering College, Bilaspur-455004, Chhattisgarh ----- ----- 5)Dr. Prashant S Humnabad Address of Applicant :Associate Professor, Department of Mechanical Engineering, Sir M Visvesvaraya Institute of Technology, Hunsumaranahalli, Airport Road, Yelhanka, Bengaluru-562157, Karnataka ----- ----- 6)Dr. Hanamantraygouda M B Address of Applicant :Assistant Professor, Department of Mechanical Engineering, Sir M Visvesvaraya Institute of Technology, Hunsumaranahalli, Airport Road, Yelhanka, Bengaluru-562157, Karnataka ----- ----- 7)M.C.S.Geetha Address of Applicant :Assistant Professor, Department of MCA, Kumaraguru College of Technology, Coimbatore-641006, Tamilnadu ----- ----- 8)Dr. Vidushi Address of Applicant :Assistant Professor, School of Sciences, Christ (Deemed to be University), Delhi-NCR, Ghaziabad-201003, Uttar Pradesh ----- ----- 9)Mr. S. Anil Kumar Address of Applicant :Assistant Professor, Department of Civil Engineering, Ashoka Women's Engineering College, NH-44, Opposite Dupadu Railway Station, Kurnool-518218, Andhra Pradesh ----- ----- 10)Mr. Konduru Anand Address of Applicant :Assistant Professor, Department of Civil Engineering, Ashoka Women's Engineering College, Andhra Pradesh-518218 ----- -----

(57) Abstract :
The Automated Irrigation Control System with Soil Moisture Sensing and Weather Forecast Integration is a groundbreaking invention designed to revolutionize agricultural practices. This system combines soil moisture sensors and weather forecasting capabilities to optimize irrigation management, promoting efficient water use, enhanced crop yields, and environmental sustainability. Soil moisture sensors provide real-time data on soil moisture levels, enabling precise irrigation control to ensure crops receive the ideal amount of water. Integration with weather forecasting allows the system to proactively adjust irrigation schedules based on upcoming weather conditions, mitigating the risks associated with climate variability. This innovation offers scalability, making it suitable for diverse agricultural contexts, from small-scale farming to large commercial operations. Furthermore, it fosters data-driven decision-making among farmers, contributing to the adoption of sustainable practices. The Automated Irrigation Control System represents a transformative solution to the challenges of modern agriculture, aligning with global efforts to achieve food security and environmental conservation.

No. of Pages : 22 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002086 A

(19) INDIA

(22) Date of filing of Application :11/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : OPTIMIZED PROPORTION FOR PRODUCING FLY ASH BASED COARSE AGGREGATES INTEGRATED WITH COPPER ORE TAILINGS

(51) International classification	:C04B0028040000, B01J0037080000, B65B0003000000, B24C0001000000, B01D0021010000	(71)Name of Applicant : 1)National Institute of Technology Karnataka Address of Applicant :Srinivasnagar PO, Surathkal, Mangaluru - 575025, Karnataka, India Mangaluru ----- ----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
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(62) Divisional to Application Number	:NA	2)B. P. Sharath
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(57) Abstract :

A method (100) of preparing FA-based Coarse Aggregates Integrated with a COT using an optimized proportion of one or more materials (101-105) is disclosed. The method includes feeding a dry mixture of COT (101) and FA (102) in a inclined pan of a disc pelletizer. The method further includes rotating the disc pelletizer at a constant speed for ensuring homogeneity of the dry mixture. The method includes spraying alkaline solution over a rotated mixture of the COT (101) and FA (102) to obtain a dry mixture. The alkaline solution is a wetting agent. The method includes allowing the dry mixture to undergo agglomeration due to rotatory motion of disc, forming coarse aggregates in a predefined time. The method includes providing an additional time of duration for compaction of freshly produced aggregates. The method includes allowing the freshly produced aggregates to harden under ambient temperature conditions with relative humidity.

No. of Pages : 29 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :11/01/2024

(21) Application No.202441002142 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : BLOCKCHAIN-BASED SECURE DATA SHARING AND ACCESS CONTROL SYSTEM FOR IOT HEALTHCARE DEVICES

(51) International classification :G06F0021620000, H04L0009080000, G16H0010600000, H04L0009320000, G06F0021600000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr.B.Sathiyaprasad, Sathyabama Institute of Science and Technology Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Chennai-600119. Chennai ----- ----- 2)Dr.Babu.K, SRM Institute of Science & Technology 3)Ms.R.Asha, Sathyabama Institute of Science and Technology 4)Dr.V.Sarala , Saveetha School of Engineering 5)Ms.K.Ishwarya, Sathyabama Institute of Science and Technology 6)Ms.M Beula Kutti, SRM Institute of Science and Technology 7)Dr.Nithisha J, SRM Institute of Science and Technology 8)Ms.D.Devi, Sathyabama Institute of Science and Technology Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr.B.Sathiyaprasad, Sathyabama Institute of Science and Technology Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Chennai-600119. Chennai ----- ----- 2)Dr.Babu.K, SRM Institute of Science & Technology Address of Applicant :Assistant Professor, Department of Computational Intelligence, SRM Institute of Science & Technology, kattankulathur, Chennai-603203 Chennai ----- ----- 3)Ms.R.Asha, Sathyabama Institute of Science and Technology Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Chennai-600119. Chennai ----- ----- 4)Dr.V.Sarala , Saveetha School of Engineering Address of Applicant :Associate Professor, Department of Computer Science and Engineering, Saveetha School of Engineering, Chennai- 602105 Chennai ----- ----- 5)Ms.K.Ishwarya, Sathyabama Institute of Science and Technology Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Chennai-600119. Chennai ----- ----- 6)Ms.M Beula Kutti, SRM Institute of Science and Technology Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, SRM Institute of Science and Technology, Ramapuram, Chennai, Tamilnadu -600089 Chennai ----- ----- 7)Dr.Nithisha J, SRM Institute of Science and Technology Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, SRM Institute of Science and Technology, Ramapuram, Chennai-600089 Chennai ----- ----- 8)Ms.D.Devi, Sathyabama Institute of Science and Technology Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Sathyabama Institute of Science and Technology, Chennai-600119. Chennai ----- -----

(57) Abstract :

A blockchain-based secure data sharing and access control system for IoT healthcare devices is disclosed. The system leverages blockchain technology to provide a decentralized, secure, and transparent environment for sharing and managing medical data generated by IoT healthcare devices. The system includes smart contracts that automate data sharing and access control processes, ensuring that data is only accessible by authorized parties. A hierarchical encryption mechanism is used to ensure confidentiality and privacy of medical data, with encryption keys managed by a secure multi-party computation protocol. The system provides real-time monitoring and tracking of data access, modification, and sharing activities, enabling healthcare professionals to make informed decisions and maintain data integrity. The system also includes features such as data versioning, rollback, and recovery, ensuring data accuracy and consistency. The blockchain-based secure data sharing and access control system provides a robust and scalable solution for secure data sharing and access control in the healthcare industry, enabling healthcare professionals to share data securely and efficiently while maintaining data privacy and security.

No. of Pages : 3 No. of Claims : 2

(54) Title of the invention : INNOVATIVE BATTERY BRIDGING TECHNOLOGY FOR ULTRA-FAST-ALL-ELECTRIC APPLICATIONS

(51) International classification :B60L58/21, B60L58/22, H01M10/44, H02J7/00, H02J7/34
 (86) International Application No :NA
 Filing Date :NA
 (87) International Publication No : NA
 (61) Patent of Addition to Application Number :NA
 Filing Date :NA
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(57) Abstract :

The study you're describing proposes a novel system for all-electric applications that involves utilising two batteries with the same voltage but differing capacities. The main goal of this system is to achieve rapid battery charging 10 save time and enhance energy efficiency through battery interchange. This is accomplished by implementing battery bridging technology, which allows for extremely fast charging Limes: potentially within a fraction of a second. The intended result of this system is to significantly decrease the time required for battery charging. The concept of utilising two batteries with diflbrenl capacities but the same voltage For rapid charging is intriguing. By employing battery bridging technology: it's possible [0 transfer energy between the two batteries quickly, effectively allowing for a redistribution ofenergy that enables rapid charging. This approach can be beneficial in scenarios where time is critical, such as in electric vehicles or ponable electronic devices l'hal need to be charged quickly.

No. of Pages : 9 No. of Claims : 9

(54) Title of the invention : A WEARABLE SYSTEM FOR CONTINUOUSLY MONITORINGTHE SLEEP ACTIVITY OF A DRIVER

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	:G08B0021060000, B60K0028060000, G08G0001160000, A61B0005180000, G08B0025010000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)G SHANMUGASUNDAR Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING ,SRI SAI RAM INSTITUTE OF TECHNOLOGY , SAILEO NAGAR , WEST TAMBARAM CHENNAI-44 ----- 2)BHARANI KRISHNA G.V 3)J . KAMALAKANNAN 4)S BHARATH GANESH 5)KIRTHAN. J 6)KEERTHIVANTH. M Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)G.SHANMUGASUNDAR Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING ,SRI SAI RAM INSTITUTE OF TECHNOLOGY , SAILEO NAGAR , WEST TAMBARAM CHENNAI-44 ----- 2)BHARANI KRISHNA G.V Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING ,SRI SAI RAM INSTITUTE OF TECHNOLOGY , SAILEO NAGAR , WEST TAMBARAM CHENNAI-44 ----- 3)J . KAMALAKANNAN Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING ,SRI SAI RAM INSTITUTE OF TECHNOLOGY , SAILEO NAGAR , WEST TAMBARAM CHENNAI-44 ----- 4)S BHARATH GANESH Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING ,SRI SAI RAM INSTITUTE OF TECHNOLOGY , SAILEO NAGAR , WEST TAMBARAM CHENNAI-44 ----- 5)KIRTHAN. J Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING ,SRI SAI RAM INSTITUTE OF TECHNOLOGY , SAILEO NAGAR , WEST TAMBARAM CHENNAI-44 ----- 6)KEERTHIVANTH. M Address of Applicant :DEPARTMENT OF MECHANICAL ENGINEERING ,SRI SAI RAM INSTITUTE OF TECHNOLOGY , SAILEO NAGAR , WEST TAMBARAM CHENNAI-44 -----

(57) Abstract :

ABSTRACT Guardian Glass, an innovative smart glass system, continuously monitors driver drowsiness through state-of-the—art infrared sensors and machine learning. Upon detecting sustained eye closure indicative of drowsiness, it employs a tired alert system: Gentle auditory cues: For initial lapses, subtle prompts alert the driver. Calibrated water spray: For prolonged drowsiness, a gentle water mist gently re engages the driver. Emergency response: In critical situations, Guardian Glass transmits the vehicle's location to nearby medical facilities, ensuring swift assistance. This innovative system prioritizes safety, minimizing distraction while maximizing alertness, potentially saving lives on the road.

No. of Pages : 32 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :11/01/2024

(21) Application No.202441002157 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A NOVEL FRAMEWORK FOR SAFETY-CRITICAL DECISION-MAKING AND CONTROL USING MACHINE LEARNING

(51) International classification :G06N0020000000, G06N0003080000, H04W0004029000,
H04L0041160000, G06K0009620000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to :NA
Application Number :NA
Filing Date :NA
(62) Divisional to Application :NA
Number :NA
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(57) Abstract :
Safety-critical decision-control using algorithms of machine learning. A novel framework for safety-critical decision-making and control using machine learning is the proposed invention. The proposed invention focuses on understanding the functions of decision-making. The invention focuses on analysing the safety-critical decision-control using algorithms of machine learning.

No. of Pages : 13 No. of Claims : 5

(54) Title of the invention : A DIELECTRIC POCKET NANOWIRE JUNCTIONLESS FIELD EFFECT TRANSISTOR (DP-NWJLFET) FOR ENHANCING DIRECT CURRENT (DC) PERFORMANCES

(51) International classification :H01L0029060000, H01L0029423000, H01L0029786000, H01L0029780000, H01L0029660000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

Present disclosure relates to a Dielectric Pocket (DP) Nanowire Junctionless Field Effect Transistor (DP-NWJLFET) (100) for enhancing Direct Current (DC) performances. The DP-NWJLFET (100) includes a housing (112) comprising at least one of a source terminal (102) and a drain terminal (104). The DP-NWJLFET (100) includes at least one nanowire channel (108) coupled to at least one of source terminal (102) and the drain terminal (104), and configured to enable current flow. The DP-NWJLFET (100) includes at least one Dielectric Pocket (DP) (112) coupled to at least one of the source terminal (102) and the drain terminal (104), and configured to reduce one or more parameters based a pre-defined thickness. The DP-NWJLFET (100) includes a gate electrode (106) and configured to adjust gate voltage, and controls flow of electrical current between the source terminal (102) and the drain terminal (104) and minimizing the leakage current based on the pre-defined thickness.

No. of Pages : 18 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002244 A

(19) INDIA

(22) Date of filing of Application :11/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : HISPOLON DERIVATIVE AS A POTENT ANTITUBERCULAR AGENT

(51) International classification :A61P0031060000, C08K0003360000, B01J0019180000, C07H0005020000, C08H0007000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

ABSTRACT Hispolon Derivative as a Potent Antitubercular Agent The present invention relates a process of synthesis of hispolon derivatives as a Potent Antitubercular Agent with Hepatoprotectivity, comprising the steps of: (i) taking a mixture of tributyl borate (153 mmol) and acetyl acetone (254 mmol) into a round bottom flask equipped with a mechanical stirrer; then (ii) stirring of the reaction mass at 600C for 30 mins; (iii) adding appropriate benzaldehyde (51.02 mmol) to the complex formed in step (ii); (iv) adding n-butylamine (51.02 mmol) dropwise followed by stirring for 90 min at 650c to the reaction mixture of step (iii); (v) cooling of reaction mass to 550C followed by acidifying with 1 N HCl and stirring for 1 h; finally (vi) extracting the product of step (v) with ethyl acetate (2x50 ml) and concentrating the extract under vacuum.

No. of Pages : 29 No. of Claims : 5

(54) Title of the invention : CREDIBILITY QUOTIENT APPLICATION: A SYSTEM FOR ASSESSING AND SCORING THE AUTHENTICITY OF SOCIAL MEDIA CONTENT

(51) International classification	:G06Q0050000000, G06Q0030020000, H04W0004800000, G06F0021510000, G06F0021440000	(71)Name of Applicant : 1)Chandan Saxena Address of Applicant :9317 Almar Pl, Pittsburgh, PA 15237, United States. -----
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(57) Abstract :
This invention addresses the critical need for reliable information on social media platforms by introducing the Credibility Quotient application. This web application empowers users to verify the authenticity of content and assigns a credibility score to quantify its genuineness. By incentivizing the sharing of truthful information and deterring the spread of misinformation, this system promotes a culture of integrity and accountability on social media. Leveraging real-time analytics and user feedback, the Credibility Quotient application provides a transparent platform that rewards authenticity and fosters a more trustworthy online environment. This invention has the potential to significantly impact social media discourse and shape a more ethical and reliable information landscape.

No. of Pages : 31 No. of Claims : 18

(54) Title of the invention : SYNTHESIS, CHARACTERIZATION OF CURCUMIN GLYCINATES FOR IN VITRO AND IN SILICO CARBOHYDRATE DIGESTIVE ENZYME INHIBITOR

(51) International classification :A61P0003100000, A61K0036906600, A61K0031120000, A61K0031155000, A61P0003080000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Diabetes mellitus is an important health problem in humans. Worldwide, type 2 diabetes is documented for 90–95% of all cases of diabetes. Hyperglycemia is a high glucose level in the blood that can cause serious chronic diseases, cardiovascular diseases, including nephropathy and skin infections. It was stated that by the year 2010 approximately 200 million people, 2025 assumed to be 300 million and 2030 is projected to rise 366 million people worldwide will subsequently have diabetes. Similarly, in India, the estimated number of diabetic patients is increased every year. Thus, it is necessary to discover new alternative antidiabetic agents. A practical approach to control blood glucose levels is through natural products isolated from plants that act by retarding the absorption of carbohydrates during digestion and consequently decrease glucose release into the blood. This could be achieved through the inhibition of carbohydrate hydrolyzing enzymes, such as pancreatic amylases and intestinal disaccharidases, α -glucosidase, β -galactosidase, and β -fructofuranosidase. Some of the drugs available in the market are used to reduce the blood glucose level by different mechanistic pathways. For instance acarbose, metformin, maglitinides, sulfonylureas, Linagliptin, etc.,. But those drugs have common side effects like low blood sugar, weight gain and vomiting. Amid various mechanistic pathways, the inhibition of carbohydrate digestive enzymes like α -amylase and α -glucosidase is one of the simple targets to reduce the blood glucose level. Our focus is to develop the nontoxic inhibitors for α -amylase and α -glucosidase enzyme. The natural product based bioactive compounds or their derivatives are nontoxic molecules. Turmeric is a rhizomatous medicinal perennial plant (*Curcuma longa*) and has a rich history of being used in Asian countries, such as China and Southeast Asia. The main natural polyphenol in *C. longa* and other *Curcuma* species is known as curcumin (1,7-bis(4-hydroxy-3-methoxyphenyl)-1,6-heptadiene-3,5-dione),. Curcumin is a well-known bioactive compound and zero toxicity to mammals. The clinical trials validate that the daily dose of up to 12 g for 3 months has not shown any effect on the biological system of healthy people. But curcumin fails at the clinical level because of the insolubility nature of water. If curcumin is converted to its water-soluble derivatives, it will be a good drug candidate because it may not be toxic as well as an antidiabetic agent. Based on the above ideas, in the present research, I am planning to synthesize the water-soluble curcumin derivative by the introduction of glycineamide sodium salt. The synthesized compounds will be studied for α -amylase and α -glucosidase inhibitory activity. In continuation, the inhibitory activities will be studied by computational methods using molecular docking tools.

No. of Pages : 8 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :11/01/2024

(21) Application No.202441002288 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : CO-AXIAL ELECTROSPINNING-ASSISTED METHOD FOR FABRICATING EUGENOL-CAPPED SILVER NANOFIBROUS MAT FOR DIABETIC WOUND HEALING

(51) International classification :D01D0005000000, D01D0005340000, A61L0027560000, D01F0001100000, D01F0008140000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

A co-axial electrospinning-assisted method for fabricating eugenol-capped silver nanofibrous mat for diabetic wound healing is provided. The method includes (i) preparing first polymer solution by dissolving 8%-12% weight by volume (w/v) of first polymer in 2% w/v of acetic acid solution; (ii) obtaining core layer solution by adding 6%-12% w/v of eugenol-capped silver nanoparticles solution with 5mL of first polymer solution; (iii) obtaining sheath layer solution by dissolving 1%-5% w/v of second polymer in 2% w/v of acetic acid solution; and (iv) performing co-axial electrospinning by loading the core layer solution in a first syringe and the sheath layer solution in a second syringe, and depositing co-axially the core and sheath layer solutions under electrospinning operation parameters to obtain the eugenol-capped silver nanofibrous mat. The eugenol-capped silver nanofibrous mat provides enhanced anti-microbial activity and promotes vascularization and re-epithelialization potential in diabetic wounds, thereby enabling the healing of diabetic wounds. FIG. 1

No. of Pages : 33 No. of Claims : 10

(54) Title of the invention : INTEGRATED SEALING FLANGE FOR BATTERY PACK HOUSING

(51) International classification :B60L50/64, H01M50/20,
H01M50/249

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to :NA
Application Number :NA
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(57) Abstract :

ABSTRACT INTEGRATED SEALING FLANGE FOR BATTERY PACK HOUSING The disclosed subject matter relates to a housing for a battery pack, particularly for electric vehicles. The housing comprises a first part and a second part forming an enclosure for the battery pack. A sealing flange (100) seals the enclosure at the interface of the first and second parts. The 5 sealing flange (100) includes a molded body (102) with multiple cavities (104), each housing an insert (106). The insert (106) is designed to receive a fastener (114) to secure the sealing flange (100) to the enclosure. A separator plate (112), positioned above the inserts (106) in the molded body (102), aligns with the first end (108) of the corresponding insert (106). The 10 separator plate (112) separates an interface portion of the first end (108) of each insert (106) and the molded body (102) of the sealing flange (100), ensuring a secure and tight seal. << To be published with Figure 2 >>

No. of Pages : 19 No. of Claims : 7

(54) Title of the invention : MACHINE LEARNING BASED REAL-TIME ROBOTIC INSPECTION PLANNING AND MAINTENANCE SYSTEM FOR INDUSTRIAL EQUIPMENT

(51) International classification	:G06N0020000000, G06Q0010040000, G05B0023020000, G06Q0010060000, G06Q0010000000	(71)Name of Applicant : 1)RVR & JC COLLEGE OF ENGINEERING Address of Applicant :RVR & JC COLLEGE OF ENGINEERING CHANDRAMOULIPURAM, CHOWDAVARAM, GUNTUR PIN - 522 019 Guntur ----- -- ----- Name of Applicant : NA Address of Applicant : NA
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(62) Divisional to Application Number	:NA	
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(57) Abstract :
MACHINE LEARNING BASED REAL-TIME ROBOTIC INSPECTION PLANNING AND MAINTENANCE SYSTEM FOR INDUSTRIAL EQUIPMENT ABSTRACT The invention pertains to a real-time robotic inspection planning system for industrial equipment. A robotic inspection device, equipped with sensors and cameras, collaborates with a processor executing adaptive path planning algorithms. The system incorporates a real-time data transmission module that transmits data to a control center. Integral to the processor is a machine learning module, analyzing both historical and real-time inspection data. This module optimizes and adapts the path planning algorithms by identifying patterns and trends in the condition of the industrial equipment. The invention enhances adaptability through dynamic sensor configuration, provides condition-specific path optimization, and supports collaborative decision-making through a user interface. Feedback-driven learning refines the system's performance, while multi-modal data fusion ensures a comprehensive equipment analysis. Predictive maintenance scheduling and enhanced connectivity features further contribute to the system's efficiency and effectiveness in industrial inspection and maintenance.

No. of Pages : 14 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :11/01/2024

(21) Application No.202441002314 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : ANALYSIS OF THE FACTORS THAT INFLUENCE ELECTRONIC CUSTOMER RELATIONSHIP MANAGEMENT (E-CRM) IN THE BANKING SECTOR USING ANALYTICAL TECHNIQUE

(51) International classification :G16H0040670000, G06Q0010060000, G06F0040580000, G06Q0050200000, H04W0004700000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

[058] This collection of inventions encompasses a wide array of cutting-edge technologies and systems designed to address diverse challenges across industries. From supply chain optimization and autonomous vehicle navigation to wearable health monitoring devices and renewable energy solutions, these innovations leverage artificial intelligence, blockchain, and advanced materials to enhance efficiency, security, and convenience. Additionally, advancements in education, healthcare, and communication are evident in personalized learning platforms, telemedicine solutions, and language translation tools. These inventions reflect the relentless pursuit of innovation, aiming to improve the quality of life, foster sustainability, and drive progress in a rapidly evolving world. Accompanied Drawing [FIGS. 1-2]

No. of Pages : 25 No. of Claims : 10

(54) Title of the invention : MAGNETORHEOLOGICAL FLUIDS WITH DOUBLY PENETRATED REDUCED GRAPHENE OXIDE WITH INDIUM TRISEMATE + MWCNT BASED ON V2O5 MOF (METAL ORGANIC FRAME WORK) FOR ENHANCED FRICTION STIR WELDMENTS

(51) International classification :B82Y30/00, B82Y40/00, C01B32/198, C01B39/00, C08F4/52 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)CHENNAI INSTITUTE OF TECHNOLOGY Address of Applicant :CHENNAI INSTITUTE OF TECHNOLOGY CHENNAI 600069 chennai ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)D.Jayabalakrishnan Address of Applicant :chennai institute of technology centre for NC Technology dept of mechanical engg chennai 600069 chennai ----- 2)Raj Jawahar R Address of Applicant :Research Scholar Chennai Institute of Technology chennai 600069 chennai ----- 3)P Gurusamy Address of Applicant :chennai institute of technology department of Mechanical Engg chennai 600069 chennai ----- 4)K R Yuwaraj Address of Applicant :dept of Mechanical Chennai Institute of Technology chennai 600069 chennai -----

(57) Abstract :
The invention provides an improved method and composition for enhancing the properties of friction stir weldments. The enhancement is achieved by employing a magnetorheological fluid that incorporates a novel metal-organic framework (MOF) consisting of doubly penetrated reduced graphene oxide and indium trisemate and MWCNT based on V2O5. This MOF imbues the fluid with exceptional properties, including superior lubrication and strengthening capabilities, which significantly improve the mechanical and thermal properties of friction stir welded joints.

No. of Pages : 13 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :12/01/2024

(21) Application No.202441002344 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A METHOD AND SYSTEM BASED ON ARTIFICIAL INTELLIGENCE FOR OPTIMIZED SMART BUS TRANSPORTATION

(51) International classification :G07C0005080000, G06Q0010080000, G07C0005000000, H04W0004800000, G08G0001123000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention relates to a method for transportation management performing synchronous communication between passenger and owner by way of exchanging real time data through the communication devices connected to a vehicle. The transportation management system on a vehicle comprises of a data processing unit, a communication unit and a notification unit operating over a wireless network and having several transmission channels, which are recording and transmitting real time data related to bus current location, seat availability and total number of passengers travelling at a given time; wherein said vehicle includes a bus, a multi-utility vehicle, mini-vans, mini-buses. Figure. 1 of the drawings may accompany the abstract when published.

No. of Pages : 13 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :12/01/2024

(21) Application No.202441002348 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : NEONATAL MONITORING SYSTEM FOR REDUCTION OF SWAPPING OF BABIES USING MACHINE LEARNING AND DEEP LEARNING MODELS

(51) International classification :G06N0003040000, G06N0003080000, G06K0009620000, G10L0015160000, G06Q0020400000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :

In the recent era of technology face recognition has been evolved vastly as its been used in various real life application. In the present world they are a lot of infants have been illegally adopted, swapped and abducted. As a study reported in United States, they are 1,00,000 to 5,00,000 Infants have been switched accidentally. There is an increase in the case all over the universe and one way to overcome of this problem is through face matching. To overcome these problems, the authors proposed a system to recognize infant face using neural network which improves the accuracy in detecting the Infants. Neural network builds up layers which consist set of neurons with learnable parameters, and finally there is a fully connected layer called output layer that represents the predication. The primary objective is to establishing absolute and definitive identity of new born baby at the earliest possible and increasing the recognition rate and decreasing the false alarm rate during recognition process of an infant.

No. of Pages : 9 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :12/01/2024

(21) Application No.202441002356 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : DECISION MAKING MODELS AND WORKING MODEL FOR THE PARTICIPANTS IN CLOUD ENERGY STORAGE SYSTEM

(51) International classification :G06Q0050060000, H02J0003380000, H02J0003280000, H02J0003000000, H02J0013000000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

DECISION MAKING MODELS AND WORKING MODEL FOR THE PARTICIPANTS IN CLOUD ENERGY STORAGE SYSTEM Residential and small commercial consumers could use distributed energy storage devices to reduce their electricity bills under variable electricity prices to integrate domestic photo voltaic generation, store excess energy produced and participate in demand response. However, the high purchase price of these devices still limits their applications. This project produces an alternative form of distributed energy storage, cloud energy storage CES which is a shared pool of grid-scale energy storage resources that provides storage resources to small consumers. The goal of this approach is to lower the cost of energy storage by exploiting the complementarity of consumers as well as economies of scale. This project considers the investments and operating decisions of both the cloud energy storage operator and the consumers to demonstrate the benefits of this form of storage. The system can benefit the consumers by providing energy storage services at a lower cost. FIG.1

No. of Pages : 20 No. of Claims : 1

(54) Title of the invention : N-(3-FLUORO-[1,1'-BIPHENYL]-4-YL)-2-(PIPERAZIN-1-YL) ACETAMIDE AND METHOD OF PREPARATION THEREOF

(51) International classification :C07D0405140000, C07F0005020000, A61P0025000000, A61P0001140000, C07D0413040000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Disclosed is a N-(3-fluoro-[1,1'-biphenyl]-4-yl)-2-(piperazin-1-yl) acetamide. The present disclosure also relates to a method for the preparation of N-(3-fluoro-[1,1'-biphenyl]-4-yl)-2-(piperazin-1-yl) acetamide derivatives, the method includes reacting 2-(4-(tert-butoxycarbonyl) piperazin-1-yl)acetic acid with 4-bromo-2-fluoroaniline in the presence of a suitable coupling agent and a suitable base to produce tert-butyl 4-(2-((4-bromo-2-fluorophenyl)amino)-2-oxoethyl)piperazine-1-carboxylate, deprotecting the tert-butyl group to obtain N-(4-bromo-2-fluorophenyl)-2-(piperazin-1-yl)acetamide, and subjecting N-(4-bromo-2-fluorophenyl)-2-(piperazin-1-yl) acetamide to coupling reactions with various 3-(1H-indol-3-yl)propanoic acids to afford 2-(4-(3-(1H-indol-3-yl)propanoyl)piperazin-1-yl)-N-(4-bromo-2-fluorophenyl) acetamide derivatives. Palladium coupling reaction with various boronic acids to obtain N-(3-fluoro-[1,1'-biphenyl]-4-yl)-2-(piperazin-1-yl)acetamide derivatives. Further, the method includes reacting tert-butyl 4-(2-((4-bromo-2-fluorophenyl)amino)-2-oxoethyl)piperazine-1-carboxylate with various boronic acids in presence of suitable palladium catalyst to produce tert-butyl 4-(2-((3-fluoro-[1,1'-biphenyl]-4-yl) amino)-2-oxoethyl)piperazine-1-carboxylate derivatives, deprotecting the tert-butyl group to obtain N-(3-fluoro-[1,1'-biphenyl]-4-yl)-2-(piperazin-1-yl) acetamide derivatives, and subjecting N-(3-fluoro-[1,1'-biphenyl]-4-yl)-2-(piperazin-1-yl) acetamide derivatives to coupling reactions with various acids to obtain N-(3-fluoro-[1,1'-biphenyl]-4-yl)-2-(piperazin-1-yl)acetamide derivatives.

No. of Pages : 30 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :12/01/2024

(21) Application No.202441002414 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SMART BAG FOR WOMEN SAFETY

(51) International classification :F41H0013000000, G08B0015000000, A41B0009000000, A61B0005107000, A63F0009240000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :
ABSTRACT SMART BAG FOR WOMEN SAFETY Violence against women and girls is related to their lack of power and control, as well as to the social norms that prescribe men and women's roles in society and condone abuse. Inequalities between men and women cut across public and private spheres of life, and across social, economic, cultural, and political rights; and are manifested in restrictions and limitations on women's freedoms, choices and opportunities. These inequalities can increase women's and girls' risks of abuse, violent relationships and exploitation, for example, due to economic dependency and limited survival and income-earning options, or discrimination under the law as it relates to marriage, divorce, and child custody rights. The design of a smart bag provides security for Women. The smart bag comprises of GSM Module, Voice Sensor, Emergency Switch, Arduino Board, Actuators. The system gets activated either by pressing emergency switch or by sensing the voice of the women through a voice sensor. Upon detecting alarming situation, a high intensity light starts flashing, a buzzer generates sound alarm. High voltage is also produced and that hurts the attacker. In the meanwhile, message is sent automatically to the registered numbers mentioning location. FIG.1

No. of Pages : 10 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :12/01/2024

(21) Application No.202441002418 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : FOREIGN OBJECT DETECTION IN AN IMAGE ANALYSIS

(51) International classification :G06T0007000000, H02J0050600000, G01N0021880000, H04N0005232000, B60L0053124000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present invention is a foreign object detection in an image analysis, comprises of, a projection beams 3 of a light source 2 are projected to a solution 1 to be measured, and reflection beams due to each kind of foreign object in the solution 1 is observed by a foreign object detection device 7 from a direction on a surface at 9015 in a projection direction. An appearance frequency and a size are analyzed and measured from the obtained images of the foreign objects. More specifically, by visually counting the number of foreign objects in the projected beams 3, the amount of foreign objects can be recognized semi- quantitatively. Further, by inputting digital data that are obtained by A/D-converting an image through a digital camera or the like into an image analysis device for image processing and analysis, the size and the number of the foreign objects can be measured. In this case, the maximum length of the foreign object that becomes a problem in terms of the blemish in film quality is approximately 20 m or more and the minimum length is determined by performance such as the magnification of a microscope and a telescope.

No. of Pages : 6 No. of Claims : 1

(54) Title of the invention : ENHANCING THE POWER BY REDUCING THE HARMONICS IN GRID CONNECTED INVERTERS USING DEEP LEARNING TECHNIQUE

(51) International classification	:H02J0003380000, G06N0003040000, G06N0003080000, H02J0003010000, H02M0001120000
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

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(57) Abstract :
ABSTRACT The increasing use of renewable energy systems has led to a rise in the number of grid-connected inverters, which can have a detrimental effect on the superiority and constancy of grid electricity due to the injected current harmonics. In this research, the proportional integral (PI) and proportional resonant (PR) controllers have been investigated for their effectiveness in reducing harmonics in grid-connected inverters. The research also investigates the impact of harmonics compensators (HC) on the control strategies. The results of the research suggest that the implementation of PI and PR controllers in the synchronous frame can effectively reduce the injected current harmonics in grid-connected inverters. The use of harmonics compensators can further enhance the performance of the controllers by reducing the distortion and improving the stability of the grid. The efficiency of the regulator strategies is contingent on the type and level of harmonics in the grid, as well as the design and tuning of the controllers and compensators. The statement that the PR+HC controller has a superior quality output current is more specific and suggests that this control method may be more effective than the others in reducing harmonics and enlightening the value of the productivity current. The comparison of the IEEE 1547 standard by three viable inverters from diverse constructors is also noteworthy, as it can provide insights into the compatibility and performance of different types of inverters with the standard. The use of deep learning with the Region-based Convolutional Neural Network (RCNN) for analyzing harmonics and providing information about power is an interesting application of machine learning in power systems research. This approach may have the probable to development the accuracy and competence of harmonics analysis as well as power monitoring in grid-connected inverters. Overall, the research highlights the importance of effective control strategies for managing harmonics in grid-connected inverters, particularly in the context of the increasing usage of renewable energy systems. The findings of the research can inform the development of more efficient and reliable grid- connected inverters, which are essential for the incorporation of renewable energy systems into the power grid.

No. of Pages : 12 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :12/01/2024

(21) Application No.202441002432 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : METHOD OF ANALYSIS OF MANIFOLD CONFIGURATION IN MULTI-CYLINDER DIESEL ENGINE

(51) International classification :F01N0013100000, G06F0030230000, G06F0030200000, F01N0013180000, G06K0009620000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The analysis and design of multicylinder diesel engine manifold is to improve the performance of an engine by lowering backpressure and increasing velocity. Using PRO-E software, two new manifold models and one existing manifold model of the Maruti-Suzuki Wagon-R are developed in this work. Using the CFD software package FLUENT, it is carried out for two new models with the existing manifold. The results of the turbulence model selection, exhaust manifold inner flow pressure contour, and velocity contour for two new manifold models were compared to the existing manifold model. From the model analysis the manifold model – II shows decreasing in outlet pressure and increases in velocity. The exhaust manifold models and an existing exhaust manifold are studied using commercial ANSYS software. The velocity and pressure distribution along the length of the exhaust manifold is acquired by simulation. When compared to other new manifold model and older model, the performance of manifold model-II is superior.

No. of Pages : 9 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002520 A

(19) INDIA

(22) Date of filing of Application :12/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : DETECTION AND CLASSIFICATION OF INSECTS BITE USING MACHINE LEARNING TECHNIQUES

(51) International classification	:G06N0003080000, G06K0009620000, A61B0005000000, A61B0006030000, G06N0003040000	(71)Name of Applicant : 1)VIT-AP University Address of Applicant :Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati ----- Name of Applicant : NA Address of Applicant : NA
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Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

A system 100 and method to detect and classify insect's bite 218 can include a server, at least one first dataset 110, one or more modules, and at least one processor to perform operations to receive, from a subject 102, an input images 104 for the skin region affected by at least one insect bite; extract one or more features 110 and correlate with the first dataset 108 for optimisation; augment 114 the first dataset 108 and a second dataset 112 to perform correlation analysis between the augmented dataset 114 and the extracted features obtained; train and test the augmented dataset 114 using YOLO V8 to detect and classify type of bite and type of insect; and to predict result 120. The second dataset 112 is created synthetically for images on dark skin tone using CycleGAN. The augmenting is performed to increase the size of the dataset without collecting new images, and taken for classification of the insect bite using YOLO V8.

No. of Pages : 19 No. of Claims : 10

(54) Title of the invention : INCLUSIVE LABELING TECHNIQUE FOR VISUALLY IMPAIRED

(51) International classification :G09B0021000000, A61H0003060000, A61F0009080000, G06F0012081100, H04M0001724810 (86) International Application No :NA (86) International Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA (61) Patent of Addition Filing Date :NA (62) Divisional to Application Number :NA (62) Divisional to Filing Date :NA		(71)Name of Applicant : 1)KPR College of Arts Science and Research Address of Applicant :KPR College of Arts Science and Research, Arasur, Coimbatore Tamilnadu India Coimbatore ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr.R.Sangeetha Address of Applicant :Department of B.Com (CA), KPR College of Arts Science and Research, Arasur, Coimbatore Tamilnadu India 641407 Coimbatore ----- 2)Dr.M.Sekar Address of Applicant :Department of B.Com (CA), KPR College of Arts Science and Research, Arasur, Coimbatore Tamilnadu India Coimbatore ----- 3)Dr.R.Nithya Address of Applicant :Department of B.Com (CA), KPR College of Arts Science and Research, Arasur, Coimbatore Tamilnadu India Coimbatore ----- 4)Dr.S.Monica Address of Applicant :Department of B.Com (CA), KPR College of Arts Science and Research, Arasur, Coimbatore Tamilnadu India Coimbatore ----- 5)Dr.S.Thanga Helina Address of Applicant :Department of B.Com (CA), KPR College of Arts Science and Research, Arasur, Coimbatore Tamilnadu Coimbatore ----- 6)Ms.V.Pradeepaa Address of Applicant :Department of B.Com (CA), KPR College of Arts Science and Research, Arasur, Coimbatore Tamilnadu Coimbatore ----- 7)Mr.N.T.Anshad Address of Applicant :Department of B.Com (CA), KPR College of Arts Science and Research, Arasur, Coimbatore Tamilnadu Coimbatore ----- 8)Dr.K.Abinaya Address of Applicant :Department of B.Com (CA), KPR College of Arts Science and Research, Arasur, Coimbatore Tamilnadu Coimbatore ----- 9)Ms.V.Santhi Krishna Address of Applicant :Department of B.Com (CA), KPR College of Arts Science and Research, Arasur, Coimbatore Tamilnadu Coimbatore -----

(57) Abstract :

The present invention is an inclusive labeling technique for visually impaired is a method claim as a labeling for blind people is a crucial aspect of creating an inclusive and accessible environment. An individuals with visual impairments often face challenges in independently identifying and navigating their surroundings, and the goal of labeling is to provide information in formats that are tactile, audible, or easily distinguishable through other senses, therein, and this facilitates greater independence and inclusivity for blind individuals in various aspects of daily life.

No. of Pages : 6 No. of Claims : 1

(54) Title of the invention : ELECTRONIC HANDHELD DEVICE FOR TRAVEL ASSISTANCE TO THE VISUALLY IMPAIRED

(51) International classification :G09B0021000000, A61H0003060000, H04N0005225000, G01S0017931000, G01S0017890000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Abhishek Koti, CSED, MVSREC Address of Applicant :Maturi Venkata Subba Rao (MVSR) Engineering College, Hyderabad Hyderabad ----- 2)Sri Lasya Koti, CSED, MVSREC 3)Dr. Akhil Khare, CSED, MVSREC 4)Dr. Pallavi Khare, ECED, MEC 5)Dr. G. Kanaka Durga, ECED, MVSREC 6)Maturi Venkata Subba Rao (MVSR) Engieering College Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Abhishek Koti, CSED, MVSREC Address of Applicant :Maturi Venkata Subba Rao (MVSR) Engineering College, Hyderabad Hyderabad ----- 2)Sri Lasya Koti, CSED, MVSREC Address of Applicant :Maturi Venkata Subba Rao (MVSR) Engineering College, Hyderabad Hyderabad ----- 3)Dr. Akhil Khare, CSED, MVSREC Address of Applicant :Maturi Venkata Subba Rao (MVSR) Engineering College, Hyderabad Hyderabad ----- 4)Dr. Pallavi Khare, ECED, MEC Address of Applicant :Maturi Venkata Subba Rao (MVSR) Engineering College, Hyderabad Hyderabad ----- 5)Dr. G. Kanaka Durga, ECED, MVSREC Address of Applicant :Maturi Venkata Subba Rao (MVSR) Engineering College, Hyderabad Hyderabad -----

(57) Abstract :

7. ABSTRACT The handheld assitive device (100) propels visually impaired individuals towards greater independence by seamlessly integrating state-of-the-art technologies. Fueled by a high-speed System-on-Chip (SoC) (60) with an embedded AI chipset, the device harmoniously amalgamates AI, cameras, LiDAR, sensors, and auditory feedback mechanisms to redefine navigation and autonomy. Encompassing a compact HD dual camera module (10) endowed with night vision and laser precision, it captures high-definition images from versatile angles enriched with depth insights. Augmented by an integrated long-range micro-LiDAR (20), the device excels in detecting obstacles and accurately measuring distances. The micro passive infrared (PIR) sensor (30) adeptly senses the nuances of human and animal movements. This comprehensive solution strategically addresses challenges spanning daily tasks, public transit, and financial transactions. Through real-time multi-sensor data processing, timely tactile alerts from a low-frequency vibrator module, and clear auditory guidance from high-duty speakers (50), it catalyzes a transformative experience for visually impaired users. Figure associated with Abstract is Fig. 1

No. of Pages : 25 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :12/01/2024

(21) Application No.202441002574 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : ELECTRONIC DEVICE AND METHOD FOR PROVIDING AIR CIRCULATION BY MONITORING SURROUNDINGS AND CONTROLLING SWEEPING MODES

(51) International classification :H04N0005232000, G06F0003042000, G06F0003010000, H04N0007180000, H04N0021442000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)VELLORE INSTITUTE OF TECHNOLOGY, CHENNAI Address of Applicant :Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)K. KABILAN Address of Applicant :Assistant Professor Sr. Grade 2, SCOPE, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- 2)M. ASHA JERLIN Address of Applicant :Assistant Professor Sr. Grade 2, SCOPE, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- 3)M. BRAVEEN Address of Applicant :Associate Professor, SCOPE, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- 4)T.V. PADMAVATHY Address of Applicant :Associate Professor Sr. Grade, SCOPE, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai -----

(57) Abstract :

The present disclosure relates to an electronic device (102) for providing air circulation by monitoring surroundings and controlling sweeping modes. The electronic device (102) includes image capturing units (114) operatively coupled to processors (112) to monitor surroundings and detect presence, and absence of user. The electronic device (102) includes memory (204) coupled to processors (112), memory (204) stores instructions which when executed by processors (112) cause electronic device (102) to monitor surroundings by monitoring module (212) through image capturing units (114), image capturing units (114) captures images of user upon detecting presence of user. The electronic device (102) configured to receive images of user from image capturing units (114) by receiving module (214). The electronic device (102) configured to analyse images by analysing module (216) to determine parameters. The electronic device (102) configured to actuate sweeping mode by actuation module (218) based on parameters to provide air circulation to user.

No. of Pages : 26 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :12/01/2024

(21) Application No.202441002584 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : ONLINE PAYMENT FRAUD DETECTION USING DATA SCIENCE AND MACHINE LEARNING IN PYTHON

(51) International classification :G06Q0020400000, G06Q0020100000, G06Q0030060000, G06Q0020380000, G06Q0020340000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :
Online Payment Fraud Detection using Data Science and Machine Learning in python Abstract: With the approach of modern times, the practice of making online payments is experiencing significant growth. Online payment offers significant benefits to the customer, as it not only saves time but also resolves the inconvenience of carrying extra cash. Furthermore, there is no need for us to carry any cash at any given moment. It is widely understood that wherever there is anything positive, there is also something negative. Online payment methods are susceptible to fraud, which can be perpetrated with any payment software. Hence, the identification of deceptive Online Payments is crucial. Internet buying poses a significant risk due to the prevalence of fraudulent transactions. The occurrence of fraudulent online transactions associated with them is become more common, impacting the financial transaction industry. While credit card holders have the privilege of using their cards for purchases, this system also has the capacity to hinder and frustrate them. To tackle these concerns, the system is specifically intended to handle transactions that exceed the customer's existing maximum limit. Through registration, we can acquire the essential data to determine if a person is behaving inappropriately. The emergence of internet payment systems has greatly enhanced the ease and efficiency of making payments. Simultaneously, there was an increase in fraudulent activities related to financial transactions. Instances of fraudulent transactions in online payments can happen to anyone utilising any payment system, although they are more prone to occur when payment is conducted through a credit card. Hence, it is crucial for credit card issuers to identify fraudulent online transactions to ensure that their clients are not billed for unauthorised purchases. If you have an interest in acquiring the skills to detect and recognise deceitful online money transactions, then this post is specifically tailored for you. In this essay, I will explain how to identify fraudulent online payments using machine learning and Python.

No. of Pages : 14 No. of Claims : 8

(54) Title of the invention : IOT DEVICE TO MONITOR PARALYZED PATIENTS TO FACILITATE THE NEEDS AND TO MEET THEIR REQUIREMENT BASED ON THE GESTURES/TOUCH SENSE FREQUENCY USING STRONG DEEP LEARNING AND IMAGE PROCESSING TECHNIQUES

(51) International classification	:A61B0005000000, G06F0003010000, G16H0040670000, G09B0021000000, H04W0004380000	(71)Name of Applicant : 1)Mukesh Madanan Address of Applicant :Lecturer, Department of Computer Science, College of Arts and Applied Sciences, Dhofar University, Oman ----- 2)Nurul Akhmal 3)Nitha C Velayudhan Name of Applicant : NA Address of Applicant : NA
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Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
IOT device to monitor Paralyzed patients to facilitate the needs and to meet their requirement based on the Gestures/touch sense frequency using strong deep learning and image processing techniques
ABSTRACT: Paralytic people in most cases are not able to convey their needs as they are neither able to speak properly nor do they convey through sign language due to loss in motor control by their brain. The Patient Monitoring system is a method that continuously observes the patient's vital signs. Attaching sensors to the patient is a customary procedure for monitoring purposes. The components that enable the system to function are the network of sensors, wireless connectivity, and display devices. Several other components are beneficial. In simple terms, sensors are transducers that are employed to measure and record various physical qualities of the patient. The display device is responsible for capturing the desired received signal and presenting it accurately on an LCD or HMI display. They are occasionally referred to as display devices. Communication devices are commonly used to transmit information across relatively small distances. Microcontroller units often function as additional components in the majority of patient monitoring systems. Paralysis is a condition characterised by the paralysis of some or all of the muscles in the body. While the occurrence of this condition is not limited to a certain body part or period, it is possible to experience no discomfort in the affected location. Implementing novel therapeutic and technology advancements has the potential to augment individuals' quality of life. The desired result is the development of a cost-effective and user-friendly technology that integrates fundamental health monitoring with nursing care, while being simple to operate and comprehend. We lack knowledge regarding the means by which these individuals are capable of articulating their thoughts and desires. In order to address this issue, we devised a technique that enables these individuals to convey messages with a limited set of fundamental motions. It is possible to create this device in a manner that allows it to be worn either as a built-in component of the wearer's clothing or as an accessory on their finger.

No. of Pages : 12 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :12/01/2024

(21) Application No.202441002586 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : AI AND IOT BASED AUTOMATED ATTENDANCE SYSTEM USING FACIAL RECOGNITION

(51) International classification :G07C0001100000, G06F0021320000, B60W0040080000, G08B0013196000, G07C0001120000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

AI and IoT based Automated Attendance System using Facial Recognition ABSTRACT: A smart attendance system that operates on the internet of things and is founded upon face recognition is a device that records attendance by capturing images from a monitor camera and using facial biometrics to identify pupils. Through the utilisation of a Raspberry Pi, our face recognition system shall possess the capability to accurately and efficiently distinguish and identify human features that are embedded within photographs. The conventional approach of individually calling out the names of each student is not only laborious but also introduces the potential for inaccurate attendance records. In order to facilitate the management and monitoring of pupil attendance, the suggested system employs facial recognition technology. The system employs identification and face detection methods to ascertain the identities of those present during the attendance recording process. Additionally, photographs of the individuals in attendance are captured by the system. Subsequently, the identified students are designated as present and their attendance records are revised to reflect the current time, student identification number, and name. These deep learning methodologies were implemented during the course of this research.

No. of Pages : 13 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002587 A

(19) INDIA

(22) Date of filing of Application :12/01/2024

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(54) Title of the invention : DESIGN AND CONTROL OF PV BASED ISOLATED POWER SUPPLY USING IQF CONTROLLER FOR AGRICULTURAL

(51) International classification :A01G9/24, G05F1/66, H02J7/00, H02J7/35, H02J9/06, H02S10/40, H02S40/30
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Electricity is very important in agriculture. Such electricity is not always available to the farmers. Uninterrupted power becomes impossible due to natural disasters, repairs, maintenance etc. The main objective of this research paper is to generate uninterrupted electricity from sunlight, store it and run agricultural equipment. FX5U iQF controller is used as the heart of the stand-alone power system. FX5U32MTESS controller is used for controlling the mode of operation of standalone power system. Both online mode and offline mode of operations are accomplished by the FX5U controller. FX5U controller has an inbuilt PWM port for controlling the solar tracking mechanism. Produced solar energy is stored in the battery through the charge controller and the same is used to drive the irrigation pump motor. Variable AC is obtained from the inverter part and the DC-DC chopper is used for obtaining the variable dc supply from the battery dc link voltage. The entire power system is easy to move wherever the power supply is required. The parameters of the standalone power supply are monitored by GT27 GOT2000 HMI.

No. of Pages : 10 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002589 A

(19) INDIA

(22) Date of filing of Application :12/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SMART METER BASED ENERGY HUBS PEROFRMING ENERGY INTEROPERABILITY TO IMPROVE CONSUMER FIRENDLY ENERGY SECTOR

(51) International classification :G01D4/00, G01R21/00, G01R22/06, G06Q50/06, H02J3/00
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
SMART METER BASED ENERGY HUBS PEROFRMING ENERGY INTEROPERABILITY TO IMPROVE CONSUMER FIRENDLY ENERGY SECTOR ABSTRACT Disclosed herein is a smart energy meter and method for performing energy interoperability with one or more neighboring smart energy meters. The smart energy meter comprises a memory, and a controller. The controller is configured to assign a predetermined number of energy units to the smart energy meter. Further, the controller is configured to monitor a usage of the predetermined number of energy units and determine balance energy units associated with the smart energy meter. Thereafter, the controller is configured to transmit a request for energy units to the one or more neighboring smart energy meters. Finally, the controller is configured to receive the requested number of the energy units from at least one neighboring smart energy meter from the one or more neighboring smart energy meters to perform the energy interoperability to function without any power outage. Figure 1

No. of Pages : 43 No. of Claims : 16

(54) Title of the invention : SMART HIGH-PRESSURE WATER JETTING SYSTEM FOR AI-OPTIMIZED DRAINAGE CLEANING

(51) International classification :G06Q0010000000, B21B0045080000, G06N0003020000, B08B0009093000, G05B0023020000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Dr. A. Akila Address of Applicant :Associate Professor Computer Science Department, Vels Institute of Science, Technology and Advanced Studies, Pallavaram, Chennai ----- 2)Dr. R. Parameswari 3)Dr. Yogesh Kumar Sharma 4)Babloo Kumar Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. A. Akila Address of Applicant :Associate Professor Computer Science Department, Vels Institute of Science, Technology and Advanced Studies, Pallavaram, Chennai ----- 2)Dr. R. Parameswari Address of Applicant :Professor, Computer Science Department, Vels Institute of Science, Technology and Advanced Studies, Pallavaram, Chennai ----- 3)Dr. Yogesh Kumar Sharma Address of Applicant :Associate Professor, Computer Science and Engineering Department, Dewan V S Institute of Engineering and Technology, Meerut(U.P), Meerut, U.P ----- 4)Babloo Kumar Address of Applicant :Assistant Professor , Computer Science and Engineering Department, Dewan V S Institute of Engineering and Technology, Meerut(U.P), Meerut, U.P -----

(57) Abstract :

The maintenance and cleaning of drainage systems play a crucial role in ensuring efficient and reliable wastewater management. Traditional methods often suffer from inefficiencies, high costs, and limited effectiveness. To address these challenges, a Smart High-Pressure Water Jetting System for AI-Optimized Drainage Cleaning has been developed. This system leverages the power of high-pressure water jets and artificial intelligence (AI) algorithms to achieve enhanced cleaning efficiency, cost-effectiveness, and environmental sustainability. The proposed system combines cutting-edge technologies to optimize the cleaning process. High-pressure water jets deliver a powerful cutting and cleaning action to dislodge and remove debris, sediments, and blockages from drainage pipes. The AI algorithms integrated into the system analyze various parameters, including pipe diameter, material, flow rate, and historical data, to determine the optimal cleaning parameters for each specific pipe section. By tailoring the water pressure, nozzle angle, and cleaning patterns to the specific conditions of the pipes, the system maximizes cleaning efficiency while minimizing water consumption and potential damage to the pipes. Real-time monitoring is an essential feature of the Smart High-Pressure Water Jetting System. Sensors and cameras installed in the system provide live feedback on the cleaning process. The AI algorithms analyze this data to detect any abnormalities or areas requiring additional attention. Operators can remotely control and monitor the system, viewing live video feeds and adjusting cleaning parameters as needed. This remote control capability improves safety, as operators can avoid potentially hazardous situations. The Smart High-Pressure Water Jetting System employs data collection and analysis for efficient drainage cleaning. It gathers information on cleaning parameters, pipe conditions, and issues for performance evaluation and predictive maintenance. This system optimizes AI algorithms, reducing cleaning time and costs, while also conserving water resources. The high-pressure water jets ensure thorough cleaning, minimizing blockages and overflows. Real-time monitoring detects potential issues early, enabling proactive maintenance and preventing emergencies. The remote control feature enhances safety by reducing manual intervention in hazardous tasks. Overall, it represents a technologically advanced solution, combining high-pressure water jetting and AI optimization for improved drainage system performance and longevity

No. of Pages : 10 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002666 A

(19) INDIA

(22) Date of filing of Application :13/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : DEVELOPMENT OF PAPER USING BIO-WASTE OF WATER HYACINTH (EICHHORNIA CRASSIPES)

(51) International classification	:C02F0003320000, A61K0036480000, A23K0010300000, C02F0009000000, A23K0010370000	(71)Name of Applicant : 1)Dr.N.G.P. Arts and Science College Address of Applicant :Dr.N.G.P. Nagar, Kalapatti Road, Coimbatore-641048 Coimbatore -----
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(87) International Publication No	: NA	(72)Name of Inventor :
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(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

Abstract Eichhornia crassipes known as common Water hyacinth is a freshwater aquatic plant. It forms dense mat on the surface of water bodies will reduce light penetration followed by depletion of dissolved oxygen which affects the aquatic environment. The invention aims to produce ecofriendly and biodegradable papers using the leaf of Eichhornia crassipes. Water hyacinth contains high quality fibers used in paper production. The process has many benefits in the aspects of economy, environmental and sustainable development etc., Water hyacinth holds a very important role in sustainable development. The plant is considered to be aggressive and has been a terrible nuisance for more than 100 years on almost all of the continents .The problem has grown in such proportions that the government itself is not able fix it .It was noticed that there isn't one particular method that could offer long term solution. This invention relates to the field of chemical technology. Specifically the invention relates to development of paper using chemical processing of Water hyacinth. Thus an approach was made to produce paper from the biomass of the water hyacinth. These species serve as an alternative source in the process of paper making and also give out less chemical waste. This results in the sustainable development of the country.

No. of Pages : 9 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002667 A

(19) INDIA

(22) Date of filing of Application :13/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : DESIGN AND DEVELOPMENT OF FIRE RETARDANT CURTAINS USING BANANA FIBRE FOR AIR CONDITIONED BUSES

(51) International classification	:A61K0036880000, C04B0020100000, C08J0009140000, C05F0011000000, E04C0002160000	(71)Name of Applicant : 1)Dr.N.G.P.Arts and Science College Address of Applicant :Dr. NGP Nagar –Kalapatti, Coimbatore 641048 Coimbatore -----
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(62) Divisional to Application Number	:NA	
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(57) Abstract :

ABSTRACT Banana fiber is a lingo-cellulosic fiber, which obtained from the pseudo-stem of banana plant. Banana fiber is a bast fiber with relatively good mechanical properties. Banana fiber has good specific strength properties comparable to those of conventional material, like glass fiber. Banana fiber at is a waste product of banana cultivation and either not properly utilized or partially done so. Banana fibers have highly strength, light weight, smaller elongation, fire resistance quality, strong moisture absorption quality, great potentialities and biodegradability. Banana fiber has recognized for apparels and home furnishings Banana belongs to Musa, particularly M. acuminata (Mohapatra et al., 2010). Cultivation of banana is one of the most popular agricultural practices in India as it is an important fruit crop. An area of around 830.5 thousand ha of land is used for banana cultivation with a production of around 29,779.91 thousand tons. Maharashtra, Tamil Nadu, Gujarat, Andhra Pradesh and Karnataka are the major banana producing states. About nineteen percent of total production are from these states accounting for productivity of 61.176 t/ha. Tamil Nadu has the highest banana cultivation area followed by Maharashtra. In Tamilnadu, Theni, Tiruchirappalli, Coimbatore, Tuticorin, Pudukkottai are the major banana producing districts. Huge quantity of waste is produced from the large area of cultivation which can supply a significant quantity of fibres (Pappu et al., 2015).Its continuous production and availability throughout the year makes it a sustainable textile fibre and has perspective as textiles in apparel and home furnishings. Simultaneously promoting banana fibers will facilitate the required fiber availability to meet the growth targets of the textiles and garments sector as well.

No. of Pages : 11 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002668 A

(19) INDIA

(22) Date of filing of Application :13/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : DESIGN AND DEVELOPMENT OF HERBAL FACIAL BEAUTY MASK

(51) International classification :A01H6/14, A01N65/12, A61K36/28, A61K8/97, A61Q19/00
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
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(57) Abstract :

Acne and oil prone is most common in teenagers and young adults, though it affects people of all ages that occurs when the hair follicles become plugged with oil and dead skin cells. It causes pimples, acene whiteheads or blackheads. Effective chemical treatments are available, but acene can be persistent. Depending on its severity, it can cause emotional distress and scar the skin. A nonwoven sheet mask is a piece of paper, cellulose or fabric used to apply a facial mask. This skin care product facial beauty mask is designed to managing the skin from dryness, remove oil secretion or sebum, treating acene, wrinkles, whiteheads, blackheads and deeply clean the pores of the skin and removes impurities. To address these issues, the proposed work aims to manage the skin complications by using natural substantial like kaolin clay, Artemisia Pallens.L, and others finished on spun lace nonwoven textile material. The product is test for its anti-inflammation property and anti-microbial activity. The test microorganisms used in the study were E.coli, Staphylococcus aureus and Candida albicans. The effect of this herbal facial mask treatment results shows purifying, revitalizing and refreshing to the skin.

No. of Pages : 13 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :13/01/2024

(21) Application No.202441002670 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : FORMULATION AND EVALUATION OF ORGANIC LIP BALM USING BETA VULGARIS, ALOE BARBADENSIS MILLER AND CLITORIATERNATEA EXTRACTS

(51) International classification :A61Q0019000000, A61K0008920000, A61K0008670000, A61K0008980000, A61K0035644000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

In daily living, the lip balm is an essential component of the makeup and is utilized to keeps the lips hydrated and guards against dry and chapped lips. We so tried to make an organic lip balm using only natural ingredients. Beetroot, aloe vera, and butterfly pea blossoms were used to make lip balm. Every plant material underwent a phytochemical analysis; the findings were evaluated and included into the formulation. Beeswax, almond oil, honey, vitamin E capsules, and additional substances including preservatives were used to make the lip balm. The proper method was used to manufacture and evaluate the lip balm. Evaluations were done on pH, temperature, stability, spreadability, and viscosity, and the final product was formulated.

No. of Pages : 9 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :13/01/2024

(21) Application No.202441002673 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : DEVELOPMENT OF ANTI PESTICIDE FINISHED JUTE APRON FOR FARMERS

(51) International classification :A61B0017322000, A61P0017000000, A61B0005110000, A61K0031045000, A61B0005010000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Since most farmers view skin conditions as part of their job, they are typically neglected and disregarded. As far as organs go, the human skin is the biggest, it performs a variety of vital tasks. Contact dermatitis, whether allergic or irritating, additionally serves as a common cause of dermatome linked to pesticides. Understanding the risks and how to avoid illness or injury to the skin is crucial. Farmers can conceal their front and back parts of their bodies by wearing jute aprons over other clothes. Jute is an anti-bacterial fiber that is 100% biodegradable, one of the greenest materials available, and effective against pesticides and other harmful substances.

No. of Pages : 7 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :13/01/2024

(21) Application No.202441002674 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : DEVELOPMENT AND STANDARDIZATION OF VALUE ADDED DIP FROM RED BANANA PEEL POWDER FOR OBESITY

(51) International classification :A23D0009007000, A61K0036880000, A61P0003040000, A23L0033000000, A21D0002360000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr.NGP Arts and Science College Address of Applicant :Dr.NGP Arts & Science College Dr. NGP Nagar –Kalapatti, Coimbatore 641048 Coimbatore ----- ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)U.Rasikha Address of Applicant :Dr.NGP Arts & Science College Dr. NGP Nagar –Kalapatti, Coimbatore 641048 Coimbatore ----- ----- 2)B. Kaviya Address of Applicant :Dr.NGP Arts & Science College Dr. NGP Nagar –Kalapatti, Coimbatore 641048 Coimbatore ----- ----- 3)Dr. D. Sridevi Address of Applicant :Dr.NGP Arts & Science College Dr. NGP Nagar –Kalapatti, Coimbatore 641048 Coimbatore ----- ----- 4)S. Madumitha Address of Applicant :Dr.NGP Arts & Science College Dr. NGP Nagar –Kalapatti, Coimbatore 641048 Coimbatore ----- -----

(57) Abstract :

Red banana peel is a good source of various phenolic compounds, which are natural antioxidants beneficial for health. red banana peel had higher concentration of phenolic compounds, flavonoids, anthocyanins and antioxidants than yellow varieties. This study aims to develop alternative to fat-based dip for obesity as the red banana peel is low in fat. The products were prepared in three variations and undergone sensory evaluation with a panel of 30 trained and semi trained panel members with 9-point hedonic scale to standardize the best among three variations. The red banana peel was analysed with the physiochemical parameters like moisture and ash and analysed with the nutrients like energy, carbohydrates, protein, fats, fibre and iron. The red banana peel powder was high in fibre and iron and also the red banana peel powder was low in fat. The developed value-added dip was labelled and the cost of the dip was calculated.

No. of Pages : 13 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002680 A

(19) INDIA

(22) Date of filing of Application :13/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : DEVELOPMENT OF INSTANT SOUP MIX COMPRISING SPROUTED WHEAT AND TRIGONELLA FOENUM-GRAECUM LEAVES

(51) International classification :A61K0036480000, A23L0033105000, A23L0023100000, A23L0033160000, A23L0025000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr. NGP Arts and Science College Address of Applicant :Dr. NGP Arts and Science College, Dr. NGP Nagar – Kalapatti, Coimbatore - 641048. Coimbatore ----- ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Ms. G. Priyaalini Address of Applicant :Assistant Professor, Department of Food Science and Nutriron, Dr. NGP Arts and Science College, Dr. NGP Nagar – Kalapatti, Coimbatore - 641048. Coimbatore ----- ----- 2)Gomathy S Address of Applicant :III B.Sc. FSN Department of Food Science and Nutriron, Dr. NGP Arts and Science College, Dr. NGP Nagar – Kalapatti, Coimbatore - 641048. Coimbatore ----- ----- 3)Ms. Anjali M Address of Applicant :Assistant Professor, Department of Food Science and Nutriron, Dr. NGP Arts and Science College, Dr. NGP Nagar – Kalapatti, Coimbatore - 641048. Coimbatore ----- ----- 4)Mrs. U. Rasikha Address of Applicant :Assistant Professor, Department of Food Science and Nutriron, Dr. NGP Arts and Science College, Dr. NGP Nagar – Kalapatti, Coimbatore - 641048. Coimbatore ----- -----

(57) Abstract :

The present invention relates to an innovative instant soup mix formulated with a combination of sprouted wheat and fenugreek leaves, offering enhanced nutritional value, flavor, and convenience. The sprouting of wheat contributes to heightened levels of bioactive compounds, increased nutrient availability, and improved digestibility. This innovative method leverages the enzymatic activity during the sprouting process to enhance the nutritional profile of the soup mix, resulting in higher concentrations of essential vitamins, minerals, and bioactive compounds. Incorporation of fenugreek leaves brings a unique blend of flavors and additional health benefits. Fenugreek is known for its rich content of dietary fiber, antioxidants, and various bioactive compounds. The combination of sprouted wheat and fenugreek leaves not only enhances the taste but also augments the overall nutritional content of the instant soup mix.

No. of Pages : 11 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :13/01/2024

(21) Application No.202441002682 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : IGNITION CONTROL ON ECU USING FINGER PRINT AND DRIVING LICENSE SCANNING

(51) International classification :B60R0025040000, B60R0025250000, G07C0009250000, G08G0001017000, F02D0041000000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
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(57) Abstract :

Ignition Control on ECU using Finger print and DL scanning serves as one of the upgradations of the ongoing public issues with their automobiles. A continuous supervision against traffic violations such as theft, underage driving and the need to scrutinize the presence of valid documents asks for constant monitoring and work pressure. To compensate this time and work pressure the innovation aims to provide solution to reduce this freight. To accomplish this idea is to scan the fingerprint and DL of the rider in order to start the ignition. In other words, we access the biometric information and check the identity of the person to start the ignition. Now, to implement this task to reality we integrate the biometric scanners with the Engine Control Unit. Thus, giving access to particular users. The objective of the innovation is to understand various ways ignition of system is controlled by ECU and providing solution to society insecurities like vehicular theft, eliminating time consumed for field rectification of DL, also providing a boon to government economy since all traffic regulations to carry DL and its rectification is done by software alongside whose information is provided to Inspection department through servers as witnessed in GSM technology.

No. of Pages : 12 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002722 A

(19) INDIA

(22) Date of filing of Application :13/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : MULTI-LAYER SECURITY SYSTEM FOR AUTHENTICATING USERS AND FACILITATING BANKING SERVICES, AND METHOD THEREOF

(51) International classification	:G06Q0040020000, G07F0019000000, G06Q0020400000, G06F0003048860, G06F0021310000	(71)Name of Applicant : 1)VELLORE INSTITUTE OF TECHNOLOGY, CHENNAI Address of Applicant :Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number	:NA	1)KALAIVANAN K
Filing Date	:NA	Address of Applicant :School of Electronics Engineering, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai -----
(62) Divisional to Application Number	:NA	2)VETRIVELAN P
Filing Date	:NA	Address of Applicant :School of Electronics Engineering, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai -----

(57) Abstract :

The present disclosure relates to a multi-layer security system for authenticating users and facilitating banking services. The system (102) monitors user located within proximity of automated teller machine (302) by monitoring module (212) through image capturing unit (303), receives face position images of user from image capturing unit (304), and drag and drop pin from virtual keyboard (402) by authentication module (214), authenticate face position images, drag and drop pin of user by authentication module (214), authentication module (214) compares plurality of face position images, drag and drop pin with user information, retrieve account information from server (110) by retrieving module (216), generate secure personal identification number (PIN) by generating module (218) upon initiating banking service by user, enable user to enter secure pin on biometric recognition unit (314) by authentication module (214), authentication module (214) authenticate biometrics of user with user information, and facilitates banking service to user.

No. of Pages : 29 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002724 A

(19) INDIA

(22) Date of filing of Application :13/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SYSTEM AND METHOD FOR ENABLING A MODIFIED MULTILEVEL MESHFREE TECHNIQUE

(51) International classification	:G06F0011340000, G11C0011560000, H02M0007487000, A61B0005055000, H04L0025030000	(71)Name of Applicant : 1)VIT-AP University Address of Applicant :Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor : 1)NIKUNJA BIHARI BARIK Address of Applicant :Assistant Professor, VIT-AP University, Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati --
(61) Patent of Addition to Application Number	:NA	-----
Filing Date	:NA	2)T.V.S. SEKHAR Address of Applicant :Professor, Indian Institute of Technology Bhubaneswar, Argul, Khordha - 752050, Odisha, India. Bhubaneswar -----
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

Embodiments of the present disclosure relates to a system (102) and method (200) for applying a modified multilevel meshfree technique for solving a steady convection-diffusion problem. The system (102) comprises a processor (104) coupled to a memory (106). The memory (106) stores processor-executable instructions. The processor (104) is configured to apply a modified multilevel augmented local Radial Basis Function (RBF-FD) meshfree algorithm to the steady convection-diffusion problem. The modified multilevel augmented local RBF-FD meshfree algorithm makes the RBF-FD method effective and efficient by considering different levels which contains finer and coarser levels in the same domain and by transferring (restrict or prolongate) the residue/ error/ solution from finer to coarser or vice-versa or both after executing in each level. The modified multilevel augmented local RBF-FD meshfree algorithm saves 56% of the CPU time for the 2D convection-diffusion problem and at least 86% of the CPU time for coupled non-linear equations.

No. of Pages : 20 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002725 A

(19) INDIA

(22) Date of filing of Application :13/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SMART SYSTEM AND METHOD FOR ENABLING REAL-TIME ASSESSMENT OF CONTENTS IN DOCUMENT

(51) International classification	:G06N0020000000, G06Q0010060000, G16H0050200000, G06N0003080000, A61B0005110000	(71)Name of Applicant : 1)VIT-AP University Address of Applicant :Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number	:NA	1)LALITHA MANASA CHANDRAPATI
Filing Date	:NA	Address of Applicant :Scholar, SCOPE, VIT-AP University, Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati --
(62) Divisional to Application Number	:NA	-----
Filing Date	:NA	2)KOTESWARARAO CH
		Address of Applicant :Assistant Professor Sr. Grade 1, SCOPE, VIT-AP University, Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati -----

(57) Abstract :

Present disclosure relates a smart system (102) and method for enabling real-time assessment of contents in document. System (102) receives one or more data packets from at least one computing device associated with the at least one user. The one or more data packets pertains to one or more documents (304). System (102) extracts and analyzes the one or more parameters from the one or more documents in real-time. The one or more parameters comprises at least one of a title, an abstract, and a literature review. System (102) pre-process the one or more parameters based on at least one data learning techniques on to evaluate the contents in the one or more documents. System (102) predicts one or more stages based on the one or more parameters and compute one or more scores to enable real-time assessment of the contents in the one or more documents (304).

No. of Pages : 29 No. of Claims : 10

(54) Title of the invention : A SORTING, CATEGORIZING, AND TAGGING SYSTEM

(51) International classification :G06Q0030020000, G06F0016580000, G06F0040197000, A61M0039020000, G06Q0030000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)MATRUSRI ENGINEERING COLLEGE Address of Applicant :Matrusri Engineering College, 16-1-486, Saidabad Rd, DBR Enclave, Sapota Bagh, New Malakpet, Hyderabad-500059, Telangana. HYDERABAD ----- - Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr J.Srinivas Address of Applicant :Associate Professor, IT, Matrusri Engineering College, 16-1-486, Saidabad Rd, DBR Enclave, Sapota Bagh, New Malakpet, Hyderabad-500059, Telangana. HYDERABAD ----- 2)Dr Ch.Ramesh Babu Address of Applicant :Associate Professor, IT, Matrusri Engineering College, 16-1-486, Saidabad Rd, DBR Enclave, Sapota Bagh, New Malakpet, Hyderabad-500059, Telangana. HYDERABAD ----- 3)Mrs T Arunajyothi Address of Applicant :Assistant Professor, IT, Matrusri Engineering College, 16-1-486, Saidabad Rd, DBR Enclave, Sapota Bagh, New Malakpet, Hyderabad-500059, Telangana. HYDERABAD -----

(57) Abstract :
TITLE: A SORTING, CATEGORIZING, AND TAGGING SYSTEM 7. ABSTRACT The invention includes a user-friendly interface that allows users to contribute various data types, such as photos, reviews, ratings, and location information, related to local businesses. The system automatically categorizes and tags the contributed data, continually improving its accuracy over time. Data collection mechanism (102) ensures the quality and accuracy of the data, while user feedback and flagging features facilitate continuous improvement. This invention also encompasses a computer system with a powerful search and recommendation engine (108) based on tagged data, offering users personalized and relevant results. Moreover, a mobile application (202) and web platform (204) provided for convenient access for users to contribute, categorize, and retrieve data on-the-go and from various devices. With gamification and rewards for active contributors, the system fosters user engagement and participation. The Privacy policies (112) and user consent mechanisms are in place to safeguard user data and adhere to relevant legal and ethical considerations. The Figure associated with the abstract is Fig. 1

No. of Pages : 14 No. of Claims : 8

(54) Title of the invention : A COMPUTER-IMPLEMENTED SYSTEM FOR EVALUATING WEBSITES BASED ON USER OPINIONS AND SENTIMENTS

(51) International classification :G06Q0030020000, G06F0016245700, G06F0040300000, G06F0016480000, G06F0016951000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)MATRUSRI ENGINEERING COLLEGE Address of Applicant :16-1-486, SAIDABAD RD, DBR ENCLAVE, SAPOTA BAGH, NEW MALAKPET, HYDERABAD-500059, TELANGANA hyderabad ----- ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)G Shyama Chandra Prasad Address of Applicant :Professor, IT Matrusri Engineering College, 16-1-486, Saidabad Rd, DBR Enclave, Sapota Bagh, New Malakpet, Hyderabad-500059, Telangana. hyderabad ----- ----- 2)Mr. V Gopinath Address of Applicant :Assistant Professor, IT, Matrusri Engineering College, 16-1-486, Saidabad Rd, DBR Enclave, Sapota Bagh, New Malakpet, Hyderabad-500059, Telangana. hyderabad ----- ----- 3)Mrs M.Srividya Address of Applicant :Assistant Professor, IT, Matrusri Engineering College, 16-1-486, Saidabad Rd, DBR Enclave, Sapota Bagh, New Malakpet, Hyderabad-500059, Telangana. hyderabad ----- -----

(57) Abstract :
TITLE: A COMPUTER-IMPLEMENTED SYSTEM AND METHOD FOR EVALUATING WEBSITES BASED ON USER OPINIONS AND SENTIMENTS 7. ABSTRACT An integrated sentiment analysis and rating system designed to empower users with informed evaluations of websites and brands is disclosed. This system (102) features a user interface module for the submission of user opinions, ensuring credibility through authentication. The sentiment analysis module (104) employs advanced algorithms to extract sentiment-bearing phrases, classifying them into positive, negative, or neutral categories using a Sentiment Keywords Database. Through the rating generation module (106), sentiment analysis outputs and sentiment scores combine to calculate sentiment-based ratings. The data extraction module gathers additional information via web scraping, refined by a data analysis module (108) to enhance rating accuracy. A comparison module (110) ranks websites based on these ratings, and a user interface module (112) presents intuitive displays of sentiment-based ratings. The feedback update module (114) periodically refreshes the database, perpetuating a cycle of user interaction, sentiment analysis, rating generation, comparison, and improvement. Figure associated with Abstract is Fig. 1

No. of Pages : 20 No. of Claims : 10

(54) Title of the invention : FACE DETECTION AND IDENTIFICATION IN NETWORKED VIDEO SURVEILLANCE SYSTEMS

(51) International classification	:H04N0007180000, G08B0013196000, H04N0005232000, G16H0030200000, G10L0015180000	(71)Name of Applicant : 1)MATRUSRI ENGINEERING COLLEGE Address of Applicant :MATRUSRI ENGINEERING COLLEGE,16-1-486, SAIDABAD RD, DBR ENCLAVE, SAPOTA BAGH, NEW MALAKPET, HYDERABAD-500059, TELANGANA. Hyderabad -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number	:NA	1)Dr K Sunil Manohar Reddy
Filing Date	:NA	Address of Applicant : Associate Professor, CSE, Matrusri Engineering College, 16-1-486, Saidabad Rd, DBR Enclave, Sapota Bagh, New Malakpet, Hyderabad-500059, Telangana. HYDERABAD -----
(62) Divisional to Application Number	:NA	2)Mr A V Murali Krishna
Filing Date	:NA	Address of Applicant :MATRUSRI ENGINEERING COLLEGE,16-1-486, SAIDABAD RD, DBR ENCLAVE, SAPOTA BAGH, NEW MALAKPET, HYDERABAD-500059, TELANGANA. HYDERABAD -----
		3)Mr P Siva
		Address of Applicant :Assistant Professor, CSE, Matrusri Engineering College, 16-1-486, Saidabad Rd, DBR Enclave, Sapota Bagh, New Malakpet, Hyderabad-500059, Telangana. HYDERABAD -----

(57) Abstract :
7. ABSTRACT A face detection and identification in networked video surveillance is disclosed, comprising of a face detection and identification system (100) for networked video surveillance wherein an image processing module (102) configured to perform analysis on both video streams and still images. The system (100) utilizes hardware components (104) including IP cameras (110) and Raspberry Pi (112) utilized for real-time processing. The system (100) further works through integration (106) with the open-source Open CV library facilitating advanced image processing functionalities. Pluralities of proprietary algorithms were installed for real-time identification (108) of human faces. The system (100) also comprises of swift response capabilities (114) ensuring timely identification within live video feeds and adaptive learning algorithms (116) were designed to enhance identification accuracy by continuously refining performance across diverse scenarios. A mechanism to incorporate feedback (118) from identified faces to iteratively improve future identification accuracy. The figure associated with the abstract is Fig. 1.

No. of Pages : 15 No. of Claims : 8

(54) Title of the invention : MULTI-LEVEL IMAGE AUTHENTICATION SYSTEM WITH PASSWORDS

(51) International classification :G06T0001000000, H04L0009080000, H04L0009320000, G06F0021620000, G06F0021360000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)MATRUSRI ENGINEERING COLLEGE Address of Applicant :16-1-486, SAIDABAD RD, DBR ENCLAVE, SAPOTA BAGH, NEW MALAKPET, HYDERABAD-500059, TELANGANA. hyderabad ----- ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr L Raghavendra raju Address of Applicant :Assistant Professor, CSE, Matrusri Engineering College, 16-1-486, Saidabad Rd, DBR Enclave, Sapota Bagh, New Malakpet, Hyderabad-500059, Telangana. hyderabad ----- 2)Mr P Ravindra Address of Applicant :Assistant Professor, CSE, Matrusri Engineering College, 16-1-486, Saidabad Rd, DBR Enclave, Sapota Bagh, New Malakpet, Hyderabad-500059, Telangana. hyderabad ----- 3)Mr Bikshapathy Perala Address of Applicant :Assistant Professor, CSE, Matrusri Engineering College, 16-1-486, Saidabad Rd, DBR Enclave, Sapota Bagh, New Malakpet, Hyderabad-500059, Telangana. hyderabad -----

(57) Abstract :
TITLE: MULTI-LEVEL IMAGE AUTHENTICATION SYSTEM WITH PASSWORDS 6. ABSTRACT The Multi-Level Image Authentication System with Passwords (MLIASP) (101, 201) is a secure solution for image authentication. It embeds encrypted passwords (109) using steganography (103, 105) while preserving image integrity. The Image Password Embedder (101) generates cryptographic keys (107) from user passwords (105) and securely embeds them into images (103). The Image Password Verifier (201) extracts and decrypts embedded passwords (207) for authentication, ensuring image authenticity. Implemented in various programming languages, MLIASP offers a user-friendly web interface for accessibility. It protects images from unauthorized access and tampering, safeguarding sensitive data in the digital age. Figure associated with Abstract is Fig.1

No. of Pages : 17 No. of Claims : 10

(54) Title of the invention : A SYSTEM FOR LOCATION-BASED INTERACTION AND SITUATIONAL AWARENESS THROUGH GEOFENCING TECHNOLOGY

(51) International classification	:H04W0004021000, H04W0004020000, H04W0004029000, H04W0004900000, H04L0012280000	(71)Name of Applicant : 1)MATRUSRI ENGINEERING COLLEGE Address of Applicant :Matrusri Engineering College, 16-1-486, Saidabad Rd, DBR Enclave, Sapota Bagh, New Malakpet, Hyderabad-500059, Telangana. HYDERABAD -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number	:NA	1)Dr M Naresh Address of Applicant :Associate Professor, ECE, Matrusri Engineering College, 16-1-486, Saidabad Rd, DBR Enclave, Sapota Bagh, New Malakpet, Hyderabad-500059, Telangana. HYDERABAD -----
Filing Date	:NA	2)Ravikumar Reddy Address of Applicant :Associate Professor, ECE, Matrusri Engineering College, 16-1-486, Saidabad Rd, DBR Enclave, Sapota Bagh, New Malakpet, Hyderabad-500059, Telangana. HYDERABAD -----
(62) Divisional to Application Number	:NA	3)A Narmada Address of Applicant :Associate Professor, ECE, Matrusri Engineering College, 16-1-486, Saidabad Rd, DBR Enclave, Sapota Bagh, New Malakpet, Hyderabad-500059, Telangana. HYDERABAD -----
Filing Date	:NA	

(57) Abstract :
TITLE: A SYSTEM FOR LOCATION-BASED INTERACTION AND SITUATIONAL AWARENESS THROUGH GEOFENCING TECHNOLOGY 7.ABSTRACT A system (100) for location-based interaction and situational awareness through geofencing technology is disclosed, comprising of a mobile application (102) with a user interface allowing users to define virtual boundaries on digital maps to create geofences around specific geographic areas. The system (100) utilizes global positioning system (GPS) technology (104) to continuously track the geographic location of a user's mobile device in real-time. Wherein detecting the user's entry or exit (106) from a defined geofenced area based on changes in the mobile device's GPS coordinates. The system (100) also capable of transmitting notifications (108) to the user's mobile device upon the user's entry or exit from the geofenced area, presenting contextual information or actions relevant to the specific location. Integrating emergency services alerts into the system thus offering real-time traffic updates (112), route suggestions, and alternate paths to the user's mobile device. The figure associated with the abstract is Fig. 1.

No. of Pages : 16 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002744 A

(19) INDIA

(22) Date of filing of Application :13/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : INTELLIGENT FOOD ANALYSIS SYSTEM: DEEP LEARNING FOR ACCURATE DIETARY ASSESSMENT AND HEALTH INFORMATICS

(51) International classification	:G09B0019000000, G06Q0050120000, G16H0020600000, A47G0021040000, G16H0020300000	(71)Name of Applicant : 1)Mr. B.Kali Vara Prasad Address of Applicant :Assistant Professor, Dept.of ECE,KL University, Vaddeswaram, Guntur, AP, INDIA-522302 ----- -
(86) International Application No	:NA	-----
Filing Date	:NA	2)Dr.MVD Prasad
(87) International Publication No	: NA	Name of Applicant : NA
(61) Patent of Addition to Application Number	:NA	Address of Applicant : NA
Filing Date	:NA	(72)Name of Inventor :
(62) Divisional to Application Number	:NA	1)Mr. B.Kali Vara Prasad
Filing Date	:NA	Address of Applicant :Assistant Professor, Dept.of ECE,KL University, Vaddeswaram, Guntur, AP, INDIA-522302 ----- -

		2)Dr.MVD Prasad
		Address of Applicant :Associate Professor, Dept.of ECE,KL University, Vaddeswaram, Guntur, AP, INDIA-522302 ----- -

(57) Abstract :

This invention introduces an intelligent system that uses powerful computer technology to help people understand the calories in their food more accurately. The system, like a smart assistant, can recognize different types of food, figure out how much is on the plate, and calculate the calories. It's like having a helpful tool for managing what we eat and staying healthy. Traditional ways of keeping track of what we eat can be hard and might not always be right. This system makes it easy for everyone. It's not just about knowing what's on your plate; it's about making sure we understand how it affects our health. The goal of this invention is to provide a friendly and precise way for people to manage their diet. It's like having a health partner that uses smart technology to give us the right information about our food. By using deep learning, the system takes a big step forward in making sure our dietary assessments are accurate and can help us stay informed about our health. In essence, the Intelligent Food Analysis System aims to make healthy living simpler by using smart technology to guide us in understanding and managing what we eat.

No. of Pages : 12 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002745 A

(19) INDIA

(22) Date of filing of Application :13/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : REAL-TIME ENERGY MONITORING AND CONTROL SYSTEM WITH IOT-ENABLED SMART DEVICES

(51) International classification :G06Q0050060000, G06Q0010040000, H02J0013000000, G05B0015020000, G06Q0030020000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(72)Name of Inventor :

1)Mr. Kiran Thatikonda

Address of Applicant :Industry Principal Director, Accenture, 26903, Lindenwood Creek Ln, Katy, Texas, Pin: 77494, Texas, USA. -----

(57) Abstract :

The invention discloses a Real-time Energy Monitoring and Control System with IoT-enabled Smart Devices, providing a sophisticated solution for dynamic energy management. At its core, the system features a centralized control unit orchestrating a network of interconnected smart meters, sensors, actuators, and IoT-enabled appliances. Leveraging advanced algorithms, the central control unit optimizes energy consumption in real-time, considering historical data, user preferences, and external factors. The system incorporates predictive maintenance, demand response integration, and security-enhanced measures, enhancing its adaptability and user-centric functionality. With features such as grid anomaly detection and response and dynamic energy pricing optimization, the invention represents a comprehensive approach to sustainable energy practices, empowering users to actively engage with and optimize their energy consumption patterns.

No. of Pages : 19 No. of Claims : 10

(54) Title of the invention : AN INVESTIGATION IN HUMAN RESOURCE ANALYTICS INVOLVING THE IMPACT ON EMPLOYEE TURNOVER

(51) International classification :G06Q0010060000, G06Q0010100000, G06N0020000000, G06N0005040000, G06N0005020000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Ms. P. Anitha Address of Applicant :RUSA-Project Assistant & Ph.D (Full Time) Research Scholar, Department of Management Studies, Madurai Kamaraj University, Palkalai Nagar, Madurai, Pin: 625021, Tamilnadu, India. ----- 2)Dr. Zuleika Homavazir 3)Dr. Poyam Sharma 4)Dr. Mohammed Quadir Mohiuddin 5)Dr. Richa Srivastava 6)Dr. B. Rajarajeswari 7)Ms. Usha Pandey 8)Ms. Radha. T 9)Pavithra C. R. 10)Ms. A. Ammupriya 11)Dr. Harikumar Pallathadka Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Ms. P. Anitha Address of Applicant :RUSA-Project Assistant & Ph.D (Full Time) Research Scholar, Department of Management Studies, Madurai Kamaraj University, Palkalai Nagar, Madurai, Pin: 625021, Tamilnadu, India. ----- 2)Dr. Zuleika Homavazir Address of Applicant :Professor, Atlas Skill Tech University, Equinox Business Park, Ambedkar Nagar, Kurla West, Pin: 400070, Maharashtra, India. ----- 3)Dr. Poyam Sharma Address of Applicant :Associate Professor, Mangalmay Institute of Management and Technology, Plot no 8 & 9, Knowledge Park -2, Greater Noida, Gautam Buddh Nagar, Pin: 201306, Uttar Pradesh, India. ----- 4)Dr. Mohammed Quadir Mohiuddin Address of Applicant :Associate Professor, University of Technology and Applied Sciences, PO Box 466, Postal Code: 516, Ibri, Sultanate of Oman. ----- 5)Dr. Richa Srivastava Address of Applicant :Assistant Professor, School of Business Management, Noida International University, Greater Noida, Plot No.1, Sector 17 A, Yamuna Expressway, Greater Noida, Pin: 203201, Uttar Pradesh, India. ----- 6)Dr. B. Rajarajeswari Address of Applicant :Assistant Professor, Department of Business Administration, Tiruppur Kumaran College for Women, S.R.Nagar, Mangalam Road, Tirupur, Pin: 641687, Tamilnadu, India. ----- 7)Ms. Usha Pandey Address of Applicant :Assistant Professor, IAMR, Ghaziabad, Pin: 201006, Uttar Pradesh, India. ----- 8)Ms. Radha. T Address of Applicant :Assistant Professor, St. Clare College, Jalahalli, Bangalore, Pin: 560013, Karnataka, India. ----- 9)Pavithra C. R. Address of Applicant :Assistant Professor, Dr. SNS Rajalakshmi College of Arts and Science, Saravanampatti, Coimbatore, Pin: 641034, Tamil Nadu, India. ----- 10)Ms. A. Ammupriya Address of Applicant :Assistant Professor, St. Joseph College of Engineering, Chennai, Pin: 600119, Tamil Nadu, India. ----- 11)Dr. Harikumar Pallathadka Address of Applicant :Director and Professor, Manipur International University, Ghari, Imphal, Imphal West, Pin: 795140, Manipur, India. -----

(57) Abstract :
The disclosed invention presents a computer-implemented system and method revolutionizing human resource analytics by focusing on predicting and managing employee turnover within organizations. Through a comprehensive approach, the system employs a data collection module to gather diverse human resource data, a data processing engine with advanced machine learning algorithms for insightful analysis, and a turnover prediction module that utilizes predictive modeling. Additionally, a risk assessment module identifies high-risk areas, and a recommendation engine generates actionable strategies. With an intuitive user interface, the invention empowers organizational stakeholders with precise insights, enabling proactive decision-making to enhance workforce retention strategies and cultivate a stable, engaged, and productive environment.

No. of Pages : 18 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002750 A

(19) INDIA

(22) Date of filing of Application :13/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : HUMAN RESOURCE ANALYTICS: A STRATEGY FOR OPTIMISING YOUR ORGANISATION'S MOST VALUABLE ASSET

(51) International classification :G06Q0010060000, G06Q0010100000, G06N0020000000, G16H0050200000, G06Q0010000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
The disclosed invention revolutionizes human resource management by introducing a comprehensive system that leverages advanced data processing and analytics to optimize organizational performance. Through a sophisticated data collection module, the system extracts diverse human resource data, including employee performance metrics, engagement levels, and training histories. An advanced analytics engine, powered by machine learning algorithms, processes this data to identify patterns and correlations, enabling the system to offer actionable insights. The intuitive decision support interface facilitates strategic decision-making by presenting these insights to decision-makers, while predictive modeling capabilities forecast future workforce trends. With scalability, adaptability, and a strong focus on security and compliance, the invention represents a paradigm shift, empowering organizations to proactively manage and develop their workforce in the dynamic landscape of modern business.

No. of Pages : 18 No. of Claims : 6

(54) Title of the invention : AUTOMATED AGRICULTURAL HARVESTING ROBOT WITH ADAPTIVE GRIPPING MECHANISM

(51) International classification :A01B0079000000, G06Q0050020000, A01D0046300000, A01C0014000000, G06Q0010060000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Dr. M V Ramesh Address of Applicant :Professor, Department of Mechanical Engineering, Sri Vasavi Engineering College, Tadepaligudem, 534101, Andhra Pradesh ----- 2)Mr. KSBSVS Sastry 3)Mr. S.Chandra Sekhar 4)Dr. K.Dorathi Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. M V Ramesh Address of Applicant :Professor, Department of Mechanical Engineering, Sri Vasavi Engineering College, Tadepaligudem, 534101, Andhra Pradesh ----- 2)Mr. KSBSVS Sastry Address of Applicant :Associate Professor, Department of Mechanical Engineering, Sri Vasavi Engineering College, Tadepaligudem, 534101, Andhra Pradesh ----- 3)Mr. S.Chandra Sekhar Address of Applicant :Assistant Professor, Department of Mechanical Engineering, Sri Vasavi Engineering College, Tadepaligudem, 534101, Andhra Pradesh ----- 4)Dr. K.Dorathi Address of Applicant :Associate Professor, Department of Mechanical Engineering, Sri Vasavi Engineering College, Tadepaligudem, 534101, Andhra Pradesh -----

(57) Abstract :
The proposed invention introduces an Automated Agricultural Harvesting Robot with an Adaptive Gripping Mechanism, revolutionizing the farming industry. This robotic system, equipped with advanced sensors and cameras, autonomously navigates agricultural fields, identifying and selectively harvesting ripe crops while minimizing damage. Its adaptive gripping mechanism adjusts to the crop's type, size, and fragility, ensuring gentle and efficient harvesting. The integration of computer vision technology allows real-time crop recognition, enhancing precision. This innovation addresses critical agricultural challenges, including labor shortages, post-harvest losses, and environmental sustainability. By reducing waste, decreasing chemical usage, and operating continuously, day and night, it improves productivity and contributes to environmentally friendly farming practices. Moreover, it makes farming more appealing to a tech-savvy younger generation, potentially revitalizing rural communities and enhancing global agricultural competitiveness. This invention aligns with the demand for sustainable, eco-friendly products and underscores the pivotal role of technology in shaping the future of agriculture.

No. of Pages : 22 No. of Claims : 10

(54) Title of the invention : METHOD OF PREPARATION OF TETRANARY BLENDED NANO CONCRETE: AN APPROACH TO HIGH EARLY STRENGTH CONCRETE

(51) International classification :C04B0103300000, C04B0028020000, G06Q0010060000, C04B0040000000, H01M0004130000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
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(62) Divisional to Application Number :NA
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(57) Abstract :

The invention discloses a novel method for producing high early strength concrete, aiming to enhance the strength and durability characteristics of the resulting material. The method employs a composition comprising 25% fly ash, 10% alccofine, and varying percentages (0.5%, 1%, 2%, and 3%) of colloidal nano silica in relation to the weight of cement, all formulated at a water-binder ratio of 0.30. This innovative approach is illustrated in Figure 1, presenting a comprehensive flowchart detailing the production process of high early strength concrete utilizing fly ash, alccofine, and colloidal nano silica. The inventive method offers a promising solution for advancing the properties of concrete, addressing the need for high early strength and durability.

No. of Pages : 18 No. of Claims : 2

(54) Title of the invention : IOT-ENHANCED SECURE DATA ENCRYPTION AND TRANSMISSION FOR NEXT-GENERATION COMPUTING ENVIRONMENTS

(51) International classification :H04L0009080000, G06F0021600000, H04L0009140000, G06N0020000000, H04L0027260000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No :NA
(61) Patent of Addition to :NA
Application Number :NA
Filing Date :NA
(62) Divisional to Application :NA
Number :NA
Filing Date :NA

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(57) Abstract :
The present invention presents an innovative solution for IoT-Enhanced Secure Data Encryption and Transmission in Next-Generation Computing Environments. Leveraging the capabilities of the Internet of Things (IoT), the system dynamically adapts encryption algorithms based on the unique characteristics of detected devices, establishing secure communication channels and monitoring data integrity. The central processing unit intelligently integrates IoT devices, incorporates adaptive encryption algorithms, and employs a secure key management module to optimize security and compatibility across diverse computing environments. Additional embodiments introduce features such as dynamic resource allocation for encryption optimization and machine learning-based anomaly detection, further enhancing the system's efficiency and resilience in the face of the dynamic and interconnected landscape of modern computing. This invention sets a new standard for securing sensitive data, ensuring confidentiality, integrity, and authenticity in next-generation computing environments.

No. of Pages : 17 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002894 A

(19) INDIA

(22) Date of filing of Application :15/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN APPARATUS FOR AUTOMATIC PROCESSING OF PROSTHETICS AND A METHOD THEREOF

(51) International classification :B22C0009040000, H01L0021020000, C10G0045640000, A61B0005000000, H04L0027260000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Manipal Academy of Higher Education Address of Applicant :Madhav Nagar, Manipal, 576104, Karnataka, India. Manipal ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)SINGH, Aman Pratap Address of Applicant :Intern, Manipal College of Dental Sciences, Manipal Academy of Higher Education, Manipal, 576104, Karnataka, India. Manipal ----- 2)S, Pradeep Address of Applicant :Professor and HOD, Department of Prosthodontics and Crown and Bridge, Manipal College of Dental Sciences, Manipal Academy of Higher Education, Manipal, 576104, Karnataka, India. Manipal ----- 3)ERAM, Afiya Address of Applicant :Assistant Professor, Department of Conservative Dentistry and Endodontics, Manipal College of Dental Sciences, Manipal Academy of Higher Education, Manipal, 576104, Karnataka, India. Manipal ----- 4)ZUBER, Mohammad Address of Applicant :Professor, Department of Aeronautical and Automobile Engineering, Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal, 576104, Karnataka, India. Manipal ----- 5)KENI, Laxmikant G Address of Applicant :Assistant Professor, Department of Aeronautical and Automobile Engineering, Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal, 576104, Karnataka, India. Manipal -----

(57) Abstract :

Embodiments of the present disclosure provide an apparatus (100) and a method (200) for automatic processing of one or more prosthetics. The apparatus (100) can include a flask containing one or more prosthetic molds and configured to be accommodated in a dewaxing chamber (102) and then, in a curing chamber (104) and a control unit (106) in connection with the dewaxing chamber (102) and the curing chamber (104). The method (200) may comprise the steps of: placing (210), the flask into a dewaxing chamber (102); performing (220), dewaxing of the one or more prosthetic molds within the dewaxing chamber (102); lifting and placing (230), the flask from the dewaxing chamber (102) into a curing chamber (104); and performing (240), curing of the one or more prosthetic molds within the curing chamber (104) based upon one or more desired curing parameters.

No. of Pages : 24 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :15/01/2024

(21) Application No.202441002895 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : SURGICAL TRAINER DEVICE

(51) International classification :A61B0017000000, A63B0021000000, G06F0009500000, A63B0023120000, A63B0021060000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present disclosure relates generally to field of medical instruments. More specifically the present disclosure relates to a surgical trainer device. The device (100) includes a housing (102), one or more handles (104) comprising atleast one set of primary handles (104-A) and atleast one set of secondary handles (104-B) and an instrument portion (106) to perform a surgical procedure. The primary handles (104-A) and the secondary handles (104) are provided for shared control between a trainer and a trainee to perform the surgical procedure, allowing the trainee to work under the control of the trainer. Advantageously the present invention relates to a surgical trainer device that enables both the trainee and the trainer to use the instrument simultaneously, thereby providing tactile sensation and memory while giving full control to the trainer when required.

No. of Pages : 18 No. of Claims : 9

(54) Title of the invention : SYSTEM AND METHOD FOR NAVIGATING AUTOMATED GUIDED VEHICLE BY GENERATING LANE-MAP TO OPTIMIZE LOGISTICS DELIVERY

(51) International classification :G05D0001020000, G06Q0010080000, G06T0007130000, G05D0001000000, G06Q0020380000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)VELLORE INSTITUTE OF TECHNOLOGY, CHENNAI Address of Applicant :Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India Chennai ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)ROHITH G Address of Applicant :Assistant Professor Senior, School of Electronics Engineering, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- 2)RAHUL NARASIMHAN A Address of Applicant :Assistant Professor Senior, School of Electronics Engineering, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- 3)ASHWIN SANTHOSH NAIR Address of Applicant :Student, School of Electronics Engineering, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- 4)NIVEDITHA SIVAN Address of Applicant :Student, School of Electronics Engineering, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai -----

(57) Abstract :
The present disclosure relates to a for navigating automated guided vehicle (302) by generating lane-map to optimize logistics delivery. The system (102) include processors (202); and memory (204) coupled to processors (202). The memory (204) stores instructions which when executed by processors (202) cause system (102) to monitor surface of environment by image capturing module (212), and enable image capturing unit (306-1) to capture lane images of surface. The system (102) converts lane images into grayscale format by conversion module (216) to enhance visual coherence and uniformity in lane images. The system (102) identifies edges from lane images by edge detection module (218) to recognize lane-markers. The system (102) extracts lanes by extraction module (220) based on lane-markers. The system (102) generates lane-map by generation module (222) based on lanes and navigate automated guided vehicle (302) to optimize a plurality of logistics delivery.

No. of Pages : 30 No. of Claims : 10

(54) Title of the invention : ULTRA-COMPACT COPLANAR WAVEGUIDE-FED ULTRA-WIDE BAND ANTENNA WITH CROSS-SHAPED SLOT STRUCTURE

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	:H01Q0001380000, H01Q0013100000, H01Q0001500000, H01Q0009040000, H01Q0001480000 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)VIT-AP University Address of Applicant :Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)JAIVERDHAN Address of Applicant :Assistant Professor Senior Grade-1, SENSE, VIT-AP University, Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati ----- 2)LAKHAN DEV SHARMA Address of Applicant :Associate Professor Senior Grade-2, SENSE, VIT-AP University, Inavolu, Amaravati, Andhra Pradesh - 522237, India. Amaravati -----

(57) Abstract :
A coplanar waveguide fed ultra-wide band antenna 100 can include a ground metallic plane 102 configured with an integrated circular gap104; and a tuning element 106 embedded with a cross-shaped slot 108 such that the metallic plane 102 is configured over a substrate 110 made of a dielectric material, and the tuning element 106 generates circularly polarised wave pattern in Ka-band when a signal is fed for transmission through at least one feeding line 112 configured with the dielectric surface and coupled with the tuning element 106. The antenna 100 is with wide impedance bandwidth and a 3-dB axial ratio bandwidth ranging from 29.90 GHz to 37.75 GHz falling under Ka-band. The circular slot is configured to determine radiation characteristics and assist in enhancing more clean radiation pattern. The performance of the antenna 100 is tested using Ansys HFSS software shows a radiation efficiency of up to 89% and records a peak maximum gain up to 5dB.

No. of Pages : 16 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :15/01/2024

(21) Application No.202441002914 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A NON-INVASIVE SYSTEM FOR MONITORING GLUCOSE LEVELS IN A USER AND A METHOD THEREOF

(51) International classification :A61B0005145000, A61B0005000000, A61B0005145500, A61B0017000000, A61B0005021000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)SRM INSTITUTE OF SCIENCE AND TECHNOLOGY Address of Applicant :Kattankulathur, Chennai-603203, Tamil Nadu, India Chennai ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)ANGELINE KIRUBHA SAMUEL PAULRAJ Address of Applicant :Department of Biomedical Engineering, School of Bioengineering, College of Engineering and Technology, SRMIST, Kattankulathur, Chennai-603203, Tamil Nadu, India Chennai ----- 2)SAMEERA FATHIMAL MOHAMED ALI Address of Applicant :Department of Biomedical Engineering, School of Bioengineering, College of Engineering and Technology, SRMIST, Kattankulathur, Chennai-603203, Tamil Nadu, India Chennai ----- 3)JANARDANAN SUBRAMONIA KUMAR Address of Applicant :Department of General Medicine, SRM Medical College Hospital and Research Centre, SRMIST, Kattankulathur, Chennai-603203, Tamil Nadu, India Chennai ----- 4)JEYA PRABHA ALAGARSAMY Address of Applicant :Department of Biomedical Engineering, School of Bioengineering, College of Engineering and Technology, SRMIST, Kattankulathur, Chennai-603203, Tamil Nadu, India Chennai ----- 5)JOTHIRAJ SELVARAJ Address of Applicant :Department of Biomedical Engineering, School of Bioengineering, College of Engineering and Technology, SRMIST, Kattankulathur, Chennai-603203, Tamil Nadu, India Chennai -----

(57) Abstract :

ABSTRACT A NON-INVASIVE SYSTEM FOR MONITORING GLUCOSE LEVELS IN A USER AND A METHOD THEREOF
The present disclosure envisages a non-invasive system (100) for monitoring glucose levels in a user. The system (100) includes a 3D printed case (102) having a platform for placing an index finger of a user, where the case (102) includes a housing (102a) configured to enclose at least two emitters (102b, 102c) for emitting near-infrared wavelengths towards the index finger and a photodiode (102d) for receiving a reflected light from the index finger to generate an electric signal. The system (100) further includes a processing module (104) configured to receive the electric signal as inputs from the 3D printed case (102), further configured to convert the electric signal into a digital value, and further configured to correlate the digital value with pre-defined glucose levels. Also, the processing module (104) is further configured to perform a regression analysis based on the correlation between the digital value and the pre-defined glucose levels for predicting glucose levels in the user.

No. of Pages : 22 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441002915 A

(19) INDIA

(22) Date of filing of Application :15/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : AN ELECTROCATALYST ELECTRODE AND A PROCESS FOR ITS PREPARATION

(51) International classification :B01J31/22, B82Y30/00, B82Y40/00, C25B11/065, C25B11/091, C25B11/14, G01N27/30, G01N27/48

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
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(57) Abstract :
ABSTRACT AN ELECTROCATALYST ELECTRODE AND A PROCESS FOR ITS PREPARATION The present disclosure relates to an electrocatalyst electrode and a process for its preparation. The electrocatalyst electrode for the detection of a pharmaceutical contaminant(s) in water sources, the electrode comprises an electrocatalyst coupled to a glassy carbon electrode (GCE). The electrocatalyst electrode is highly selective and sensitive toward the detection of chloramphenicol antibiotics and has high water stability. The process of the present disclosure is economical, eco-friendly, and simple to perform.

No. of Pages : 35 No. of Claims : 13

(54) Title of the invention : ANALYSIS OF BRUNEI'S SMALL AND MEDIUM-SIZED BUSINESSES' USE OF MANAGEMENT ACCOUNTING SYSTEMS

(51) International classification :G06Q0040000000, G06N0020000000, G06Q0010060000, G06Q0050180000, G05B0019042000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :
The present invention introduces a specialized system for the analysis of management accounting practices in small and medium-sized businesses (SMBs) within the unique context of Brunei. Through a comprehensive framework encompassing data collection, processing, and analysis modules, the system offers a tailored approach to evaluate the efficiency and effectiveness of management accounting systems. Its innovative features include real-time monitoring and alerting, integration with external data sources, and customizable industry-specific modules, providing SMBs with actionable insights for informed decision-making. This invention addresses the specific challenges faced by Brunei's SMBs, fostering financial resilience and competitiveness in the local business landscape.

No. of Pages : 17 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :15/01/2024

(21) Application No.202441002950 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : ELECTRICAL INTER-CONNECTORS ASSEMBLY FOR BATTERY MANAGEMENT SYSTEM

(51) International classification :H01L0031050000, H01M0050502000, H01M0010420000, G01R0001067000, H01L0033620000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT ELECTRICAL INTER-CONNECTORS ASSEMBLY FOR BATTERY MANAGEMENT SYSTEM An electrical interconnector assembly for a battery management system (BMS) (102) of an electric vehicle is disclosed. The assembly includes multiple interconnector blocks (400), each comprising a flange bolt (306), a conductive block (308), an interconnector plate (310), and screws (312). The flange bolt (306) connects to a busbar (302, 304), while the conductive block (308) interfaces with a circuit board (104) of the BMS (102). The conductive block (308) has a recess (308-1) to accommodate the flange bolt (306) and a cavity (308-2) for the screws (312). The interconnector plate (310) is positioned at the bottom of the circuit board (104) and has holes (310-1, 310-2) corresponding to the cavities (308-2) of the conductive block (308). The screws (312) secure the conductive block (308) to the circuit board (104) and provide electrical coupling of the busbar (302, 304) to the interconnector plate (310). The assembly provides an increased surface area of contact with the circuit board (104) and has a simple construction that eliminates the need of 15 additional operations, like press fitting of brass terminals for installing on the circuit board (104). 20 23

No. of Pages : 29 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :15/01/2024

(21) Application No.202441002951 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : A LID PORTION AND AN ENERGY STORAGE CELL COMPRISING THE LID PORTION

(51) International classification :H01M0050531000, H01M0050116000, H01M0010420000, H01M0010390000, H01L0021768000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

ABSTRACT A LID PORTION AND AN ENERGY STORAGE CELL COMPRISING THE LID PORTION The disclosed subject matter pertains to a lid portion of an energy storage cell and an energy storage cell incorporating the same. The lid portion includes a first surface to be contacted with one of a first end and a second end of the energy storage cell and a second surface opposite to the first surface. The second surface has a notch shaped depression forming a pattern. The depression comprises a plurality of steps extending from the second surface to a pre-defined depth into the depression along the walls of the depression. When the pressure inside the energy storage cell increases beyond a threshold pressure, the pattern formed on the second surface opens up to release the excess gases from the energy storage cell. <>

No. of Pages : 20 No. of Claims : 15

(21) Application No.202441002962 A

(43) Publication Date : 09/02/2024

(43) Publication Date : 09/02/2024

(51) International classification	:A61B0018000000, H04W0004700000, A61B0018140000, H02J0007340000, H02J0050000000
(86) International Application No	:NA
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(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

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No. of Pages : 20 No. of Claims : 9

(54) Title of the invention : A MICROCHANNEL COOLING SYSTEM FOR HYPERLOOP AND A METHOD THEREOF

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(51) International classification	:B61B13/08, B61D27/00	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
A micro channel cooling system for hyperloop is described. The system comprises a heat storing component (1), wherein the heat generated in the system (100) is stored; an Inlet container (2), wherein atmospheric pressure is maintained; an outlet container (3), wherein partial vacuum pressure is maintained; a plurality of microchannel tubes (5), wherein the plurality of microchannel are connected between the inlet container (2) and outlet container (3) through heat storing component (1),wherein the liquid coolant (6) passes from inlet container (2) to outlet container (3), wherein the plurality of micro channel tubes (5) are in contact with the heat storing component (1), wherein the plurality of micro channel tubes (5) absorbs heat form the heat storing component, wherein the absorbed heat is transferred to the coolant,wherein, the phase transformation of liquid to gas occurs partially; and a vacuum pressure valve (4), wherein the valve is attached in the top portion of the said outlet container (3) to release the gas of evaporated coolant and to optimize the required vacuum pressure to maintain low pressure levels of outlet container (3). Fig: 2

No. of Pages : 23 No. of Claims : 11

(54) Title of the invention : METHOD AND SYSTEM FOR PROVIDING BLOCKCHAIN-BASED SUPPLY CHAIN TRACEABILITY AND PROVENANCE VERIFICATION

(51) International classification :H04L0009320000, G06Q0010080000, H04L0009060000, G06Q0030000000, G06F0021640000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr. A. S. Kalyana Kumar Address of Applicant :Associate Professor School of IT & Analytics, Institute of Public Enterprise, Shamirpet Campus, Hyderabad, Telangana State-500101, India Email: Phone: 9441744319 Hyderabad ----- 2)Dr. V Parameswari Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. A. S. Kalyana Kumar Address of Applicant :Associate Professor School of IT & Analytics, Institute of Public Enterprise, Shamirpet Campus, Hyderabad, Telangana State-500101, India Email: Phone: 9441744319 Hyderabad ----- 2)Dr. V Parameswari Address of Applicant :Assistant Professor of Commerce, PG & Research Department of Commerce, Jamal Mohamed College, 7, Race Course Road, Kaja Nagar, Tiruchirappalli, Tamil Nadu 620020, India 6383593360 Tiruchirappalli -----

(57) Abstract :
METHOD AND SYSTEM FOR PROVIDING BLOCKCHAIN-BASED SUPPLY CHAIN TRACEABILITY AND PROVENANCE VERIFICATION ABSTRACT The present invention discloses a method and system for enhancing supply chain traceability and provenance verification through the utilization of blockchain technology. A unique product identifier is generated and associated with comprehensive supply chain data, encompassing manufacturing, shipping, and quality control details. This information is securely recorded on a blockchain ledger, ensuring immutability and transparency. Participants in the supply chain are granted controlled access to specific ledger sections via a user interface, facilitating real-time verification of recorded data. The blockchain employs a consensus mechanism, such as proof-of-work or proof-of-stake, ensuring the integrity of the distributed ledger. The system provides a robust and decentralized framework for verifying product authenticity, fostering increased trust among stakeholders in the supply chain ecosystem. This innovation addresses the challenges of counterfeit products and lack of transparency, ultimately promoting a more reliable and accountable supply chain.

No. of Pages : 19 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003020 A

(19) INDIA

(22) Date of filing of Application :16/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : GENERATIVE ADVERSARIAL NETWORKS BASED MACHINE LEARNING MODEL FOR SKIN CANCER DETECTION AND CLASSIFICATION

(51) International classification :A61B0005000000, G06N0003080000, G06N0003040000, A61P0017000000, G06T0007000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
According to the research survey conducted by World Health Organization (WHO) skin cancer is considered to be the deadliest type of cancer. Early detection of the disease could save the persons life as nearly about 20% of people affected by the disease could not be cured even through surgeries and may lead to death. Approximately about 50000 people die each year worldwide due to skin cancer, reporting to about 0.7% of death due to cancer. One of the major causes of skin cancer is unprotected exposure of skin to ultraviolet rays. According to the reports by Skin Cancer Facts and Statistics 2020, the number of people affected by skin cancer in USA alone is 196060 leading to increase in 47% in the last ten years. Proposed is Generative Adversarial Networks Based Machine Learning Model for Skin Cancer Detection and Classification. Input Image of the suspected area is subject to Preprocessing. Preprocessing is carried out to reduce the destructive effects caused by blur or noise in skin image. Destructive factors such as strands of hair and blood vessels that may lead to error in diagnosis process could considerably be reduced. Data Augmentation and Resizing of images is carried out for Preprocessing. Feature Extraction is carried out using Gray Wolf Optimization algorithm. Efficient classification is carried out using Generative Adversarial Networks for classifying cancer as Melanoma, Seborrheic Keratosis or Lupus Erythematosus.

No. of Pages : 16 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003047 A

(19) INDIA

(22) Date of filing of Application :16/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : MULTIFUNCTION AGRICULTURE DEVICE

(51) International classification :A01C0007100000, A01C0007080000, A01C0007000000, A01C0007120000, A01C0007200000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)THE PRINCIPAL, MEPCO SCHLENK ENGINEERING COLLEGE Address of Applicant :MEPCO SCHLENK ENGINEERING COLLEGE (AUTONOMOUS) SIVAKASI, TAMILNADU-626005. India ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)DR.marichelvam Associate Professor/Mech MEPCO SCHLENK ENGINEERING COLLEGE (AUTONOMOUS) SIVAKASI Address of Applicant :MEPCO SCHLENK ENGINEERING COLLEGE (AUTONOMOUS) SIVAKASI, TAMILNADU-626005. India ----- 2) Mr.K.Kandakodeeswaran Assistant Professor (Sr'Grade/ Mech) Address of Applicant :MEPCO SCHLENK ENGINEERING COLLEGE (AUTONOMOUS) SIVAKASI, TAMILNADU-626005. India -----

(57) Abstract :

The major occupation of the Indian rural people is agriculture and both men and women are equally involved in the process. Agriculture has been the backbone of the Indian economy and it will continue to remain so for a long time. It has to support almost 17% of world population from 2.3% of world geographical area and 4.2% of world's water resources. The basic objective of sowing operation is to place the seed and fertilizer in rows at desired depth and spacing, cover the seeds with soil and provide proper compaction over the seed. The recommended row to row spacing, seed rate, seed to seed spacing and depth of seed placement vary from crop and for different agricultural and climatic conditions to achieve optimum yields and an efficient sowing machine should attempt to fulfill these requirements. In addition, saving in cost of operation time, labor and energy are other advantages to be derived from use of improved machinery for such operations. The agriculture has always been the backbone of India's sustained growth. As the population of India continues to grow, the demand to produce grows as well. Hence, there is greater need for multiple cropping in the farms and this in turn requires efficient and time saving machines .In the past, various types of design have been developed with different design approaches which have their own advantages and disadvantages and also operational limitations. Kumar et, developed a manually operated seeding attachment for an animal drawn cultivator. The seed rate was 43.2 kg/hr. while the field capacity was 0.282 ha/hr. Tests showed minimal seed damage with good performance.

No. of Pages : 8 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003051 A

(19) INDIA

(22) Date of filing of Application :16/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : CONTROLLING THERMAL RUNAWAYS IN ENERGY STORAGE DEVICES

(51) International classification :G01K7/36, H01M10/48, H01M10/613, H01M10/63, H01M10/653, H01M10/654, H01M10/657, H02J7/00

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
ABSTRACT CONTROLLING A THERMAL RUNAWAY IN ENERGY STORAGE DEVICES A system and method for controlling and managing a thermal runaway in an energy storage unit, wherein the energy storage unit includes a plurality of energy storage devices by monitoring a temperature due in each of the plurality of energy storage devices, determining if the temperature of energy storage device breaches a pre-defined threshold temperature, transmitting a signal to indicate onset of a thermal runaway in the energy storage device where the temperature of the energy storage device has breached the pre-defined threshold temperature, and isolating the energy storage device by releasing a substance surrounding the energy saving device. Figure 3C.

No. of Pages : 37 No. of Claims : 31

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003054 A

(19) INDIA

(22) Date of filing of Application :16/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : DETAILED LINEAR BEHAVIOR OF THIRD-ORDER NON-LINEAR OPTICAL SODIUM HYDROGEN SUCCINATE SINGLE CRYSTAL

(51) International classification :G01N0021730000, H01B0001040000, B22F0003230000, G02F0001355000, A61P0031160000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Sodium hydrogen succinate (SHS), a third-order Non-Linear Optical single crystal was harvested efficiently by an aqueous solution using a slow evaporation technique at room temperature. Single crystal X-ray diffraction analysis exposes that the harvested crystal belongs to the monoclinic system with space group C2/c. The presence of sodium in the grown crystal was authorized by ICP-OES analysis. The presence of proton and carbon peaks in the title compound was identified by NMR analysis. Applying optical absorption studies, detailed linear calculations like refractive index, reflectance, electrical conductivity, electrical susceptibility, and optical conductivity of SHS were established.

No. of Pages : 6 No. of Claims : 8

(54) Title of the invention : HELMET BASED SAFETY AND BIKE CONTROL SYSTEM

(51) International classification :A42B0003040000, A63F0013213000, A63F0013525500, A42B0003300000, G06F0003160000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)RajaIakshmi Engineering College Address of Applicant :RAJALAKSHMI NAGAR, THANDALAM, MEVALURKUPPAM, CHENNAI TAMILNADU NADU, INDIA, PIN CODE: 602105 ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Mrs.S.Vinothini,M.E Assistant professor Department of CSE Address of Applicant :RAJALAKSHMI NAGAR, THANDALAM, MEVALURKUPPAM, CHENNAI TAMILNADU NADU, INDIA, PIN CODE: 602105 ----- 2)Ms.Saraswathi.V Student Department of CSE Address of Applicant :RAJALAKSHMI NAGAR, THANDALAM, MEVALURKUPPAM, CHENNAI TAMILNADU NADU, INDIA, PIN CODE: 602105 ----- 3)Ms.Sneha.S Student Department of CSE Address of Applicant :RAJALAKSHMI NAGAR, THANDALAM, MEVALURKUPPAM, CHENNAI TAMILNADU NADU, INDIA, PIN CODE: 602105 -----

(57) Abstract :
ABSTRACT Road accidents are relatively common in the modern world. Everyone is concerned about safety and security when traveling by vehicle, With fast urbanization and the incredible growth of transportation networks such as two-wheeler vehicles, road safety and bike security has emerged as an unavoidable challenge for us. It has increased the; firmer of accidents, resulting in numerous injuries and deaths. Wearing a helmet can help you avoid serious accidents. Accidents are mostly caused by drunk drivers and over speeding. The majority of deaths' are caused by head injuries. As a result ,the design and - ' . implementation of a helmet-based bike control system is discussed with the purpose of increasing rider . safety and encouraging responsible driving behavior. To enhance road safety, speed monitoring is the process of tracking and controlling the speed of the vehicle This system includes cutting-edge technologies like alcohol detection, helmet detection, speed monitoring. The solution is built around a smart helmet that includes an alcohol sensor and a helmet-wearing detection mechanism. The motorcycle's control system, which reacts to signals provided from the helmet by permitting or inhibiting ignition based on whether 'or not alcohol is detected. Speed monitoring encourages drivers to adhere to posted speed limits. Knowing that their speed is being monitored can act as a deterrent against exceeding the designated speed limits, which can be adjusted with a potentiometer and displays. the current speed on an LCD screen in real time. ' Keywords: Smart Helmet, alcohol detection, helmet detection, speed monitoring.

No. of Pages : 9 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :16/01/2024

(21) Application No.202441003073 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : IMPLEMENTING DEEP LEARNING TECHNIQUES TO CATEGORIZE CROP PHENOTYPING CHARACTERISTICS AND EVALUATE CR

(51) International classification :G06N0003080000, G06N0003040000, A01G0007000000, A01B0079000000, G06K0009620000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Abstract: 'A farmer may maximize crop management. measures, including irrigation, fertilization, and pest control strategies, by using the classified phenotypic features. Utilizing the forecasts, scientists and cultivators may recognize stress-resistant cultivars, estimate prospective production, and spot early indicators of illness or pest infestation. In order to correctly classify characteristics like plant height, 'leaf area, canopy structure, leaf color, disease symptoms, blooming time, fruit size and shape, and stress tolerance, the models take significant aspects out of the input data and learn intricate patterns. The technique utilizes convolutional neural networks (CNNs), a type of deep neural network, in order to assess enormous amounts of sensor and crop image data. The labeled data, wherein each data point is linked to a unique crop phenotypic trait, is used to train the deep learning models; The deep learning models can be used to classify crop phenotypic traits in real time once they have been trained. The models could be updated 'with new crop images and sensor data, and they will forecast the associated properties. These forecasts may be examined and displayed to provide insightful information on crop progress Deep learning models can produce results that can be used in a variety of applications. Real-time categorization using the trained algorithms can yield insightful data about crop progress. The use of deep learning algorithms transforms conventional manual approaches, enhancing agricultural characteristic assessment accuracy, efficiency, and scalability. It provides an innovative approach to improve farming methods, maximize crop management, find stress-tolerant cultivars, ' forecast production potential, and identify early warning indicators of illness or insect infestation. Deep learning approaches have the potential to greatly boost agricultural production, sustainability, and profitability when used for crop phenotyping and crop development evaluation. Keywords:Phenotypic Features, Deep Learning Models, Labeled Data, Farming Methods, Agricultural Production, Crop Management

No. of Pages : 11 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003092 A

(19) INDIA

(22) Date of filing of Application :16/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : METHOD AND DEVICE FOR BACTERIAL DETECTION AND ANTIMICROBIAL SUSCEPTIBILITY TESTING

		(71)Name of Applicant : 1)INDIAN INSTITUTE OF TECHNOLOGY MADRAS (IIT MADRAS) Address of Applicant :The Dean, Industrial Consultancy & Sponsored Research (IC&SR), Indian Institute of Technology Madras Sardar Patel Road, IIT Post Chennai Tamil Nadu India 600 036 Chennai -----
(51) International classification	:C12M 1/34 , C12Q 1/04, G01N 27/26, G01N 33/50	Name of Applicant : NA
(86) International Application No	:NA	Address of Applicant : NA
Filing Date	:NA	(72)Name of Inventor :
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(57) Abstract :

METHOD AND DEVICE FOR BACTERIAL DETECTION AND ANTIMICROBIAL SUSCEPTIBILITY TESTING The present disclosure discloses methods and devices working on the principle of an electrochemical impedance for bacterial determination. Particularly, but not exclusively, the present disclosure relates to methods for determining bacterial concentration in biological and environmental samples and also for determining their susceptibility to antibiotics. Further, embodiments of the present disclosure relate to an electrochemical microfluidic point-of-care device and a kit comprising the same for determining bacterial concentration in samples and also for determining their susceptibility to antibiotics.

No. of Pages : 49 No. of Claims : 20

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003114 A

(19) INDIA

(22) Date of filing of Application :16/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : ARECA PARCEL BOX

(51) International classification :B65D0043020000, B65D0051160000, B65D0077200000, G06Q0010080000, B65D0077040000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The present disclosure relates to a bio-degradable parcel box. The parcel box (100-A, 200-A) includes a container (102, 202) made of arecanut, and a lid (104, 204) made of arecanut, wherein the lid (104, 204) is fitted on the container (102, 202) to create an airtight box.

No. of Pages : 14 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003173 A

(19) INDIA

(22) Date of filing of Application :16/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : INTEGRATED IOT-BASED SMART INTRUSION DETECTION AND AI-CHATBOT AUTHENTICATION SYSTEM

(51) International classification :H04L0051020000, H04L0067120000, H04N0005225000, H04W0012060000, B67D0001080000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The presented invention proposes an integrated IoT-based Smart Intrusion Detection and AI-Chatbot Authentication System utilizing Raspberry Pi as the central processing unit. The system employs various sensors, a camera module, and a Chatbot for comprehensive security in a cost-effective manner. Raspberry Pi serves as the IoT gateway, collecting and processing data from connected sensors to detect intrusions through a developed algorithm using LSTM implemented in Python. Simultaneously, an AI-Chatbot, implemented using Dialogflow, facilitates user authentication, interacting with a local authentication server. The system's architecture incorporates cloud services for secure data storage and analysis. A basic Touch screen-based user interface using Python GUI provides real-time notifications, while regular updates and security considerations enhance system robustness. This model presents a versatile and accessible solution suitable for small-scale applications requiring integrated security features in smart home and office environments.

No. of Pages : 9 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003184 A

(19) INDIA

(22) Date of filing of Application :16/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : TOPICAL OINTMENT FOR DIABETIC WOUND INFECTIONS CAUSED BY MULTI DRUG RESISTANT BACTERIA

(51) International classification :A61K0009060000, A61K0009000000, A61P0031040000, A61K0036610000, C07D0401140000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA		(71)Name of Applicant : 1)Dr. M. Shailaja Raj Address of Applicant :Department of Microbiology, St. Francis College for Women, Street No. 6, Kundan bagh, Begumpet, Hyderabad, Telangana 500016 Hyderabad ----- ----- 2)Dr. Arsheen Tabassum Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. M. Shailaja Raj Address of Applicant :Department of Microbiology, St. Francis College for Women, Street No. 6, Kundan bagh, Begumpet, Hyderabad, Telangana 500016 Hyderabad ----- 2)Dr. Arsheen Tabassum Address of Applicant :Department of Microbiology, St. Francis College for Women, Street No. 6, Kundan bagh, Begumpet, Hyderabad, Telangana 500016 Hyderabad -----

(57) Abstract :

The present invention relates to a formulation of a topical ointment for diabetic wound infections caused by multi drug resistant bacteria and its method of preparation. The formulation in addition to the ointment base contains Syzygium cumini seed extract and Aloe vera extract as medicament. The ointment prepared through this method is cost effective, environmentally friendly and having excellent antibacterial properties suitable for an application on diabetic wound infected patients suffering from pathogenic bacteria including multi drug resistant bacteria.

No. of Pages : 28 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003188 A

(19) INDIA

(22) Date of filing of Application :16/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : UTILIZATION OF DRONES AND MACHINE VISION FOR AUTOMATED INSPECTION OF ROADS AND BRIDGES

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(51) International classification	:B64C0039020000, G01N0021880000, G01S0017890000, G01S0017931000, G06N0020000000	
(86) International Application No	:NA :NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA :NA	
Filing Date		
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
The presented invention offers an advanced automated inspection system for roads and bridges, integrating drones with machine vision technology to enhance the accuracy and efficiency of infrastructure assessments. The system employs autonomous drones equipped with high-resolution cameras, LiDAR sensors, and advanced machine vision algorithms for real-time analysis. Through autonomous navigation and comprehensive data capture, the system identifies structural defects, including cracks and corrosion, providing timely and detailed inspection reports. Additionally, embodiments such as remote collaboration and adaptive machine learning enhance scalability, reliability, and adaptability, making the system a cutting-edge solution for proactive infrastructure maintenance and ensuring the longevity and safety of critical transportation components.

No. of Pages : 18 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003198 A

(19) INDIA

(22) Date of filing of Application :17/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : ARCADELAB: GAMIFIED LEARNING IN THE VIRTUAL AR LAB

(51) International classification :G09B0019000000, G06Q0050200000, G09B0007000000, G09B0007020000, G09B0005060000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
The present invention, ARcadeLab, is a novel system and method for integrating Augmented Reality (AR), Virtual Laboratory (Virtual Lab), and Gamified Learning to create an innovative educational platform. ARcadeLab is designed to enhance science education by providing an immersive and interactive learning environment for students, particularly in the fields of science, technology, engineering, and mathematics (STEM). ARcadeLab leverages AR technology to superimpose virtual laboratory equipment, experiments, and interactive elements onto the physical surroundings of the user, such as through AR-enabled devices like smartphones, tablets, and AR goggles. This immersive AR experience allows students to simulate real-world laboratory experiments, visualize complex scientific phenomena, and engage in hands-on learning without the constraints of a physical laboratory. Furthermore, ARcadeLab incorporates gamified learning elements to make the educational experience more engaging and motivating. It introduces a points and rewards system, badges, leaderboards, quests, and challenges that encourage students to actively participate in experiments, quizzes, and educational activities. The system tracks student progress, fostering a sense of achievement and competition. Key features of ARcadeLab include virtual lab equipment overlay, experiment visualization, virtual lab tours, interactive lab safety training, collaborative AR experiments, and interactive data visualization. These features cater to different learning styles and levels, making science education accessible and enjoyable for students of all ages and backgrounds. The ARcadeLab system and method offer significant advantages in the field of education by promoting a deeper understanding of scientific concepts, improving retention rates, and fostering a passion for STEM subjects. The integration of AR and gamification creates a dynamic and interactive learning environment that aligns with modern educational trends, ensuring that students are better prepared for the challenges of the future.

No. of Pages : 14 No. of Claims : 10

(54) Title of the invention : THERMAL INSULATION COMPOSITE SANDWICH STRUCTURAL FRP PANEL FOR LIGHT COMMERCIAL VEHICLES

(51) International classification :B29C0070440000, B32B0005180000, B29C0037000000, B32B0027120000, B29L0031000000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Axrad Renewpower Agri Machines Private Limited Address of Applicant :S.F.No. 491/1B,Senthampalayam, MasaGoundan Chettipalayam, Annur, Coimbatore-641107. ----- ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)K.Yadagiri Address of Applicant :Axrad Renewpower Agri Machines Private Limited, S.F.No. 491/1B, Senthampalayam, MasaGoundan Chettipalayam, Annur, Coimbatore- 641107. Email:npdcomposites@arams.live Coimbatore ----- 2)Baladhandayuthapani Pachyappa Address of Applicant :Axrad Renewpower Agri Machines Private Limited, S.F.No. 491/1B, Senthampalayam, MasaGoundan Chettipalayam, Annur, Coimbatore- 641107. Email:bala@arams.live Coimbatore -----

(57) Abstract :

The light commercial vehicle (302) enclosure of 6 sides (front side, backside, left side, right side, top side, and bottom side) are made up of thermal insulation composite sandwich structural FRP 5 panel that includes a gel coat (102), a resin infused Glass Fibre Reinforced Plastic (GFRP) (104), a Polyurethane Foam (PUF) (106), and a resin infused Glass Fibre Reinforced Plastic (GFRP) (108). The gel coat (102) is a thin layer. The Polyurethane Foam (PUF) (106) acts as a central thermal core and bonded externally on both sides with 1-3 mm thickness of the resin infused Glass Fibre Reinforced Plastic (GFRP) (104 & 108). The light commercial vehicle (302) with 10 thermal insulation composite sandwich structural FRP panel offers thermal insulation protection from cold temperature (-30°C) to an elevated temperature of 60°C with a reduction of temperature gradient of at least 10°C depending on the environment and applied insulation thickness.

No. of Pages : 16 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003201 A

(19) INDIA

(22) Date of filing of Application :17/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : THERMAL INSULATION COMPOSITE SANDWICH STRUCTURAL FRP PANEL AS COMMERCIAL AND INDUSTRIAL BUILDING BLOCKS

(51) International classification		:B32B0027060000, B32B0027080000, E04B0001760000, B32B0027360000, B29K0105060000	(71)Name of Applicant : 1)Axrad Renewpower Agri Machines Private Limited Address of Applicant :S.F.No. 491/1B,Senthampalayam, MasaGoundan Chettipalayam, Annur, Coimbatore-641107. ----- -----
(86) International Application No	:NA		Name of Applicant : NA
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(61) Patent of Addition to Application Number	:NA		2)Baladhandayuthapani Pachyappa Address of Applicant :Axrad Renewpower Agri Machines Private Limited, S.F.No. 491/1B, Senthampalayam, MasaGoundan Chettipalayam, Annur, Coimbatore- 641107. Email:bala@arams.live Coimbatore -----
Filing Date	:NA		
(62) Divisional to Application Number	:NA		
Filing Date	:NA		

(57) Abstract :

The system (100) includes commercial and industrial building blocks (302). These building blocks utilize a thermal insulation composite sandwich structural FRP panel. This panel is fixed on the inner side and outer side of the building blocks, serving as a building wall. The thermal insulation composite sandwich structural FRP panel comprises a gel coat 102, a resin-infused Glass Fibre Reinforced Plastic (GFRP) 104, a Polyurethane Foam (PUF) 106, and a resin-infused Glass Fibre Reinforced Plastic (GFRP) 108. The outer layer, resin-infused Glass Fibre Reinforced Plastic (GFRP) 108, optionally be coated externally with a weatherproof UV protection layer. The thermal insulation composite sandwich structural FRP panel, when utilized within the commercial and industrial building blocks 302, offers thermal insulation protection.

No. of Pages : 21 No. of Claims : 9

(54) Title of the invention : ELECTROTHERMAL INSULATION COMPOSITE (ETC) SANDWICH STRUCTURAL FRP PANEL

(51) International classification :H01L0031048000, B29K0309080000, B32B0015200000, F16L0059140000, H01Q0001420000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

The system (300) includes a resin-infused Glass Fibre Reinforced Plastic (GFRP) (102), a Polyurethane Foam (PUF) (104), a resin-infused Glass Fibre Reinforced Plastic (GFRP) (106), an outer layer, an aluminum layer (302), a solar panel (108), and a hard-coated UV resistance glass (110). The Polyurethane Foam (PUF) (104) is a central thermal core, ranges in thickness from 10 mm to 200 mm. The aluminum layer (302) placed beneath the solar panel (108) facilitates heat absorption from the solar panel (108), enhancing its efficiency. The hard-coated UV resistance glass (110) serves as the top layer, protecting the solar panel (108) from UV radiation. The total thickness of the Electrothermal insulation composite (ETC) sandwich structural FRP panel ranges from 12 mm to 205 mm. The electrothermal insulation composite (ETC) sandwich structural FRP panel (100) provides thermal insulation protection from room temperature (25°C) to an elevated temperature of 60°C, reducing temperature gradients by at least 10°C.

No. of Pages : 23 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :17/01/2024

(21) Application No.202441003204 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : OPTIRETINA: AN EFFICIENCCENT APPROACH FOR DIABETICRETINOPATHY
CLASSIFICATION USING CONVOLUTIONAL NEURAL NETWORKS

(51) International classification :A61B 3/12, G06N 3/02, G06N 3/0464, G06N20/00, G06N3/08, G06T 3/4046
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

One of the complications of Diabetes Mellitus, namely Diabetic Retinopathy (DR) damages the retina of the eye and has five levels of severity: Normal, Mild, Medium, Severe and Proliferate. If not detected and treated, this complication can lead to blindness. Detection and classification of this disease is still done manually by an ophthalmologist using an image of the patient's eye fundus. Manual detection has the disadvantage that it requires an expert in the field and the process is difficult. This research was conducted by detecting and classifying DR disease using Convolutional Neural Network (CNN). The CNN model was built based on the VGG-16 architecture to study the characteristics of the eye fundus images of DR patients. The planned technique is carried out through completely different steps: information collection, pre-processing, augmentation and modelling. The main goal of this work is to develop a robust system for automatic detection of diabetic retinography. Recently, deep learning has become one of the most common techniques that has achieved higher performance in several fields, especially within the analysis and classification of medical pictures. Convolutional neural networks are widely used as a deep learning method in medical image analysis and are highly effective. For this text, ways for detecting and classifying diabetic retinography background color images using deep learning techniques were reviewed and analyzed. Moreover, out there diabetic retinography datasets were reviewed for retinal color fundus. difficult differences that need a lot of investigation are discussed.

No. of Pages : 7 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003206 A

(19) INDIA

(22) Date of filing of Application :17/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : SOLAR PV PANEL INTEGRATED FRP PANEL FOR LIGHT COMMERCIAL VEHICLES WITH PASSIVE HEAT ABSORPTION

(51) International classification	:B32B0005180000, G02F0001133300, B32B0015200000, H01L0031048000, B32B0027060000	(71)Name of Applicant : 1)Axrad Renewpower Agri Machines Private Limited Address of Applicant :S.F.No. 491/1B,Senthampalayam, MasaGoundan Chettipalayam, Annur, Coimbatore-641107. Coimbatore -----
(86) International Application No	:NA	Name of Applicant : NA
Filing Date	:NA	Address of Applicant : NA
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number	:NA	1)K.Yadagiri
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(62) Divisional to Application Number	:NA	Email:npdcomposites@arams.live Coimbatore -----
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		Email:bala@arams.live Coimbatore -----

(57) Abstract :

The system (300) includes a light commercial vehicle 302 configured to utilize a Solar PV panel integrated FRP panel. The container of light commercial vehicle 302 left side, right side, and top side are made up of the Solar PV panel integrated FRP panel 100, back doors (304) may made up of a thermal insulation composite sandwich structural FRP panel, wind deflector 402 is made up of either the thermal insulation composite sandwich structural FRP panel or the Solar PV panel integrated FRP panel 100. The solar PV panel integrated FRP panel includes a resin-infused Glass Fibre Reinforced Plastic (GFRP) (102), a Polyurethane Foam (PUF) (104), a resin-infused Glass Fibre Reinforced Plastic (GFRP) (106), an outer layer, an aluminum layer (202), a solar panel (108), and a hard-coated UV resistance glass (110). The Polyurethane Foam (PUF) (104) is a central thermal core. The aluminum layer (202) facilitates heat absorption from the solar panel (108) and enhances efficiency. The Solar PV panel integrated FRP panel for Light Commercial Vehicles provides thermal insulation protection from room temperature (25°C) to an elevated temperature of 60°C, reducing temperature gradients by at least 10°C.

No. of Pages : 24 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003210 A

(19) INDIA

(22) Date of filing of Application :17/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : THERMAL MANAGEMENT OF ELECTROTHERMAL INSULATION COMPOSITE SANDWICH STRUCTURAL FRP PANEL FOR AUTOMOTIVE APPLICATIONS

(51) International classification	:B29C0070440000, H01L0031048000, B29L0031000000, B32B0027120000, F21S0009030000	(71)Name of Applicant : 1)Axrad Renewpower Agri Machines Private Limited Address of Applicant :S.F.No. 491/1B,Senthampalayam, MasaGoundan Chettipalayam, Annur, Coimbatore-641107. ----- -----
(86) International Application No	:NA	Name of Applicant : NA
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(87) International Publication No	: NA	(72)Name of Inventor :
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(62) Divisional to Application Number	:NA	Email:npdcomposites@arams.live Coimbatore -----
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		Email:bala@arams.live Coimbatore -----

(57) Abstract :

The thermal management of electrothermal insulation composite sandwich structural FRP panel (100) includes a resin infused Glass Fibre Reinforced Plastic (GFRP) (102) & (106), a Polyurethane Foam (PUF) (104), a phase shifting layer (112), a solar Panel (108), and a hard coated UV resistance glass (110). The Polyurethane Foam (PUF) (104) acts as a central thermal core. The Polyurethane Foam (PUF) (104) is bonded externally on both sides with 1-3 mm thickness of the resin infused Glass Fibre Reinforced Plastic (GFRP) (102) & (106). The phase shifting layer (112) is placed below the solar Panel (108) and includes a phase changing material, that absorbs the heat and maintains the solar Panel (108) temperature below 40°C. The thermal management of electrothermal insulation composite sandwich structural FRP panel (100) can be fixed on the at least 3 sides of the container of the commercial vehicles.

No. of Pages : 17 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :17/01/2024

(21) Application No.202441003221 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : THE ART OF VETIVER GRASS FIBER EXTRACTION , SPINNING AND WEAVING INTO FABRIC

(51) International classification :D01F0001100000, D01D0005240000, D01F0006040000, D02G0003040000, B29C0048050000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT OF THE PRESENT INVENTION The present invention is a process of extracting fiber from Vetiver was one of natural fibers from leaves. Preparing of the vetiver grass fiber by using the vetiver grass after 1 year of planting, the time of harvesting the vetiver leaves should be during a rainy season with in 45-60 days owing to getting the leaf about 80-120 centimeters long, the leaf cutting at the bottom of stem by measuring from the stem about 20 centimeter, boil the leaves in the boiling water for 20 minutes continually, sun drying for 1-2 days until it dry depend on the intense sunlight and the leaf was were weaken as the straight line with 2-3 millimeter in order to make an equal straight line. Bringing the vetiver grass leaf with 80-120 centimeters had been span and braided as the strand owing to make the strong fiber that could be supporting a heavy product; therefore, it was a suitability for supporting a heavy product. Beside the vetiver grass with soft, flexibility or emphasizing of beautiful colors, that could be mixed with other fibers such as cotton fiber, Samia Ricini fiber, silk fiber, plastic rope, wire rope and straw rope. The vetiver filter size is rather large, strong, and tough with a tenacity of 2.] 1 grams per denier, which is stronger than wool but not as strong as cotton fiber.

No. of Pages : 25 No. of Claims : 4

(54) Title of the invention : ASYMMETRIC MODULAR DC-DC CONVERTER SYSTEM AND METHOD OF OPERATION THEREOF

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	:B60L53/20, H02M1/00, H02M1/38, H02M3/335, H02M7/5388 :NA :NA : NA :NA :NA :NA :NA	(71)Name of Applicant : 1)INDIAN INSTITUTE OF SCIENCE Address of Applicant :C V Raman Road, Bangalore -560012, Karnataka, India Bangalore ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Roja Peri Address of Applicant :Department of Electrical Engineering, Indian Institute of Science (IISc), Bangalore, India. Bangalore ---- ----- 2)Vinod John Address of Applicant :Department of Electrical Engineering, Indian Institute of Science (IISc), Bangalore, India. Bangalore ---- -----

(57) Abstract :
ASYMMETRIC MODULAR DC-DC CONVERTER SYSTEM AND METHOD OF OPERATION THEREOF The present disclosure discloses an asymmetric modular DC-DC converter system 100, and a method of operating the asymmetric modular DC-DC converter system 100. The proposed converter system 100 discloses a first converter module 103, a second converter module 104 and a control unit 105. The first converter module 103 is configured to operate a load at 90%-100% of its rated load and the second converter module 104 is configured to operate at 10%-100% of its rated load. Therefore, the handling load is divided between the two modules and system efficiency is increased during high load conditions and low load conditions). To be published with Abstract: FIG. 1

No. of Pages : 28 No. of Claims : 20

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :17/01/2024

(21) Application No.202441003245 A

(43) Publication Date : 09/02/2024

(54) Title of the invention : MICROCONTROLLER BASED LOW-COST AUTOMATIC SANITARY NAPKIN DISPENSER

(51) International classification :A47K0010420000, G08B0021240000, G06Q0040080000, G06F0003010000, G06F0003030000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

ABSTRACT OF THE INVENTION: The smart sanitary napkin dispenser utilizes advanced technologies such as sensors to provide real-time data about napkin availability, usage patterns, and maintenance needs. The machine will dispense sanitary napkins automatically when users enter a coin. Through its user-friendly interface, women can easily access and retrieve sanitary napkins without having to Search for them or encounter an empty dispenser. Moreover, the dispenser incorporates touchless operation to minimize the risk of cross-contamination and promote optimal hygiene. In addition to convenience and hygiene, the smart sanitary napkin dispenser also offers environmental benefits. Its intelligent monitoring system optimizes napkin distribution, minimizing wastage and promoting sustainability. The dispenser can also provide insights on usage patterns, helping manufacturers and healthcare providers to tailor their products and services more effectively.

No. of Pages : 5 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003262 A

(19) INDIA

(22) Date of filing of Application :17/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A METHOD AND SYSTEM FOR RECONFIGURABLE WIRELESS CHARGING

(51) International classification :B60L53/12, B60L53/122, B60L53/66, H02J50/10, H02J50/12, H02J7/02, H02M1/42, H02M7/00

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Disclosed herein is a method and a system 200 for reconfigurable wireless charging. The system 200 comprises a first section 200A and a second section 200B. The first section 200A is adapted to receive an information indicative of a rated battery voltage, and a battery power rating of a vehicle. Based on the received information, a compensation unit 203 compensates a reactive power required from the IPT coupler 204. Further, a first portion of an inductive power transfer (IPT) coupler 204 transmits a compensated high frequency alternating current (HFAC). Consecutively, a second portion of the IPT coupler 204 receives the HFAC. Lastly, the onboard converter 206 converts the received HFAC into DC to charge a battery 207 of the vehicle. [Figure 2]

No. of Pages : 24 No. of Claims : 12

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003274 A

(19) INDIA

(22) Date of filing of Application :17/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : STOCK PRICE MOVEMENT PREDICTION USING MACHINE

(51) International classification :G06Q0040040000, G06Q0040060000, G06N0020000000, G06Q0030020000, G06Q0010040000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :

Stock Price Prediction using machine learning is the process of predicting the future value of a stock traded on a stock exchange for reaping profits. With multiple factors involved in predicting stock prices, it is challenging to predict stock prices with high accuracy, and this is where machine learning plays a vital role. Market prediction offers great profit avenues and is a fundamental stimulus for most researchers in this area. To predict the market, most researchers use either technical or fundamental analysis. Technical analysis focuses on analyzing the direction of prices to predict future prices, while fundamental analysis depends on analyzing unstructured textual information like financial news and earning reports. More and more valuable market information has now become publicly available online. This draws a picture of the significance of text mining strategies to extract significant information to analyze market behavior. While many papers reviewed the prediction techniques based on technical analysis methods, the papers that concentrate on the use of text mining methods were scarce. Many researchers believe that technical analysis approaches can predict the stock market movement. In general, these researches did not get high prediction results as they depend heavily on structured data neglecting an important source of information that is the online financial news and social media sentiments. These days more and more critical information about the stock market has become available on the Web.

No. of Pages : 5 No. of Claims : 3

(54) Title of the invention : A SYSTEM AND A METHOD FOR PERSONALIZED E-CONTENT GENERATION BASED ON STUDENT PERFORMANCE IN EDUCATION

(51) International classification (86) International Application No Filing Date (87) International Publication No (61) Patent of Addition to Application Number Filing Date (62) Divisional to Application Number Filing Date	(71)Name of Applicant : 1)SRM UNIVERSITY Address of Applicant :Amaravati, Mangalagiri, Andhra Pradesh-522502, India Guntur ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)KANNAPPAN JANAKIRAMAN Address of Applicant :Chief Strategy Officer, Green Pearl Education Management Corporation (GPEMC), SRM Group, 24, GN Chetty Road, T. Nagar, Chennai-600017, Tamil Nadu, India Chennai ----- 2)SIGINAMSETTY PHANI Address of Applicant :SRM University-AP, Neerukonda, Mangalagiri Mandal, Guntur-522502, Andhra Pradesh, India Guntur ----- 3)ASHU ABDUL Address of Applicant :SRM University-AP, Neerukonda, Mangalagiri Mandal, Guntur-522502, Andhra Pradesh, India Guntur ----- 4)AMIT KUMAR MANDAL Address of Applicant :SRM University-AP, Neerukonda, Mangalagiri Mandal, Guntur-522502, Andhra Pradesh, India Guntur ----- 5)KRISHNA SIVA PRASAD MUDIGONDA Address of Applicant :SRM University-AP, Neerukonda, Mangalagiri Mandal, Guntur-522502, Andhra Pradesh, India Guntur -----

(57) Abstract :
ABSTRACT A SYSTEM AND A METHOD FOR PERSONALIZED E-CONTENT GENERATION BASED ON STUDENT PERFORMANCE IN EDUCATION The present disclosure envisages a system (100) and a method (2100) for personalized e-Content generation based on student performance in education to tailor learning materials to individual student’s needs. The system (100) comprises a data storage device (102), and a microprocessor (104) coupled to the data storage device (102). The system (100) further comprises a data collection module (106) to a student profile (202), an assessment module (108) to assess learning requirements (208), a recommendation module (110) to generate a student specific recommendation command, a content generation module (112) to generate personalized content including personalized learning materials, an explanation module (114) to generate multiple student engagement activities, a video generation module (116) to transform multiple student engagement activities into a video representation by mapping step-by-step explanations to the video format, and an output module (118) to transmit the video representation to a user interface to provide personalized e-Content to the student.

No. of Pages : 43 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003350 A

(19) INDIA

(22) Date of filing of Application :17/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A METHOD OF OPTIMIZING IMRAD WITH TAILMRDCR FORMATTING FOR ENHANCED STRUCTURE, IMPROVED ACCESSIBILITY AND PUBLICATION

(51) International classification :G16B0050000000, G06F0016951000, G10L0021013000, H04W0036140000, G06F0016338000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

The IMRaD (Introduction, Methods, Results, and Discussion) model has long served as a standard for structuring research articles across diverse academic disciplines. This study pioneers an innovative approach to further refine and optimize the IMRaD model by emphasizing the often-overlooked sections of the Title, Abstract, and Literature Review. Through a meticulous analysis of secondary data, this research proposes a methodological enhancement that not only enhances the chronological order and logical flow within each section but also recognizes the pivotal roles played by the Title, Abstract, and Literature Review in the search, filtering, and utilization of articles from prominent databases such as Scopus, Web of Science, and Pubmed. The findings present a compelling argument for an improved model, offering a valuable resource for authors, publishers, and readers alike, aiming to elevate the quality and accessibility of research articles across all domains. This refined approach promises to facilitate a more comprehensive understanding of research articles, thereby contributing to the advancement of scholarly communication.

No. of Pages : 20 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003351 A

(19) INDIA

(22) Date of filing of Application :17/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : OPTIMIZING ACADEMIC IMPACT - A METHODOLOGICAL FRAMEWORK FOR STRUCTURED RESEARCH ARTICLE WRITING

(51) International classification :G06F0016350000, A23L0033000000, G16B0050000000, G06F0016340000, G01N0030060000

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(57) Abstract :

The process of writing a research article is a critical endeavor in the academic landscape, serving as the conduit through which scholars disseminate evidence-based findings and contribute to the collective body of knowledge. This paper introduces a methodological framework that guides researchers through a logical progression of writing, ensuring a cohesive and structured presentation. Beginning with the formulation of a compelling title, a concise abstract, and relevant keywords, the framework emphasizes the importance of a strong introduction, comprehensive literature review, meticulous data analysis, and systematic results presentation. The method advocates for a strategic sequence, initiating with the in-depth analysis of data and subsequent sections, culminating in the crafting of a well-refined abstract, keywords, and title tailored to journal specifications. By following this structured approach, researchers can enhance the quality of their articles, reduce the risk of desk rejection, and ultimately contribute meaningfully to the academic discourse.

No. of Pages : 15 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202441003367 A

(19) INDIA

(22) Date of filing of Application :17/01/2024

(43) Publication Date : 09/02/2024

(54) Title of the invention : A SYSTEM PROVIDING VIRTUAL ASSISTANCE, AND METHOD THEREOF

(51) International classification :H04L0065403000, G06Q0040080000, G06F0003160000, G06F0012080400, H04N0005232000

(86) International Application No :NA
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(57) Abstract :

Present disclosure discloses a system (102) providing virtual assistance, and method thereof. System (102) receives and stores one or more data and one or more multimodal commands from one or more computing devices (108) associated with at least one user (106). System (102) identifies the at least one request of the at least one user by a detection module based on the one or more multimodal command received and stored. System (102) extracts one or more information pertains to the at least one request of the at least one user from one or more sources. System (102) invokes and executes one or more function by an execution module (218) based on the one or more information extracted to fulfil the at least one request of the at least one user. System (102) provides virtual assistance to the at least one user.

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(54) Title of the invention : A REAL-TIME HEALTH MONITORING SYSTEM, AND METHOD THEREOF

(51) International classification :A61B0005000000, A61B0005024000, A61B0005110000, A61B0005020500, G16H0040670000 (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)VELLORE INSTITUTE OF TECHNOLOGY, CHENNAI Address of Applicant :Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)THOMAS ABRAHAM J V Address of Applicant :Associate Professor, School of Computer Science and Engineering, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- 2)SATHYARAJASEKARAN K Address of Applicant :Assistant Professor, School of Computer Science and Engineering, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- 3)MURALIDHAR A Address of Applicant :Associate Professor, School of Computer Science and Engineering, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- 4)ILAKIYASELVAN N Address of Applicant :Assistant Professor, School of Computer Science and Engineering, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai ----- 5)RAJKUMAR MURUGESAN Address of Applicant :Assistant Professor, School of Computer Science and Engineering, Vellore Institute of Technology, Chennai, Vandalur - Kelambakkam Road, Chennai, Tamil Nadu - 600127, India. Chennai -----

(57) Abstract :
Present disclosure discloses a real-time health monitoring system (102), and method thereof. System (102) receives one or more data pertains to one or more physiological measures of the at least one user (106) from one or more sensors (108) associated with at least one wearable device (302) worn by the user. System (102) extracts one or more features associated with the data by feature extraction techniques integrated to a data processing module and identifies at least one health condition of the user based on the one or more features extracted. System (102) generates and transmits an alert based on the health condition of the user (106) to inform at least one concerned authority to provide assistance to the at least one user. System (102) generates at least one encrypted data on one or more details of the health condition and transfers the encrypted data to at least one could platform.

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