OFFICIAL JOURNAL
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 01\textsuperscript{st} 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.

( Om Prakash Gupta )

CONTROLLER GENERAL OF PATENTS, DESIGNS & TRADE MARKS

5\textsuperscript{TH} JUNE, 2020
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# THE PATENT OFFICE
## KOLKATA, 05/06/2020

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

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<td>The Patent Office, Government of India, Boudhik Sampada Bhavan, Plot No. 32., Sector-14, Dwarka, New Delhi - 110075</td>
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Website: [www.ipindia.nic.in](http://www.ipindia.nic.in)  
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<td>पेटेंट कार्यालय, भारत सरकार कोलकाता, (प्राध्यात्मिक कार्यालय) बौद्धिक संपदा भवन, संघ-2, सेक्टर- V, साल्ट लैक सिटी, कोलकाता- 700 091, भारत, फोन: (91) (33) 2367 1943/44/45/46/87, फैक्स: /Fax: (91) (33) 2367 1988, ई. मेल: <a href="mailto:kolkata-patent@nic.in">kolkata-patent@nic.in</a></td>
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बेसाइट: http://www.ipindia.nic.in
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पेटेंट अधिनियम, 1970 तथा पेटेंट (संशोधन) अधिनियम, 2005 के अंतर्गत पेटेंट का अधिनियंत, 2006 द्वारा बांधित सभी आवेदन, खातानी, विवरण या अन्य दस्तावेज़ लिया कोई शुल्क पेटेंट कार्यालय के केवल उपयुक्त कार्यालय में स्वीकृत होगी।
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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.

(Om Prakash Gupta)
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 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.202011015929 A
(19) INDIA
(22) Date of filing of Application :13/04/2020 (43) Publication Date : 05/06/2020

(54) Title of the invention : HIGHLY PRECISE MEDICINE APPLICATOR

(51) International classification :G09B0019000000, A61M0035000000, A61K0047580000, H05B0033120000, A45D0019000000

(31) Priority Document No :NA
(32) Priority Date :NA
(33) Name of priority country :NA
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Filing Date :NA
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Filing Date :NA

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2) Dr. Vivek Jaglan
3) Dr. Neeraj Dahiya

(57) Abstract :
In this product titled as Highly Precise Medicine Applicator, the product is facilitated with display feature. In normal situation the person apply medicine easily. Assume the person has back side of the head injury or somewhere which is not visible in back side. Assume the person is alone and person want to apply medicine. There is chances to touch wound. There will be chances of infection. Highly Precise Medicine Applicator, has a mechanism to display the real time video streaming on the connected Mobile screen to help the person having injury to apply medicine to that partition which is not visible in the mirror also.

No. of Pages : 20 No. of Claims : 3
A system and method for securely storing data across a network in a distributed database for rehabilitating a river. The method includes the step of receiving textual communication to download a mobile application on detecting a computing device of a user within a predefined zone. The method includes the step of notifying the user to rehabilitate the river and to perform a monetary contribution for a clean river fund. Non-volatile computer memory is configured to generate a smart contract associated with a blockchain for users. The non-volatile computer memory is configured to add a fund in the central server allocated to rehabilitate the river for tracking of the users, introduce teams to the central server to perform rehabilitation of the river, publish data on the blockchain, add the published data in the blockchain on receiving consensus from a predefined number of the teams, and reward a winning team. The most illustrative drawing: FIG. 2.

No. of Pages : 27 No. of Claims : 6
The present subject matter discloses a portable self-defense device (100) comprising a communication module (101) configured to selectively communicate alerts by users, user’s location coordinates through various communication systems, to the pre-saved recipients by the user in said portable self-defense device (100) to all the emergency contacts followed by calling with a priority of contacts number in the list to be called first, second and etc. Plurality of defensive mechanisms including at least one weapon configured to be accommodated in said portable self-defense device (100). At least one illuminating device optionally connected with the audio device (122) to selectively provide illumination and audio signals/alerts, at least one close quarter electrical non-lethal stunner device, at least one physical combat weapon like knife or expandable baton, and at least one power source (110) and at least one switch to facilitate operation of mechanisms and electronic components of the portable self-defense device (100).
(54) Title of the invention : A SPACER FOR DESTRESSING THE PATELLOFEMORAL JOINT

(57) Abstract : The present subject matter discloses a spacer (100) for destressing a patellofemoral joint. The spacer (100) is configured to be fixed between a patella and at least one part of the patellofemoral joint. The spacer (100) destresses the patellofemoral joint by increasing the space between the femur and the patella at the patellofemoral joint and hence reducing the friction resulted. The spacer (100) comprises a plurality of holes (102) configured to receive screws (104) to fix it on the patellofemoral joint.

No. of Pages : 14 No. of Claims : 10
A therapeutic device is disclosed to treat arthritis of the knee. The therapeutic device comprises a plate (100). Further the plate comprises a first portion (102) and a second portion (102). The first portion (102) is configured to be fixed on an osteotomized upper-end (132) of the tibia (126) above the tuberosity (130). The second portion (102) is configured to be fixed on an osteotomized upper-end (134) of the tibia (126) below the tuberosity (130). The therapeutic device is configured to treat a varus deformity and a contact arthritis of the knee by correcting the angles, between the osteotomized upper-end (132) and the osteotomized upper-end (134). The first portion (102) of the plate (100) makes a first angle (a) with the second portion (104) of the plate (100) in a sagittal plane and a second angle (b) in a frontal plane.
The present subject matter discloses a multifunctional walking stick (100) comprising: a communication module (122) to track user and to communicate alerts by sending location coordinates through various communication systems, to the pre-saved recipients contact numbers. Plurality of defensive mechanisms are accommodated in said multifunctional walking stick (100). An illuminating device connected with the audio device to provide illumination and audio signals/alerts. Plurality of inbuilt functions with a reminder function, a fall alarm function, health function and a entertainment function; a power source (130), a switch to facilitate operation of mechanisms and electronic components of the multifunctional walking stick (100). The stick (100) protect a user from any emergency or assaults and to communicate its location coordinates to the devices of pre-saved list of recipients by sending a message alerts, calling, etc. on activation of multifunctional walking stick (100).
The present disclosure relates to the field of security systems and discloses a tamper indicating seal (100) comprising a tamper loop and a tamper detection chip (106). The tamper loop includes a first portion and a second portion. The tamper loop closes when an electrical connection is established between the first and second portions. The first portion is embedded within a bolt member (110) and the second portion within a housing (116) such that locking of the bolt member (110) with the housing (116) causes the tamper loop to close and unlocking of the bolt member (110) causes the tamper loop to open. The tamper detection chip (106) detects the count of tamper loop closing events or tamper loop opening and closing events to facilitate detection of tampering of the seal (100). Thus, tampering is identified even if the seal (100) is opened in the absence of an RF field.

No. of Pages : 27 No. of Claims : 17
(54) Title of the invention: INTERCHANGEABLE LOCKING APPARATUS

(57) Abstract:
INTERCHANGEABLE LOCKING APPARATUS ABSTRACT An interchangeable locking apparatus in the form of a clasp (100) for locking and releasing an end cap (410), and method for forming the clasp (100) are disclosed. The clasp (100) includes a casing (110), a trench plate (170) assembled inside the casing (110), at least two locking pins (150) assembled on the trench plate (170), and at least two push buttons (120) assembled through voids (140) in the casing. In the clasp (100), one each of the at least two push buttons (120) are coupled to one each of the at least two locking pins (150). The method includes assembling the locking pins (150) on a trench plate (170), assembling the trench plate (170) inside a casing (110), and assembling at least two push buttons (120) through voids (140) in the casing (110), such that the clasp (100) is formed. [To be published with Figure 4B]
Title of the invention: SYSTEM FOR DOOR SAFETY USING ARTIFICIAL INTELLIGENCE

Abstract:
The present invention relates to a system for door safety using artificial intelligence. Herein the microcontroller is used to interface all the above mentioned sensors/detectors along with alarm system and GSM module. Alarm is used for the audio indication of the breaking to make aware the neighbors about the breaking in the house, so that even if due to any fault the GSM fails to send message to the user the neighbors can inform the owner or police about the breaking. Following invention described in detail with the help of figure 1 of sheet 1 which shows schematic diagram of the proposed invention.

No. of Pages: 12 No. of Claims: 5
Title of the invention: A BONE CONDUCTION HEADPHONE

Abstract:
The present disclosure provides a bone conduction headphone with a spring mass system capable of generating minimum of two resonance peaks. Introduction of flat rubber band strips and casing further generates an additional resonance frequency. The first resonance peak is achieved in deep bass region, which enhances the deep bass effect, and the second resonance peak is achieved near 3kHz for better coverage of high frequency audio. The power efficiency of the transducer is improved due to reductions of magnetic flux leakage, which is achieved by introducing yoke and spring made of magnetic metal. The headphones are designed to fit over cheekbones and are capable of vibrating solid porous material (such as bones) so that, when they vibrate over the cheekbones, the vibration passes through the cheekbone to the inner ear cochlea and stimulates cochlea to convert the vibrations to neural signals.

No. of Pages: 27
No. of Claims: 11
The present disclosure related to a composition and a process of preparation of storage stable sugarcane juice. The process (100) may comprise steps of pretreating, filtering and adding of preservative before heating. The process (100) may comprise steps of heating, adjusting brix, adding preservative, adjusting pH, and blending at the temperature between 70-78°C for a predefined period of time. The process (100) may also comprise hot packing at 70-78°C and freezing the hot packed sugarcane juice at 0°C for predefined time period. The present disclosure also describes a storage stable sugarcane juice composition. The composition may comprise a sugarcane juice, one or more preservatives, a brix adjusting agent, an acidifier, a pre-processed flavoring agent, and a thickener. The composition may be characterized in such way that the storage stable sugarcane juice composition is hot packed after heating at 70-78°C for 10 minutes. (To be published with Figure 1)
The present invention relates to an acidity neutralizing composition comprising bacterium for decreasing somatic cell count, wherein the bacterium promotes growth of various bacteria, yeast for scavenging oxygen in rumen of the ruminant and dextrin mixed for boosting production of milk in ruminants and protect cattle and other ruminants from diseases.

No. of Pages: 10 No. of Claims: 8
Title of the invention: ENTERPRISE IOT-BASED APPLICATION DEVELOPMENT PLATFORM USING MACHINE AND DEEP LEARNING

(57) Abstract:
ENTERPRISE IOT-BASED APPLICATION DEVELOPMENT PLATFORM USING MACHINE AND DEEP LEARNING

ABSTRACT The invention ENTERPRISE IOT-BASED APPLICATION DEVELOPMENT PLATFORM USING MACHINE AND DEEP LEARNING is a cyber physical (IoT) software application development platform based upon a model driven architecture and derivative IoT (SaaS), PaaS applications are disclosed herein. The IoT Platform disclosed herein is a platform as a service (PaaS) for the design, development, deployment, and operation of next generation cyber physical software applications and business processes. The applications apply advanced data aggregation methods, data persistence methods, data analytics, and machine learning methods, embedded in a unique model driven architecture type system embodiment to recommend actions based on real-time and near real-time analysis of petabyte-scale data sets, numerous enterprise and extra rise data sources, and telemetry data from millions to billions of endpoints. The invention may include concentrators to receive and forward time-series data from sensors or intelligent devices. The invention may include message decoders to receive messages comprising the real-time-series data and storing the messages on message queues using machine learning. The invention may include a persistence component to store the real time-series data in a key-value store and store the relational data in a relational database. The invention may include a data services component to implement a type layer over data stores. The invention may also include a processing component to access and process data in the data stores via the type layer, the processing component comprising a batch processing component and an iterative processing component. The IoT Platform disclosed herein is a platform as a service (PaaS) for the design, development, deployment, and operation of next generation cyber physical software applications and business processes.
Systems and methods are disclosed for controlling projection of a set of data packets received from a remote computing device. The received set of data packets to be projected is stored at a server. Further, one or more projection devices operatively coupled to the server receive a first subset of unsynchronized data packets out of the stored set of data packets to be projected. The one or more projection devices are operatively coupled with one another. A control unit that is operatively coupled with the server instructs any or all of the one or more projection devices to project the received first subset of data packets simultaneously. Furthermore, the projected first subset of data packets are replaced with a second subset of data packets that are projected simultaneously without loss of the received second set of data packets across the non-overlapping or partially overlapping data channels.
ABSTRACT A BIODEGRADABLE AND ANTIBACTERIAL ALPHA CELLULOSE SHEET

The present invention relates to biodegradable and antibacterial alpha cellulose sheet. More particularly relates to a silver nanoparticles deposited biodegradable and antibacterial algal nanofibrous alpha cellulose sheet. The nanosilver coated alpha cellulose sheet has been found with good antibacterial property against the gram-positive and the gram-negative microbes. The sheet can effectively develop for applications in pharmaceutical, biomedical, food packaging, textile, water treatment, and biotechnological industries.

No. of Pages: 18
No. of Claims: 8
Title of the invention: A WIND TURBINE BASED HYBRID BIKE MECHANISM

Abstract:
The present invention relates to a wind turbine based hybrid bike. The object of the proposed invention is to provide an electric vehicle with hybrid approach of wind turbine and fuel. In the proposed invention a self-generated electrical energy is used to drive bike and it works on turbine fan, hub motor and battery where there is less need of fossil fuel. For battery charging turbine fan is installed at bike front and hub motor is driven with the help of battery. The hub motor is installed at front wheel of bike and turbine fan is attached to the dynamo which charges the storage battery. Two battery sets are used where primary battery drives hub motor and storage battery charges in running condition. Following invention is described in detail with the help of Figure 1 of sheet 1 showing the block diagram of the proposed invention.

No. of Pages: 12  No. of Claims: 7
Title of the invention: A SYSTEM AND METHOD FOR DETECTING MALICIOUS ACTIVITIES IN COMPUTING NETWORK

A SYSTEM AND METHOD FOR DETECTING MALICIOUS ACTIVITIES IN COMPUTING NETWORK The present invention is a system (100) for detecting malicious activities in a computing network (120, 116n). The system (100) comprises one or more data filter modules (102), a security management module (104) and one or more monitoring modules (122). The one or more data filter modules (102) is configured to filter incoming and outgoing network data packets and packet™s header according to a predetermined rule. The security management module (104) comprises an event tracker module (110), a vulnerabilities test module (106), an event analyzer module (108), an alarm analyzing module (112), an alert manager module (114). The management module (104) is configured to examine and scan the filtered network data packets and packet™s header according to the predetermined rule and patterns. The alarm analyzing module (112) is configured to classify alarm and analyze the classified alarm. The alert manager module (114) is configured to generate one or more malicious activities detecting alert signals and send the detected alert signal to the one or more users. Figure 1

No. of Pages : 20 No. of Claims : 10
(54) Title of the invention : A HERBAL COMPOSITION FOR BURN


(31) Priority Document No :NA
(32) Priority Date :NA
(33) Name of priority country :NA
(86) International Application No :NA
  Filing Date :NA
(87) International Publication No : NA
(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)Ravindra Vishnu Tendolkar

(72)Name of Inventor : 1)Namrata Ravindra Tendolkar
2)Ravindra Vishnu Tendolkar

(57) Abstract :
A Herbal Composition for Burn ABSTRACT The present invention relates to herbal composition for treatment of the skin burn. More particularly it is the herbal composition for curing skin burn marks. The herbal composition is prepared using the following components wherein the said herbal composition comprises; 250gm of active ingredient drug and 1 litre of an oil. The active ingredient is resin of Shorea Robusta and the oil is selected on the basis of their boiling points ranging from 200 degrees C to 350 degrees C. The process is described in the current invention stepwise and the resulting herbal composition facilitates its diffusion into the skin thus leading to new skin formation. The herbal formulation gives soothing or cooling effect on the burnt area of the skin instantly after topically applying it. The herbal formulation for burn is totally natural and free from preservatives and color.

No. of Pages : 15 No. of Claims : 12
Title of the invention: A HERBAL COMPOSITION FOR TREATING CORN

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<td>1) Ravindra Vishnu Tendolkar, 2) Namrata Ravindra Tendolkar</td>
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</tbody>
</table>

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Name of Inventor: 1) Namrata Ravindra Tendolkar, 2) Ravindra Vishnu Tendolkar

Abstract:
A Herbal Composition for treating Corn ABSTRACT The present invention is a novel herbal formulation for treatment of corn which is quick and effective. It provides complete removal of corn with no side effects and is fast acting. The herbal formulation primarily consists of plant extract of Amaranthus spinosus L and honey. The formulation is capable of dissolving the corn and relieving the patient from the said skin disorder within fifteen to twenty days when herbal formulation is taken in the quantity in the range of 3.5-5 grams/day. The formulation works by dissolving the hardened skin cells layer after layer, opening up the clogs and restoring normal blood flow. The present herbal formulation provides for safe, fast acting, cost effective way of treating corn. Also the complete treatment requires no additional step before or after the treatment regimen and the chances of relapse of corn is negligible in the present invention as it cures the patient from the root cause.

No. of Pages: 8 No. of Claims: 10
The Sampoorna Infection Control Head Enclosure Device is an attempt to try to control the spread of infection at Source, the patient. The portal for entry and exit of the respiratory pathogens are located on the head & Face region. Hence its enclosure will allow limiting the spread of infection. But at the same time the vital functions of breathing and feeding are done from here. Hence the challenge is not to hamper these essential functions. The products cater to the present day spectrum of Non Invasive Ventilation (NIV) that is usage of oxygen delivery methods like Low Flow Oxygen (LFO), High Flow Oxygen (HFO) and Non Invasive Positive Pressure Ventilation (NIPPV). Use of these innovative devices and breathing circuit strategies can help to minimise the spread of infection, improve patient outcomes and also boost the morale of the HCW who are risking their lives for patient care.

No. of Pages : 28  No. of Claims : 6
(54) Title of the invention : NATURAL LEMON PANEER BY DAIRY POWER LTD.

(57) Abstract :
Abstract: The present invention is a process of manufacturing Natural Lemon Paneer by using Natural Lemon Juice, Lemon Concentrate, Concentrate obtain from Lemon as Coagulating agent for Milk for making Paneer blocks. It produces same quality and texture as compare to traditional method paneer product. Naturally and Organically processed Paneer (Cheese Cottage) is vital demand of the consumers for their healthy food consumption in recent times. Through this process, Lemon Paneer can get offer to consumers in just additional 1% extra cost compare to traditionally manufactured paneer available in the market currently. The present invention helps the object of healthy organic dairy food product to its consumers in minimum cost with better product option.

No. of Pages : 19 No. of Claims : 6
The present disclosure pertains to a head regulator system in a dam, said system comprising: a plurality of water inlets at different sill levels, said water inlets are on the upstream side of the dam; and a plurality of conduit pipes, wherein each of the conduit pipes is connected to at least one water inlet.

No. of Pages : 15 No. of Claims : 10
The present disclosure relates to a method and system for rejuvenation of a head regulator in a dam, said method comprising inserting a new pipeline into an existing conduit in said head regulator. The new pipeline is a monolithic pipeline without any collar joint. A gap between the new pipeline and the existing conduit is filled along a length of the new pipeline, with a first filler material. A trash rack and an emergency gate slot with removable gate leaf is provided at upstream side of head regulator. At least one flow control valve is provided at a downstream end of said head regulator.
A semi open type splitter impeller 37 of slurry feed pump with spiral cone cutter is comprising of; a back shroud 5, a spiral cutter 1 with a continuous cone geometry 2, a plurality of vanes 3 having a curved profile 10 and a plurality of splitter vanes 4 having a curved profile 29. A plurality of blades 38 of the spiral cutter 1 are provided with a spiral angle 39 and are having a plurality of cutting edges 8. The vanes 3 are positioned symmetrically on the back shroud 5 to form a plurality of entry and exit passages 13, 15. The splitter vanes 4 are positioned symmetrically on the back shroud 5 in between the vanes 3. Present invention can be used for feeding of slurry containing lumpy solid particles and/or fibers such as livestock slurry, biogas digestate and effluents in civil/industrial effluent processing plants.
Title of the invention: AYURVEDIC INSTANT IMMUNITY BOOSTER FOR MULTIPLE DISEASES

Abstract:
The present invention is directed to the method and composition of Ayurvedic immunity booster. This medicine is a combination of various types of natural herbs which improve immunity level. The purpose to prepare this medicine is to cure many various diseases such as Covid-19, SARS, Nipah, Widol, Body Burn Cases, Typhoid, Viral Fever, Bacterial Fever, Viral Flu, Influenza, Liver Disease, Liver Psoriasis, Pneumonia, Ards, Malaria, Dengue, Hepatitis A/B, Hyper Acidity, Asthma, harpies, HIV-Aids. Rhizomes (ginger) - 250 ML, Honey - 250 ML Total 500 ML.

No. of Pages: 9 No. of Claims: 2
(12) PATENT APPLICATION PUBLICATION
(21) Application No.202021017981 A

(19) INDIA

(22) Date of filing of Application : 27/04/2020

(43) Publication Date : 05/06/2020

(54) Title of the invention : A METHOD AND APPARATUS FOR IN-SITU CONCRETE OVER ELASTOMERIC BEARINGS IN PRECAST GIRDER BRIDGE CONSTRUCTIONS

(51) International classification : E01D019040000, 
                                      E01D0021000000, 
                                      E01D00021000000, 
                                      E01D00211000000, 
                                      B64C0027350000

(31) Priority Document No : NA
(32) Priority Date : NA
(33) Name of priority country : NA

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

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

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(72) Name of Inventor : 1) NAGAPPA HEBBI

(57) Abstract :
ABSTRACT A Method and apparatus for in-situ concrete over elastomeric Bearings in precast girder bridge constructions The present invention disclosed the in situ concrete over elastomeric bearings in precast girder bridge construction. The in situ concrete comprising the top mould (101) to create the cavity in the pier segment (100) with air vent provision, HDPE corrugated pipe (102) mounted in the pier segment, bottom mould (103) to hold the concrete to be laid between the pre cast bridge girder and the elastomeric bearing (104), dowels to hold a steel mesh, cementations mixture. The formation of the in situ concrete in the bridges is removing the error of gap between elastomeric bearing (104) and the pier segment (100). With the help of the in situ concrete, also achieving true horizontal plane with the higher compressive strength of 60 MPa to 65 MPa.

No. of Pages : 17 No. of Claims : 6
The present invention relates to a door latch system for a motor vehicle which is powered through passenger muscle energy expenditure. According to the present invention, Energy liberation through muscles is harnessed during the dynamic operation of the vehicle doors for powering the door latch system. Door latch system of vehicle’s door comprises of vehicle door panel attached to the body of the vehicle, including power door latch connected to the electronic actuator, controller, anchor and bolt fixed at one end while the other end having roller and shaft arrangement to rotate two generation devices that generates electrical power. Power latch operation for lock and unlock the vehicle doors is actuated through the energy stored in a storage device. According to the invention, the muscular energy of passengers, recoverable during the opening and closing of vehicle doors. Retrieval of energy expenditure is useful for the power latch operation of vehicle doors in the automobile.

No. of Pages : 18 No. of Claims : 8
METHOD OF MANUFACTURING NON-ALCOHOLIC NANOSCALE SURFACE SANITIZER BASED ON METAL ORGANIC FRAMEWORK AND COMPOSITION THEREOF

In the present invention we disclose the method of manufacturing nanoscale surface sanitizer based on metal organic framework formulation, kills/inactivates 99.99% microbes that includes entrapped viruses, fungus, bacteria and larva of insects, but not limited too. The nanoscale surface sanitizer and may be used for cellular or non-cellular surface cleaning through external application or air cleaning by generating aerosols. The sanitizer of the present invention is non-flammable, disinfects and/or sanitizes surfaces rapidly after application.

No. of Pages: 22  No. of Claims: 9
Title of the invention: DB-VED - DOUBLE BURNER VIRUS ELECTROCUTE DEVICE FOR SPONTANEOUS COUGH, TISSUE-PAPER AND OTHER WASTE SANITIZATION.

Abstract:
The use of ordinary dustbins in hospital may spread the infection in the atmosphere through aerosolization of pathogens, which can infect Health workers, Doctors and other patients present in that hospital. Disposing of hospital waste is a major challenge faced by the hospitals. The present Coronavirus Pandemic proves that just the collection of hazardous waste from hospitals and disposing them later may not be sufficient to eradicate the presence of the active virus, which can ultimately prove to be dangerous for the public, the hospital staff, and in fact for everyone. In the present invention, the device is with Double Burner Virus Electrocute device for spontaneous sanitization of cough, tissue-paper, and other disposals through heat sanitizing. Increase of infection load take place in a Respiratory Track infected patient who is subjected to wear a protective mask. The mask, which covers nostrils and mouth, allows filtered air for inhalation, but do not allow infected air to go out during exhalation. The fear and concern regarding throwing out the infected mucus by a patient and spreading of the disease leads to covering him with a mask. This aggravates the disease into the patient as he is subjected to swallow back the active Virus. Thus, resulting in an increase of the infection load in the patient. In the present invention, there is provision of throwing off of cough and sputum safely onto a preheated burner plate, whereby spontaneously sanitizing of the waste and resulting into reducing infection (Virus) load. Through this invention the sputum, tissue-paper, and other disposals get sanitized spontaneously and save the risk of any infection from them.
(54) Title of the invention: COMMUNITY-VED-MASK WITH TWO SEPARATE CHAMBERS FOR INHALATION AND EXHALATION OF AIR THROUGH BATTERY OPERATED BURNER AND PROVISION OF A UV-C LIGHT AT THE APEX.


(31) Priority Document No: NA
(32) Priority Date: NA
(33) Name of priority country: NA

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

(87) 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 present situation, the masks that are available world over for people, clinic or hospital use are very simple in nature and use. Some masks are available with a tri-layer, which provides better protection for inhalation. There is prior art available related to this, but no prior art bears any similarity with the present invention. The conventional masks that are available in the market, functions in a way that the air that is inhaled through these filters from outside, may only be 95% germ-free and there is no provision to control the exhaled air, which might carry loads of pathogen if exhaled in public place. Hence, these patients are provided with such mask, which prevent aerosolization of the pathogen along with exhalation. The drawback with this activity is that while exhalation, the same mask prevents an infected air to go out of the body. In fact, the patient with a proven infection in the Respiratory Tract, is forced to take back (swallow) the active pathogen back in the system, whereby increase the load of the Pathogen in his own body. In the present Pandemic with Coronavirus, this is proving fatal. Another disadvantage of conventional masks being that for inhaling and exhaling, the same chamber is used which contains the possibility to contaminate the inhaled air with the exhaled air. The present invention is intended to: 1. Reduce pathogen load from the Respiratory and buccal cavity infected patient. 2. Treat the exhaled air from an infected person and make the exhaled air pathogen free, whereby add to control spread of the disease. In the present invention, two separate chambers are used, which are designated as one for inhaling and another for exhaling. The air inhaled from the environment will pass through couple of tri-layer filter fitted as nostrils in the Inhalation chamber. The other Exhalation chamber of the mask is specially designed to treat the exhaled air from an infected person and make it Pathogen Free by electrocuting the harmful particles, may it be bacteria, fungi, or Viruses. As per the knowledge of the Applicant, no similar invention is available for use in the market.

No. of Pages: 14 No. of Claims: 5
Abstract: Method and apparatus for Prevention of Airborne and Aerosol borne contagious, infectious, communicable diseases and respiratory health hazards generates an invisible shield and barrier in between the surrounding environmental area so that it creates a clean, germ free breathing area for the user. This also serves as an invisible mask for the user. The aerosol, splatter, biochemical and biological hazardous substances are generated in a public, hospital, industrial environment either due to the surrounding people carrying infections or due to the use of different tools and due to the use of chemicals in various industrial processes. This device is a combination of an air curtain, and a clean breathing air supply that uses forced air to create a positive pressure area to keep the contaminants out of an invisibly enclosed area around the user. This device works on multiple power sources like grid, battery as well as without a source of power by using an air cartridge. This device prevents the user from the adverse effects of aerosols and also ensures that the user is not infected by breathing in a hazardous area that contains polluted air. (Fig.3)
A valvuloplasty balloon catheter is disclosed. The valvuloplasty balloon catheter (100) comprises of an inflatable member (40) having tapered ends and a tubular member (50) mounted over the inflatable member (40). The tubular member (50) comprises of a proximal section (50a), a distal section (50b) and a middle section (50c). The middle section (50c) includes a proximal middle portion (50c1), a distal middle portion (50c2) and an intermediate portion (50c3). The proximal middle portion (50c1) and the distal middle portion (50c2) includes a plurality of closed cells (54). At least one of the proximal section (50a) or the distal section (50b) includes a plurality of first struts (52) being tapered. The plurality of closed cells (54) includes one or more zig-zag elements being placed over the tapered end of the inflatable member (40) thereby allowing uniform and smooth expansion of the tubular member (50).

No. of Pages : 28 No. of Claims : 18
Title of the invention : NEAR FIELD COMMUNICATION RING DEVICE

Abstract :
Near field communication ring device. The device (100) comprises a ring housing (102) enclosing an NFC chip (208) and an antenna (210). The ring housing (102) further comprises a first member (202) and a second member (204). The first member (202) comprises a first annular groove (302) and the second member (204) comprises a second annular groove (312). The first member (202) and the second member (204) are coupled in a manner that first annular groove (302) and the second annular groove (312) are positioned to define a chamber (404), wherein the NFC chip (208) and the antenna (210) is within the chamber (404). The antenna (210) is a circular antenna comprising wire wound multiple times along the entire annular groove, thereby causing the antenna to enable signal propagation perpendicularly to a plane of the ring device (100). Reference figure: FIG. 2

No. of Pages : 28 No. of Claims : 15
**Title of the invention:** NEAR FIELD COMMUNICATION RING DEVICE

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**Abstract:**
Near field communication ring device. The device 100 comprises a housing 102, an NFC chip 202 and an antenna 204 connected to the NFC chip 202 for enabling near field communication, wherein the antenna 204 and the NFC chip 202 are housed within the housing 102. The periphery of the housing 102 resembles an arc having a start side 104 and an end side 106 and a slit 108 is defined between the start side 104 and the end side 106 along the path of the arc of the housing 102. The housing 102 is made using a metal and the slit 108 is filled using a filling material to complete the arc of the housing 102. The antenna 204 is a circular antenna comprising wire wound multiple times along a circular path, thereby causing the antenna to enable signal propagation perpendicularly to a plane of the device 100. Reference figure: FIG. 1

No. of Pages : 44 No. of Claims : 20
A flow diverter and its delivery system is disclosed. The delivery system assembly comprises of a flow diverter (100) and a delivery system (400) that is configured to deploy the flow diverter (100). The delivery system (400) comprises of an introducer sheath having a lumen, a delivery wire (403) is placed within the lumen, a plurality of markers and a resheathing pad (405). The plurality of markers includes a proximal marker (407a), a distal marker (407c) and a resheathing marker (407b). The proximal marker (407a) includes an indented structure for providing smooth friction thereof against the introducer sheath. The resheathing marker (407b) and the distal marker (407c) have a tapered profile which help to maintain position of the flow diverter (100) during deployment. The resheathing pad (405) is configured to support the flow diverter (100) in crimped state for allowing ease of multiple resheathing thereby resulting in accurate deployment of the flow diverter (100).

No. of Pages : 35 No. of Claims : 16
(54) Title of the invention : VIDEO RECORDING METHOD AND DEVICE

(51) International classification : H04N 5/76, H04N 5/91
(31) Priority Document No : 201710876316.0
(32) Priority Date : 25/09/2017
(33) Name of priority country : China
(86) International Application No Filing Date : PCT/CN2018/107299 25/09/2018
(87) International Publication No Filing Date : WO 2019/057198
(61) Patent of Addition to Application Number Filing Date : NA
(62) Divisional to Application Number Filing Date : NA

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(57) Abstract :
Embodiments of the present application provide a video recording method and device. The method comprises: an application of a mobile terminal receives a video recording instruction of a user; generate, according to a photographing scene, a video stream that can be edited according to segments, the video stream comprising at least one frame sequence segment; upload the edited video stream to a server. According to the present application, by generating a video stream consisting of at least one frame sequence segment during video recording, wherein the generated video stream can be edited according to segments, the error tolerance of video capture is improved, and the costs of later video editing are reduced.

No. of Pages : 17 No. of Claims : 10
The present invention relates to an AC induction motor driven vane pump, which drives a hydraulic power steering vane pump, providing controlled speed based on the pump flow requirement. More particularly, the present invention relates to the method used to couple motor shaft with that of the power steering pump shaft. The integrated motor pump for power steering in electric vehicle comprises a pump oil inlet/suction port, a pump oil exit/outlet/delivery port, a pump shaft, a motor, a motor shaft, a terminal box, a front cover and a coupler disk. Advantageously the present invention promotes pump interchangeability, i.e., use a wide range of pumps in the system without prior modifications. FIGURE 1.

No. of Pages : 19 No. of Claims : 8
(54) Title of the invention: PROCESS OF PRODUCING AMINO ACIDS FROM ITS KETOACID BY ENZYME AMINO ACID DEHYDROGENASES

(51) International classification : C12P7/18
(31) Priority Document No : NA
(32) Priority Date : NA
(33) Name of priority country : NA
(36) Name of priority country : NA
(86) International Application No : NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number : NA
(62) Divisional to Application Number : NA
(57) Abstract : NOT SUBMITTED

No. of Pages : 36 No. of Claims : 9

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(72) Name of Inventor:
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2) T. AKILA
3) G. PADMAPRIYA
4) Y. ANITHA JANET ROSHINI
5) J. TAMILSELVAN
Title of the invention: DEEP ROOT IRRIGATION SYSTEM USING CERAMIC SUCKING CANDLE/PVC OR UPVC/POLYETHYLENE TEREPHTHALATE BOTTLE OR PIPE WITH POROS FILLED WITH INDECOMPOSABLE FIBER MATERIALS FOR TREES OR PLANTS

Abstract:
The deep root irrigation system by using the ceramic candles can bring water directly to pores besides the tree’s or plant’s root. This ceramic candle can suck the water from nozzle which is connected via water source pipe and distribute water to pores of the soil besides tree/plant root for easy consumption beneath the surface. The ceramic material applied on the metal or plastic pipe with pores having provision to connect water source pipe is defined as ceramic candle. The ceramic candle proposed here for irrigation is one which is used in old-water filter. Once the water enter into the candle, the ceramic material can suck and spread the water into the soil beneath the surface besides the root. Here, overhead tank can be used to make pressure on the pipes to pull the water towards the ceramic candle to easily suck and distribute without any additional energy. The deep root irrigation system by using the PVC/UPVC/POLYETHYLENE TEREPHTHALATE bottle or pipe with pores filled with indecomposable fiber materials candles can bring water directly to pores besides the tree’s or plant’s root. This candle can suck the water from nozzle which is connected via water source pipe and distribute water to pores of the soil besides tree/plant root for easy consumption beneath the surface. Here, overhead tank can be used to make pressure on the pipes to pull the water towards the ceramic candle to easily suck and distribute without any additional energy.
SYSTEM AND METHOD TO MONITOR A VEHICULAR ACCIDENT

ABSTRACT

A system to monitor a vehicular accident is disclosed. The system includes a plurality of sensors. The system also includes a controller processor unit. The controller processor unit includes a data collection module operable by one or more processors, configured to collect sensed data from the plurality of sensors. The controller processor unit includes a data comparing module operable by the one or more processors, configured to compare the sensed data with stored data by a comparing technique. The controller processor unit includes an accident detection module operable by the one or more processors, configured to analyse the compared data for detection of the vehicle accident. The controller processor unit an examining module operable by the one or more processors, configured to cross-examine in real time analysed compared data with a plurality of factors. And, systematic and a timely notification is provided to responsible parties. FIG. 1

No. of Pages : 21 No. of Claims : 8
The present invention employs a welded article manufacturing method comprising: a step (ST1) for supplying a first metal member E; a step (ST2) for supplying a second metal member D of which the temperature reaches the melting point earlier than the temperature of the first metal member E when the second metal member D is brought into contact with the first metal member E and current is applied between both metal members; a step (ST3) for preheating the first metal member E with high-frequency induced current; a step (ST4) for pressing the first metal member E and the second metal member D; a step (ST5) for applying current between the first metal member E and the second metal member D when the temperature of the first metal member E reaches a predetermined temperature TS4 owing to the preheating; and steps (ST4 ST5) for welding the first and second metal members E D to each other by means of the pressing and the application of current. Consequently the present invention provides: a method for manufacturing a welded article having a sufficient welding length even when metals the temperature of one of which reaches the melting point earlier than the temperature of the other one of the metals at the time of welding by means of application of current are welded to each other; and a welding device for welding such metals to each other.

No. of Pages : 21 No. of Claims : 6
Chronic Obstructive Pulmonary Disease (COPD) is a group of progressive lung diseases which includes chronic bronchitis and emphysema which destroys the air sacs in the lungs and interferes with the air flow. COPD is mainly caused due to smoking or long-term exposure to irritants or toxins in the air. Symptoms of COPD include shortness of breath, wheezing, and chest tightness. COPD is also frequently correlated with numerous co-existing diseases such as heart disease, osteoporosis and diabetes, which influence morbidity and mortality.

Spirometry is the most common lung function test for diagnosis of COPD, it helps in measuring how much and how quickly you can release air out of your lungs. Electronic spirometers used in hospitals are huge, expensive and require training to use, therefore it is not installed in many rural locations and one has to travel substantial distances to undergo the test. The proposed system is a portable device which includes conduction of three main tests to be taken by a COPD patient, and allows the user to choose which test to be conducted first. The three tests include spirometry test, pulse test, and glucose test to be performed. The Forced Vital Capacity (FVC) and Force Expiratory Volume (FEV1) values are calculated based on age, height, and weight. The proposed device is small, portable, cost-efficient and can perform multiple tests in one-go saving the user’s time, money and energy.

No. of Pages : 12 No. of Claims : 7
Traffic signal pre-emption is a type of system that allows the normal operation of traffic lights to be pre-empted. The most common use of this system is to manipulate traffic signals in the path of an emergency vehicle such as ambulance, fire engine, police vehicles by halting, conflicting traffic, and allowing the emergency vehicle to pass through the traffic signals right-of-way. This would help to reduce the response time and enhance traffic safety too. Signal pre-emption will also be used by systems to allow emergency transportation in public through priority access-intersections, traffic congestions, and busy areas in the city. The pre-emption of signals is generally done to provide zero traffic, with reduced response times in a smooth and controlled manner. The system proposes an innovative and cost-effective server-centric model to facilitate pre-emption using a simple mobile phone app using Global Positioning System (GPS), and traffic signal operating with the help of a Wi-Fi connection and a controller.

No. of Pages : 13 No. of Claims : 7
The present invention relates to a process for removal of heavy metals from effluent waste. The present invention specifically relates to an use of natural adsorbent [Vetiver (Vetiveria zizanioides)] to remove heavy metals such as Chromium (VI) from effluent.

No. of Pages : 10  No. of Claims : 8
Title of the invention: WRISTWATCH BASED HEALTH MONITORING SYSTEM

Abstract:
ABSTRACT TITLE: Wristwatch based health monitoring system The present invention relates to a wristwatch based health monitoring system (100) real time clock (8) with promini microcontroller system (2). The real time clock (8) is inbuilt with I2C device. The invention also comprises of serial clock line and serial data line are dual wires used to transfer address and data by means of I2C bidirectional bus and communicates by means of microcontroller (2). The real time clock (8) also contains a LED display (4) and buzzer (9) connected to promini microcontroller (2) to read and write data in real time clock (8) by means of serial data line and serial clock line ports. The present invention also comprises of lithium ion battery(5) and is connected to USB port (7). The battery (5) is connected to switch to turn on and off the health monitoring system.

No. of Pages : 18 No. of Claims : 4
AEMC-IOT System: Agriculture Environment Managed and Control Using IoT System

Abstract:

An Internet-of-Thing (IoT) method for improving ROI (return on investment) of farming includes placing a plurality of sensor hubs in predetermined locations in a farm, each hub including a meteorological data acquisition system and an environmental data collection system; and monitoring key elements in the growing of plants from a plurality of sensor hubs including lighting, humidity, temp, soil moisture, and elements that influence plant growth. The Internet of things-based intelligent agricultural system includes a data acquisition and control system, a bearing network system, an operation support and management system, an application service system and an application display system; the application service system includes an expert system, an agricultural greenhouse system, a storage logistics system and an agricultural traceability system; and the data acquisition and control system includes a rain sensor, a camera, a wind speed sensor, a temperature sensor and a soil moisture sensor. According to the Internet of things-based intelligent agricultural system of the invention, intelligent agriculture is mainly supported by modern information means; various kinds of data of a monitored object can be acquired accurately and timely through various kinds of sensing acquisition devices such as the environmental humidity sensor, the environmental temperature sensor and the camera; relevant data can be stored in a business support and information management platform through transmission networks such as a mobile Internet and a 4G/5G wireless network, so that support can be provided for relevant business application services; and therefore, monitoring and scientific guidance for the whole process of agricultural production can be realized.
The present invention is related to a system for automatic fog cleaner for visi cooler. The objective of present invention is to solve the anomalies presented in the prior art techniques related to for a visi cooler. The present invention presents the design of low cost automatic fog cleaner for glass panels in visi cooler. These detect the glass door condensation and clean/wipe the same. It represents the new contribution to the cleaning of glass doors. In shops, this work is helpful for non-intrusive sale.
Title of the invention : MEASUREMENT OF FUEL LEVEL IN TANK USING IR SENSORS AND REPORTING USING IOT

Abstract:
Raw cotton in the spinning mills is cleaned using petrol. Petrol is one of the essential fuels. This project is designed for the spinning industries to measure the level of the liquid content in the tanks. The usage of IR sensors and magnetic sensors evade the problem of oxidizing the level probes. Thermistor is a resistive device, which is used as a temperature sensor. The content of liquid/fuel in the tank is monitored by microcontroller. This level is displayed and updated using the IoT module interfaced with the microcontroller.
DETECTION AND PREVENTION OF WHEEL UNBALANCING AND TIRE BURST IN MOVING VEHICLES

Exemplary embodiments of the present disclosure are directed towards a sensor based system and method to detect and prevent wheel unbalancing and tire burst in moving vehicles. The sensor based system to detect and prevent wheel unbalancing and tire burst in moving vehicles comprising: a plurality of sensors configured to provide a sensor data related to tire imbalance, tire temperature to a processing device, whereby the processing device is configured to process the sensor data and analyze, store and then transmit the sensor data to a display unit that displays the values and raises an alarm via a buzzer, whereby the first plurality of sensors are electrically coupled to the processing device. FIG.1

No. of Pages: 24 No. of Claims: 6
IOT (INTERNET OF THINGS) BASED SYSTEM AND METHOD FOR AUTOMATED IRRIGATION

Exemplary embodiments of the present disclosure are directed towards an IOT (Internet of Things) based system and method for automated irrigation. The IOT based system for automated irrigation, comprising: a plurality of sensors connected to a processing device, whereby the plurality of sensors continuously detect the different parameters like soil moisture content, soil temperature, water level and humidity, the processing device aggregating, processing and analyzing the sensor data values obtained from the plurality of sensors to triggers the processing device when the sensor data values exceeds or decreases from its threshold value; and the plurality of sensors, a power supply unit, the processing device, a relay switch and a motor pump are interconnected by a network.

FIG.1

No. of Pages: 24 No. of Claims: 3
A SYSTEM AND METHOD FOR DETECTION OF OBSTACLES ON MOVING VEHICLES ON EITHER SIDE 360°

Exemplary embodiments of the present disclosure is directed towards a system for detection of obstacles in moving vehicles with a broad board having a power supply and is connected to a mini breadboard through a ground pin; a pair of Direct current (DC) motors positioned at the front tyres of the vehicle and are controlled by Open-source electronic prototyping platform; and an ultrasonic sensor detects the obstacles present in front of moving vehicle at a predetermined range, and the ultrasonic sensor consists of trigger and echo pins used to trigger the ultrasonic sound pulses and produce a pulse when the reflected signal is received. FIG 1
A device to promote feeding and scar free treatment of breast abscess during lactation

The invention discloses a device comprising the application of dynamic tape along with a breast abscess drainage pump for treatment of breast abscess during lactation in humans. The breast abscess drainage pump (100) comprises an outer conical-shaped sucker (101), an inner circular-shaped sucker (102) for sucking the pus fluid by compressing gently on the periphery of the pus part of the skin with extended protrusion, a Y-shaped plastic tube connector (103), the bottom end is fixed to the inner circular-shaped sucker (102) to suck the pus, left end is connected to a silicone rubber bulb (104) for vacuum suction, right end is connected to a pus collection bag (107), which enables removal of infected fluids to accelerate healing and promote feeding. The device is non-invasive, safe, and results in scar free closure.

(FIGURE 1)
The present invention discloses an ATM card and fingerprint-based authentication system for online banking using a smartphone, wherein the system comprises the ATM Card Reader and Fingerprint scanner. The system of the present invention secures the online banking system in an efficient manner. The smart ATM card and fingerprint of the customer are required for safe money transaction, such that this present invention can be used for detecting an unauthorized person who tries to access online banking. The ATM card reader reads the personal information of the customer and the fingerprint scanner scans the fingerprint of the user for biometric authentication and also to access the information for approving the money transactions. [To be published with Figure.1]
**Title of the invention:** SENSOR BASED SECURED BANK LOCKER SYSTEM THEREOF

**Abstract:**
In today’s world security plays important role. Each and every person has different accessories like gold, jewelry or cash so in our day today life the security is important to save our accessories. Someone can steal our things in order to overcome we should have a highly security enhanced safety locker system. We can use this system in both public and private sector. We can offer them in cheap cost. In added advantage of this systems we have a camera, which is attached to the systems we can easily access the systems by both educated and illiterate people.

No. of Pages : 15  No. of Claims : 4
(54) Title of the invention : DESIGN AND PERFORMANCE EVALUATION OF HYBRID VEDIC MULTIPLIERS

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(57) Abstract :
My Invention DESIGN AND PERFORMANCE EVALUATION OF HYBRID VEDIC MULTIPLIERS is a Multipliers are one of the essential building blocks of several computational units. The computational units speed is determined by the multipliers speed. To improve the computational units speed, faster multiplier must be necessary. The Vedic multiplier is competent of performing faster multiplication operations. In Vedic mathematics, Urdhva Tiryakbhayam (UT) sutra discards the non-essential steps in multiplication operation which in turn increases the speed performance of a multiplier. In this paper, design and performance evaluation of hybrid 8-bit and 16-bit UT Vedic multipliers are presented. The performances of proposed hybrid UT Vedic multipliers are improved by reducing the garbage outputs, constant inputs, quantum cost, number of total gates, Total Reversible Logic Implementation Cost (TRLIC), LUT™s, consuming power and improving speed compared with other existing conventional and reversible UT multipliers.

No. of Pages : 21 No. of Claims : 8
AN INTERNAL COMBUSTION ENGINE AND A SLEEVE MEMBER THEREOF

The present subject matter relates to an internal combustion engine (101) connected with an exhaust pip (200). The internal combustion engine (101) comprises a sleeve member (350). The sleeve member (350) is disposed at a downstream portion (307) of at least one exhaust port (304) provided on at least one cylinder head (203) of a cylinder head assembly (201) of the internal combustion engine (101). The sleeve member (350) is configured to enhance one or more flow properties of exhaust gas flowing therethrough. The present subject matter enables retention of heat till a longer distance of travel of exhaust gases. Need for disposing a catalytic converter unit (206) near to the exhaust port (304) is eliminated thereby improving life of the catalytic converter unit (206) due to reduced burn-off.

No. of Pages : 27 No. of Claims : 14
**Title:** COVID-19(Coronavirus) Kit: INTELLIGENT THERMAL SCANNING KIT FOR TESTING THE COVID-19 POSITIVITY, NEGATIVE AND DISPLAYING REAL TIME COUNT OF POSITIVE CASE USING IOT, MACHINE LEARNING.

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**Abstract:**
COVID-19(Coronavirus) Kit: INTELLIGENT THERMAL SCANNING KIT FOR TESTING THE COVID-19 POSITIVITY, NEGATIVE AND DISPLAYING REAL TIME COUNT OF POSITIVE CASE USING IOT, MACHINE LEARNING. The Invention COVID-19(Coronavirus) Kit is Support structures for positioning sensors on a physiologic tunnel for measuring physical, chemical and biological parameters of the (human, non-human) body and to produce an action according to the measured value of the parameters. The intelligent support structure includes an advanced sensor fitted on the intelligent support structures using a special geometry for acquiring continuous and undisturbed data on the physiology of the body. Signals are transmitted to a remote station by wireless transmission such as by electromagnetic waves, Micro waves, radio waves, infrared Waves, Ultraviolet Waves, Visible Light Rays, X-rays, Gamma Rays sound and the like or by being reported locally by data, audio, or visual transmission. The physical and chemical parameters include Digestive system, Endocrine system, Integumentary system, Immune system, Muscular system, Nervous system, Renal system, Urinary system, brain function, metabolic function, hydrodynamic function, hydration status, levels of chemical compounds in the blood, and the like. The intelligent support structure includes patches, clips, eyeglasses, head mounted gear and the like, containing passive or active sensors positioned at the end of the tunnel with sensing systems positioned on and accessing a physiologic tunnel also the invention provides a set of sensing systems and reporting means which may be used individually or in combination, which are designed to access a physiologic tunnel to measure biological, physical and chemical parameters. Anatomically and physiologically speaking, the tunnel discovered by the invention is an anatomic path which conveys undisturbed physiologic signals to the exterior.

No. of Pages : 26 No. of Claims : 9
Solid state deposition (SSD) of an alloy surface layer on a substrate without melting the substrate is disclosed. At least one aluminium rod having holes at one end and which are filled with magnesium and zinc pins is used to deposit a layer of aluminum-magnesium-zinc alloy on a substrate of aluminium. Due to the friction between the aluminium substrate and the rotating aluminium rod that contains magnesium and zinc pins heat is generated which melts the magnesium and zinc pins to form aluminium-magnesium-zinc alloy. The plasticized Aluminium-magnesium-zinc material is transferred from the rotating rod to the aluminium substrate and forms a strong metallurgical bonding with mechanical mixing of the material at the interface of the coated layer and the substrate. During the entire process the aluminium substrate and the rotating rod do not undergo melting and stay within the solid state.
(54) Title of the invention : PARASITIC MEANDER STRIP BASED CONDUCTIVE FABRIC ANTENNA FOR COMPLETE COMMERCIAL WIDEBAND APPLICATIONS

(31) Priority Document : NA
(32) Priority Date : NA
(33) Name of priority country : NA
(86) International Application No : NA
(87) International Publication No : NA
(61) Patent of Addition to Application : NA
(62) Divisional to Application : NA

(57) Abstract : This article comprises of meander strip antenna on fabric substrate material for complete commercial wideband band applications. The proposed antenna occupying the compact dimensions of 26X24X0.2 mm on wash cotton substrate material with dielectric permittivity 1.6. A conductive polyester fabric with nickel and copper is used to design the patch and the defected ground plane. This meander strip fabric antenna achieved the impedance bandwidth of 191% (VSWR)

No. of Pages : 12 No. of Claims : 8
Title of the invention: EMERGENCY RESPONSE HANDLING SYSTEM FOR INDIVIDUAL CRISIS AND LARGE-SCALE DISASTERS BY CROWD SHAPING

Abstract:
Natural disaster is a major environmental issue. It creates economic and ecological damage and become a great danger to human lives. Prevention of natural disaster is not a practical task but predicting them is extremely helpful for the authorities to alert the public. A necessary precaution can avoid them and hence reduce the loss of life and the damages caused. The application of crowdshaping, we can detect people’s preferences and interests based on their actions, advances efficient disaster governance. For example, the Cisco Global Sales Experience meeting last August, buses used to move people between the MGM Grand Garden Arena and the Mandalay Bay Convention Center. They used sensors to report the vehicles’ speeds and locations. So that, organizers could instantly dispatch more buses as needed and attendees can also see the data feeds from the buses on a touch-screen dashboard. The Gathering of information especially in real-time is the most challenging task. The main focus of this paper is the novel use of crowdshaping and Machine Learning (ML) technique in natural disaster to improve preparedness. This research uses the application of the state-of-the-art techniques i.e., ML, more specifically Machine Learning (ML) approaches on big data. By using this technique, the data collected from previous disaster events helps us to learn from the past, to extract patterns and information. From the past data, we can understand the disaster behaviours in order to improve resilience, prevent damage, and save lives. Here, the discussion is how crowdshaping can promote disaster resilience in complex adaptive system and to enrich the theoretical research on crowdshaping and disaster resilience.
(54) Title of the invention: DATA INTEGRATION PLATFORM OF UNIFIED PAYMENT INTERFACE FOR SEASONAL ENTREPRENEURS

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8) Dr. Udhayakumar Ramasamy

(57) Abstract:
Beyond every seasonal merchandising is an entrepreneur who is inclined to work twice as hard and smart as the traditional owner of business. Today’s modern world is full of highly efficient technologies and small scale, seasonal large scale entrepreneurs are getting data from it. As seasonal entrepreneurs may see the profit in a particular season, integrating their business operation with unified payment interface makes their job effective and easy. Data integration refers to the act of gathering and combining information from various sources, so that it can be extended to various business ends or specific users, business units, partners or potential solutions. With the help of data integration tool such as xplenty, talend, Adeptia, pipemonk the analysis of the recent payments and the technological trends in the unified payment interface by end-user can be easily gathered which can be further categorized as per the need of seasonal entrepreneurs. The categorized data can be applied in many aspects based on location, type of business, user recent payments and the frequency of how often the payments are done by the end user through UPI. These data are helpful for seasonal entrepreneurs to plan their requirements, improve their business operation and provides greater efficiency that leads to generate high profitability.

No. of Pages: 12 No. of Claims: 7
**Abstract:**
The present invention provides a method for developing real-time personalized, interactive and adaptive videos, wherein the method comprises the steps of creating one or more standardized video template based on the requirement of an enterprise or individual user followed by accepting inputs from one or more enterprises and/or users through placeholders for creating personalized videos. Upon creation of personalized videos, the method enables user interaction with the personalized video by employing one or more web elements, wherein the content of the personalized video is modified based on the input data provided by the user through the web elements thereby making the personalized video to be interactive. Furthermore, the method allows the modification in the flow of the personalized and interactive video thereby enabling the video to adapt according to the user’s preference. (FIGURE 1a & 1b)

No. of Pages : 16 No. of Claims : 7
The abstract of this project is to use the UV rays to kill all viruses like corona virus in the surrounding without use of the chemical disinfectants. The applications are the currency cleaner, cleaner torch, cleaning pathways, cleaner robots, drone cleaners and many other real life applications to fight against the single celled enemies. The future applications will also be extended using the advanced technology and this is applicable in all places.

No. of Pages : 14 No. of Claims : 6
A distinctly compact triple band offset field rectangular patch monopole antenna with metamaterial unit cell is presented. Complementary split ring resonator (CSRR) is used as a metamaterial unit cell. A CSRR etched patch antenna of dimensions 19.18x22.64x1.6 mm$^3$ is designed on FR4 substrate with relative permittivity 4.4 and loss tangent 0.024. The proposed antenna provides a wide bandwidth of 6.13% (4.53-4.78 GHz), 8.509% (5.382-5.84 GHz) and 17.50% (8.98-10.65 GHz) with reasonable gain. The negative permittivity of CSRR and its new resonance creating ability are verified. The proposed antenna is targeted to address C band, WLAN and X band applications.
METHODS AND COMPOSITIONS FOR INFECTIOUS RNA, cDNA, AND mRNA OF SARS CORONAVIRUS.

Abstract:
METHODS AND COMPOSITIONS FOR INFECTIOUS RNA, cDNA, AND mRNA OF SARS CORONAVIRUS. ABSTRACT The invention provides a RNA, cDNA of a severe acute respiratory syndrome (SARS) coronavirus, recombinant SARS coronavirus vectors, and SARS coronavirus replicon particles. Also provided are methods of making the compositions of this invention and methods of using the compositions as immunogens and/or vaccines and/or to express heterologous nucleic acids. The invention provides compositions and methods for detecting the presence of SARS-coronavirus, for screening anti-SARS coronavirus agents and vaccines, and for reducing infection with plus-strand RNA viruses such as SARS-coronavirus and also provides a method for detecting replication of severe acute respiratory syndrome coronavirus (SARS-coronavirus) in a sample, comprising detecting the presence SARS-coronavirus sgRNA in a sample. In one example, sgRNA comprises at least a portion of a leader sequence. The method further comprises detecting SARS-coronavirus gRNA. While not intending to limit the method of detection, in one embodiment, the detecting of gRNA and/or sgRNA is by reverse transcriptase PCR, ribonuclease protection assay, and/or by Northern blot. In another embodiment, the method further comprises quantitating sgRNA and/or gRNA. Also provides a method for detecting the presence of severe acute respiratory syndrome coronavirus (SARS-coronavirus) in a sample, comprising: a) providing: (i) a sample; and (ii) cells, wherein said cells support replication of SARS-coronavirus in the absence of substantial cytopathic effect; b) inoculating the cells with the sample to produce inoculated cells; and c) detecting the presence of the SARS-coronavirus in the inoculated cells. In some preferred embodiments, the cells are chosen from but not limited to HEK-293T, Huh-7, Mv1Lu, pRHMK and pCMK.
This invention deals with the development of part inspection system using Internet of things. The work piece is moved from one place to another with the help of belt conveyor. Sensors are used to check the part inspection. The sensed signals by the sensors are sent to the control unit and the control unit gives the appropriate signals to the DC motor. The part dimensions are stored in the system and it compared the dimension of part being inspected and reject it if any deviation. The system connected using IoT and the rejection rate and inspection rate can be monitored in online. The objective of the invention is to collect the desired products by ultrasonic sensor and dispose the unwanted work piece using rejection mechanism.
(51) Title of the invention: ARTIFICIAL INTELLIGENCE BASED AUTONOMOUS CAR JACK

(57) Abstract:
Exemplary aspects of the present disclosure are directed towards the Artificial Intelligence Based Autonomous Car Jack, which typically consists of Artificial Intelligence Based Autonomous System (AIBAS) 101 mounted on a car jack 102 to lift the car for tyre/wheel replacement. This AIBAS consists of machine learning-enabled camera (MLEC) 101a, High torque DC motor 101b and a Li-Po battery 101c. This AIBAS can be mounted on any type of car jack and can be operated for any type of light motor car. When the camera MLEC 101a is trained with the images of car tyre/wheel in good condition and at flat condition, MLEC 101a will store the data on its internal memory. With one click the MLEC will store the picture to be tracked and simultaneous it can store seven types. Once the jack is kept under the car and turned on, MLEC 101a tracks the size and shape of the tyre/wheel and estimates whether the car is to be lifted or not and how much height needed to be lifted. Then it commands the relay connected to it to turn on the DC Motor 101b which is powered by a LiPo battery 101c. When the motor turns anti-clockwise direction then the threaded rod 102b will rotate in such a way that the gap between 102a and 102c will decrease. This action will cause the 102c to lift the car with the help of support structure 102d. When the car is lifted then the MLEC 101a compares the size and estimates the difference, once the car is lifted then MLEC 101a will disengage the relay to turn off the power to DC Motor 101b. After the tyre/wheel is replaced then either user can instruct the AIBAS 101 by a simple press on a switch or MLEC 101a will ensure that tyre/wheel has changed based on the previous wheel picture and engages the second relay so that the DC Motor 101b will operate in the clockwise direction. When jacks 102c and 102d come in contact the limit switch will open the power supply to the DC Motor and the system. FIG1

No. of Pages: 16 No. of Claims: 4
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<th>(54) Title of the invention</th>
<th>MHIME-MINING SAFETY TECHNIQUES: MINIMIZE THE HAZARDS AND IMPROVISE THE MINING ENVIRONMENT.</th>
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<td>(51) International classification</td>
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<td>(61) Patent of Addition to Application Number</td>
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<td>(86) International Application No</td>
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(57) Abstract:
MHIME-Mining Safety Techniques: MINIMIZE THE HAZARDS AND IMPROVISE THE MINING ENVIRONMENT.
ABSTRACT My Invention MHIME-Mining Safety Techniques to improved disasters taking place by the gases present in the underground coal mines like explosions, mine fire which are the common causes of accidents leading to miner’s death or several injuries. By considering these facts, several mining safety techniques are developed to minimize the hazards and improvise the mining control and update the management environment. However, still, a large number of mines disasters are taking place. The wireless sensor networks (WSN), Robotics, automation, RFID, etc. have shown significant achievement in the early assessment of the hazards. However, the gap between acquiring the data about events, their processing and decision making is still a big issue. Supervision to reduce coal mine safety hidden trouble, raise the level of coal mine safety production management. IoT provides a single platform to communicate, collaborate and coordinate with the above ubiquitous techniques, the invention takes a glance at the application of IoT for establishing safe and secure underground coalmine activities. There has thus been broadly outlined the more important features of the invention in order that the detailed description thereof that follows may be better understood, and in order that the present contribution to the art may be better appreciated. There are, of course, additional features of the invention that will be described hereinafter and which will form additional subject matter of the claims appended hereto. Those skilled in the art will appreciate that the conception upon which this disclosure is based readily may be utilized as a basis for the designing of other structures, methods and systems for carrying out the several purposes of the invention.

No. of Pages : 22 No. of Claims : 8
Abstract:
Exemplary embodiments of the present disclosure are directed towards a system for maximum power point tracking based on shading pattern identification, comprising: an artificial neural network tool configured to display a plurality of patterns on a computing device, the plurality of patterns represent photovoltaic energy under an uniform irradiance and a partial shaded condition, the plurality of patterns obtained from the artificial neural network tool and temperature of at least two solar panels fed to at least one two-dimensional lookup tool to get maximum power point tracking; a plurality of gate pulses is obtained from a PWM circuit, whereby the PWM circuit is driven to switching element in a DC-DC boost converter, the DC-DC boost converter comprising at least one filter capacitor, at least one filter inductor, at least one DC capacitor, at least one switch, and at least one load. FIG. 3
Exemplary embodiments of the present disclosure are directed towards a standalone photovoltaic inverter with reduced harmonic distortion comprising of: two voltage points configured to decide the shading pattern on the PV panel surface and the two voltage points are calculated and given to artificial neural network along with temperature on the photovoltaic (PV) panel surface to obtain the corresponding patterns which are obtained from artificial neural networks (ANN) and temperature on the panel surface is fed to the 2-Dimensional lookup table to get exact MPP of PV system and the patterns generated are subjected to analysis.

No. of Pages: 18 No. of Claims: 8
Health maintenance is a major concern for all human beings. Especially people who are working continuously don’t take enough time to maintain their health including their kids/old aged parents’ health. In this model we propose an approach that helps the individual to keep track of their health along with their family member health. By using this application the diseases which they are yet to subjected with will be known earlier well in advance. Proper medications and care be done beforehand. This can be implemented by using various machine learning algorithms which keeps track of all the body parameters in a frequent cycle. Once the values exceeds at a certain point then it checks out the possibility of harmful things that can arise in our body related to that parameter. Due to this the person can be aware of dreadful and harmful situations.
**Title of the invention:** TRACKBOT: A QUICK-WITTED ROBOT FOR DETECTING CRACKS AND MISSING KEY IN RAILWAY TRACKS WITH UNMANNED SAFEGUARD GATES

### Abstract

An autonomous railway track fault and key detection system in which inspecting every nuts and bolt to detect any faults or defects on the track. This system is for Railway key man who walks every day inspecting these defects. The aim is to build a robot that can analyze any kind of fault on the track and send the coordinates of the location to the concerned authority/Control Room. It includes Laser, GPS, GSM modules and Raspberry Pi-based track detection assembly. Laser light will pass through the track in order to detect the crack. A camera is used to find the key whether it is opened or closed. The camera captures the images and undergo image processing. All the results will be passed to the Raspberry Pi which acts as a microcontroller and with the help of GSM and GPS modules, an alert message will be sent along with geographic coordinates of the particular location to the mobile number/control room, which has been already saved in the robot.

No. of Pages: 5  No. of Claims: 6
The present invention provides chitosan based multifunctional liquid biofertilizer comprising carboxymethylcellulose, polyvinylpyrrolidone, glycerol, chitosan and at least one plant-growth promoting rhizobacteria selected from Bacillus sp. RS4T, Labrys endophyticus RP1T and combinations thereof. The invention represents an advancement in the field of biofertilizers. The liquid biofertilizers of the present invention exhibit high plant growth promotion activities, improved shelf life/stability, leads to avoidance of environmental pollution and is an improvement over commercially available biofertilizers.

No. of Pages : 36 No. of Claims : 10
(54) Title of the invention: VIRTUAL BRAIN CLONING: TELEPATHIC DATA COMMUNICATIONS WITH VIRTUAL REALITY HOLOGRAPHIC PROJECTION USING ARTIFICIAL INTELLIGENCE

(57) Abstract:
The present invention Virtual Brain Cloning: Telepathic Data Communications with virtual reality holographic projection using Artificial Intelligence service for allowing relates to the creation of Artificial Intelligence approach telepathic data communications based Biosignals wave formation conversion into a digital signal and/or all those operations automatically stored on internet with viewed on encrypted application formation with Stable digital identities and enhanced security features enabling personal identity and continues process using enhanced concepts such as audio, Voice streaming-based and biometrics, current live location tracking, and eliminating the need for physical and virtual kiosks with viewed on every device such as virtual holographic projection with required language translations. Finally, the user can upload and download their thoughts and dreams into the Internet using multi Sensor and if user expired, but brain all functionality run same as when he/she was living time, later virtual clone brain interact with their relationships such audio and video with imaginary streaming virtual holographic projection run from online identified block storage sources from the internet and also works the same manner such as problem-solving, decision making, along with memory management operations. The benefit of this proposed technology could help restore the ability to speak in people with brain injuries or those with neurological disorders such as epilepsy, Alzheimer’s diseases, and multiple sclerosis, heart stroke, paralysis, Parkinson’s diseases and after death the brain functionality works same as currently working structures, and our bodies with soul lost but virtually we are able to store all functionalities with predict mimic behavior run same as it is.

No. of Pages: 43 No. of Claims: 10
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<td>(51) International classification</td>
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<td>(33) Name of priority country</td>
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<td>(86) International Application</td>
<td>NA</td>
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<td>(87) International Publication</td>
<td>NA</td>
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<td>(61) Patent of Addition to Application</td>
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<td>(62) Divisional to Application</td>
<td>NA</td>
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<tr>
<th>(71) Name of Applicant</th>
<th>1) Dr. Srinivasulu Gundala</th>
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<tbody>
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<th>(72) Name of Inventor</th>
<th>1) Dr. Srinivasulu Gundala</th>
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<tr>
<td>2) Dr. M Mahaboob Basha</td>
<td></td>
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<tr>
<td>3) Dr. Kommu Siddhartha Mavovarakumar</td>
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| (57) Abstract | A Digital circuit do voltage level shifting, the circuit includes a short circuit aware MOS transistor and a transmission gate based voltage level shifting; wherein the digital circuit comprises 2 X 1 Multiplexer to select VDDH or VDDL with one NMOS transistor and one PMOS transistor in the level shifting selection stage; wherein the digital circuit receives an input voltage (VIN) from the multi voltage supply circuits and produces an output voltage (VOUT); wherein the input VIN has a voltage swing between VDDL and VDDH supply voltage or rail voltage; wherein the output VOUT has a voltage swing between VDDH and VDDL supply voltage or rail voltage; and wherein the level shifter circuit selects type of level shifting in response to a level of the input voltage. The short circuit aware MOS transistor and Transmission gates as switching elements provides low power consumption and Delay even at higher frequencies. |

No. of Pages : 15 No. of Claims : 5
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(54) Title of the invention: DEVICE AND METHOD FOR AUDITING ELECTRICAL ENERGY

(51) International classification
: G06Q0050060000, H02J0003140000, G01R0019250000, G01R0021000000, G01D0004000000

(31) Priority Document No
: NA

(32) Priority Date
: NA

(33) Name of priority country
: NA

(86) International Application No
Filing Date
: NA

(87) International Publication No
Filing Date
: NA

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

(62) Divisional to Application Number
Filing Date
: NA

(57) Abstract:
A device and a method for auditing electrical energy are disclosed. The device also includes an electricity monitoring subsystem configured to monitor data associated with an electricity consumption in a predefined location. The device also includes a disaggregation subsystem configured to disaggregate the electricity consumption monitored by the electricity monitoring subsystem of the predefined location into one or more electricity consuming assets. The device also includes a parameter capturing subsystem configured to capture one or more parameters associated with each of the one or more electricity consuming assets. The device also includes an identification subsystem configured to identify the one or more electricity consuming assets in the predefined location. The device also includes a pattern determining subsystem configured to determine a pattern of the electricity consumption from each of the one or more electricity consuming assets. FIG. 2

No. of Pages: 25 No. of Claims: 10
(21) Application No. 202041017114 A

(19) INDIA

(22) Date of filing of Application: 21/04/2020

(43) Publication Date: 05/06/2020

(54) Title of the invention: AN IMPROVED AUTO TRANSMISSION ENERGY BOOSTER

| (51) International : B60K0017344000, F16H0037020000, H02K0007116000, F16H0035000000, C21D0009320000 |
| (31) Priority Document : NA |
| (32) Priority No : NA |
| (33) Name of priority country : NA |

(86) International Application No : NA

(61) Patent of Addition to Application Number : NA

(62) Divisional to Application Number : NA

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(57) Abstract:
An improved auto transmission energy booster (100) comprises an input shaft (128) and an output shaft (130) disposed concentric to each other, a lay shaft (136), a driving gear (132) disposed on the input shaft (128), a low ratio gear (144) and a high ratio gear (146) disposed on the output shaft (130), a driven step-up gear (134), a first drive gear (142) and a second drive gear (148) splined fitted on the lay shaft (136), a casing (112) to contain the gears (132, 144, 146, 134, 142, 148), the lay shaft (136) and at least a portion of the input shaft (128) and the output shaft (130), and fins (114) disposed on the casing (112). The fins (114) dissipate heat from the improved auto transmission energy booster (100) to the surrounding. Reference figure: FIG. 1

No. of Pages: 16 No. of Claims: 8
An apparatus and method to upgrade and augment stalled machines running on combustion type engines - otherwise incapable of operation in extreme environmental conditions, is disclosed. An Intelligent Energy Control & Monitoring Circuitry Module [27] which self-regulates, self-sustains the energy content of the system, and augments the functionalities of the BMS [21], is capable of surge-draws from a lean, lightweight, portable Battery bank of just 7 cells, catering to multiple high power demands from 400 A up to 1500 A, sustainable for at least 10 - 40 seconds each, thus obviating the need for ground supported AC power. The apparatus outstrips the Battery manufacturer™s specifications of installed capacity, by more than 85%, and outstrips the manufacturer™s specifications as to operating temperature range, by more than 65% - from -40 through +60 degrees C. To be published with Figure 4.
The present invention is related to a wearable device for monitor and control the mental stress during isolation. The objective of the present invention is to solve the problems in the prior art related to adequacies in the in techniques and technologies in the monitoring of mental and physical health of a person who is isolation or in lockdown scenario.
An irrigation system includes a moisture sensor, a process control unit, a water tank, a piping assembly, and a solar power unit. The moisture sensor detects a moisture level of the soil and generates a signal on detecting the moisture level in the soil is reduced than a threshold value. The process control unit initiates the operation of a piping assembly. The water tank is positioned at a median strip that separates an opposing lane of a divided roadway to store water for irrigation. The piping assembly irrigates plants planted on the divided roadway. The process control unit stops the operation of the piping assembly on receiving the signal from the moisture sensor indicative to the moisture level more than the threshold value. The solar power unit supplies power to the moisture sensor, the process control unit, and the piping assembly. The most illustrative drawing: FIG. 1.

No. of Pages : 23 No. of Claims : 4
ILED- FACIAL MASK: INTELLIGENT LED (LIGHT-EMITTING DIODE) FACIAL MASK DEVICE CONTROL BY ML PROGRAMMING.

Abstract:
The invention "ILED- FACIAL MASK" is an LED (Light-Emitting Diode) facial mask device, which is characterized by comprising a main mask body, wherein LEDs are distributed on the main mask body; the encapsulating ends of the LEDs are positioned on the inner end face of the main mask body which is jointed with a human face; and the LEDs are connected with one another through electric leads. The LED facial mask device has a reasonable design and a good beautifying effect using machine learning programming, is comfortable for wearing, acts on the face skin under the lower-grade optical pulse actions of the LEDs distributed on the main mask body, and is directly applied to mitochondria for improving the potential energy of skin cells. Due to the adoption of the facial mask device, the LEDs can irradiate stably and reasonably on the face skin, and the light action efficiency is increased; and moreover, the facial mask device is convenient to use and has low energy consumption.
Title of the invention: A NOVEL METHOD TO TRANSMIT THE ELECTRONIC MEDICAL RECORDS IN SECURE CLOUD ENVIRONMENT USING BLOCKCHAIN-ENCRYPTED DATA SHARING (BCEDS)

Abstract:
We have an outstanding remedial facility in health care with good diagnostics and diagnosis expanding the days on earth. Humans have also been identified with numerous complex health threats of short / long-term acute / chronic effects. As a childhood lecture, prevention is safer than treatment." The eventual continuation of everyday life produces further threats to safety in a dynamic linear way. Predicting and avoiding these threats is also the only way to overcome them. Prediction and avoidance aid in efficiently tracking and diagnosing public safety criteria in real time. Introduction of blockchain in the preservation of health data is increasingly gaining further publicity in order to produce the best potential result. Blockchain is a distributed, decentralized list of records that is encrypted and stable. Patient data sensed by sensors was registered and sent as an authenticated message in a cloud setting to be exchanged within a network organization. The server or other person accessing the network must be authenticated before accessing the protected electronic health record. Here we suggest Blockchain-Encrypted Data Storage (BCEDS) use authentication protocols to access electronic health information in a safe and efficient manner. BCEDS utilizes cryptographic algorithms to encrypt and authenticate the exchange of patient info.

No. of Pages : 0
No. of Claims : 0
Abstract:
Trailblazer incorporates the functionalities of a CNC (Computer Numerical Control) machine for prototyping PCB™s (Printed Circuit Board) without the use of common chemical etching method. The user has to insert a neatly toned copper clad to the machine and it produces a UV solder mask coated, High quality PCB which is ready to solder. The circuit design converted into corresponding G Code and transferred to CNCController via USB. The circuit design is printed on the PCB using milling process. It is a subtractive process in which unwanted areas of the copper clad is being precisely grinded off using milling tools. Since the machine incorporates a 3-axis motion control it can be customised for various tasks like 3D Printing and Laser Engraving by simply replacing the tools. Trailblazer can be used by the students and enthusiast to fabricate high quality PCB’s at low cost, Crafting and 3D models for their Hobby/Academic projects.

No. of Pages : 14 No. of Claims : 6
The present invention relates to an intelligent wireless communication enabled individual safety assurance system, more particularly facial and behavior data processing and internet of things supported person identification through capturing of facial information which facilitates current location information and also surrounding environment in real time, comprising: a wireless communication enabled central processing module, said module is having built-in internet of things architecture and also interfacing with digital image processing system; a facial image capturing camera device to capture facial information and also background; and a remote server wirelessly coupled to the central processing module configured to receive the captured facial and also background information from the camera device, and process the facial recognition and also behavioral analysis of a user to generate an alert text message in mobile phone.

No. of Pages : 19 No. of Claims : 9
(54) Title of the invention : METHOD OF PREPARING ANTI-MICROBIAL FACE MASK

(51) International classification : A41D0013110000, D01F0006460000, B32B0005020000, A01N0025340000, A61L0015460000

(31) Priority Document No : NA
(32) Priority Date : NA
(33) Name of priority country : NA

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

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

(57) Abstract :
ABSTRACT METHOD OF PREPARING ANTI-MICROBIAL FACE MASK The present invention provides a novel and improved method of making biodegradable face mask wherein the steps comprises heating water with at least one antimicrobial plant extract to prepare dye bath; immersing organic fibre into the dye bath for 10-20 minutes; adding one or more herbal mordant to the bath; subjecting the bath to a heat treatment for at least 45-60 minutes to obtain dyed fibre; and converting the dyed fibre into nonwoven fabric. Further, the present invention provides a biodegradable face mask made comprising plurality of layers made of nonwoven fabric; an inner layer having at least one antimicrobial agent; and one or more mordant.

No. of Pages : 34 No. of Claims : 13
Cosmetics play a significant role in enhancing one’s inherent beauty and physical features. Consumers are more conscious regarding the usage of cosmetics in their daily life. Beauty and cosmetics are one of the particular industries standing out because of its uniqueness. Improvement of cosmetics in the current lifestyles of the individuals is majorly affecting the market and the growing demand of cosmetic products has in turn led to the growth of cosmetics market across the world. Traditional customer segmentation tools cannot provide the single view of your customers and it lacks the ability to match various interactions to a unique customer. We needed a new path to understand our customers in a structured and shared manner. Segmentation Tactics for Beauty and Cosmetics Brands is a part of ongoing series for ecommerce brands by industry. The frequent change in customer behavior and need in today’s market allows marketers to take decisions based on dynamic changes. The customers can be classified based on their value using the RFM model and K-means clustering method. Techniques like decision trees, clustering algorithms in different areas like commerce have been used to solve customer problems and allows to formulate new strategies. Clustering techniques changes the customer value over time to bring a new approach to the customer segmentation. The main goal is to group the clients in customer segments by using a K-means clustering technique and using the RFM (recency, frequency, monetary value) approach, we can analyze the customers.
This innovation is to develop a system for plant monitoring and disease detection using the concept of IoT and Image processing with the help of deep learning technique. The camera with high resolution captures the image in such a way that it subtends its maximum view of the plot. The images captured by the camera will be processed and compared with trained datasets i.e., images of diseased and healthy plants using the technique called deep learning technique with the help of CNN algorithm, which will train the control unit to distinguish between healthy and unhealthy plant. The output includes display of numerical value which denotes the percentage or probability of diseases present in the plant for every real time image input from the camera. The predicted output will be updated in the server by IoT. If any variations in data or disease detected, the required information of that plant will be recorded and will alert the farmers through notifications popping up in the phones of farmers. This proposed model will be helpful for farmers and gardening purposes that will enable the observation and management of the field without any user intervention and contributes to smart agriculture and empowers farmers with the decision tools and automation technologies that seamlessly integrate products, knowledge and services for better productivity, quality, and profit.
Title of the invention: DESIGN OF A SINGLE SMART HANDHELD DEVICE FOR CONTROLLING AND DIAGNOSIS OF ASTHMA

Abstract:
Susceptibility to different respiratory diseases, especially asthma, has increased due to changing environmental conditions. Chronic Obstructive Pulmonary Disease (COPD) is a life-threatening syndrome and a chronic lung disease that makes it difficult to breathe. This has led to contribute to a proposal for the development of a product that incorporates the inhaler technology used by asthma patients along with real-time tracking of the environmental conditions that triggers asthma and COPD. The proposal aims at developing a low-cost, portable unit consisting of a MEMS pressure sensor for detecting patient’s airflow moving out of the lungs. With this, COPD can be detected in advance, by distinguishing between the level of asthma and COPD. The system measures different asthma triggers of the surrounding atmosphere, analyzes these factors, determines and gives a clear indication of air quality to the patient. The patient can use this data to self-manage their asthma. The recording of data and alerts can be done on a real-time basis using an android mobile application which is connected to the device using Bluetooth. The mobile application is also accessible to the doctor, enabling him to view all the details about the patient condition. It also records the number of times, the date and time at which the inhaler has been used. This application can alert the patient to take medicine on time.

No. of Pages : 14 No. of Claims : 8
The present invention provides an automatic sensing hygiene fluid dispensing device, which comprises a Fluid chamber to store the hygiene fluid, a fluid level indicator used to indicate a predetermined threshold quantity of hygiene fluid left in the fluid chamber, an ultrasonic sensor that senses human hand to be sanitised; and an outlet hose provided on top of the Fluid chamber to dispense a predetermined amount of hygiene fluid to the user’s hand, wherein, the automatic sensing unit enables the DC pump to eject out a predetermined amount of hygiene fluid. When the amount of hygiene fluid in the Fluid chamber is gradually used up and reaches a predetermined level, the Fluid level indicator function senses the level of fluid, the Arduino gets the signal from the Fluid level indicator function, and creates an alarm in order to alert the maintenance personnel to refill the fluid chamber. In operation, when a user brings the palms below the ultrasonic sensor, the ultrasonic sensor is automatically turned on to switch on the DC pump to automatically pump out the hygiene fluid, so that the concern of the hand touching the fluid chamber or any other part of the dispenser is eliminated. The ultrasonic sensor applies a delay time to dispense the predetermined amount of hygiene fluid after a user brings his/her palm to the proximity of the sensor, hence avoiding unwanted dispensing, and reduces wastage of the hygiene fluid. Also the ultrasonic sensor is trained to actuate the DC pump to dispense the hygiene fluid by maintaining a specified time interval between two occurrences of hygiene fluid dispensing.
Renewable energy is the need of the current situation, hence has growing interest such as photovoltaic energy based on SPA technique. Focus is due to the wide awareness created towards environment along with higher cost of the conventional energy. Efficient maintenance of photovoltaic panels has to be done for the system to work in a significant way. This invention proposes SPA technique for the maintenance of the photovoltaic panels which involves smart method of maintenance involving three phases. These three phases are mapped in a technical way such that maximum power is generated from the solar energy. In the system of photovoltaic energy, positioning of the photovoltaic cells is such that they have sunlight exposure for transforming the energy. The energy is transformed by flow of electrons in the photovoltaic cells from one layer of the semiconductor device to other layer. Maximum efficiency is obtained from the photovoltaic cells using SPA technique without any loss of energy. The three phases being sensing, planning and acting which are implemented in a controlled way for providing the best result than the other products in the current era.
Training performance is enhanced by conducting teamwork with various parties who perform backspreading along with a neural network who integrates all data sets. None of the parties shall reveal private data to other parties during this phase. Such method of collective learning is assisted by current systems which are constrained in the partitioning of data or by considering just two parties. Collaborative learning feedback is given by a partitioned data collection that enables two or more parties to miss a solution. This innovation addresses the issue by the usage of cloud processing resources. Private data of each group is authenticated locally and transmitted to the cloud with the cipher language. Operations used in the learning process are conducted by a cloud over a cipher text without the knowledge of the original data of a private party. Effective projects are safely dumped to the cloud to reduce connectivity and processing expenses. Flexible operations are facilitated by the encryption algorithm over encrypted text.

No. of Pages : 10
No. of Claims : 6
(54) Title of the invention: METHOD TO DETECT HEAT BLOCKS USING CONTACTLESS SENSOR

(57) Abstract:

In this invention, we are finding the heart blocks by sending a UV rays which is sensitive to find the length of the blocks and width of the blocks in the heart. Before we are going to find we should separate a vein and the blood circulating tubes and we should know the properties of blood, heart, and the tissues in a body to separate them. The blood has a red blood cell, white blood cells, platelets, cell fragments, molecules, and debris. The blood has a colloidal osmotic pressure of blood, it means it will create a relative water molecule. Then we should know the blood function. We have eight important factors to know. In basic, the blood is fluid connective tissue, it provides the body cells with oxygen and removes carbon dioxide. Blood transports nutrients and hormones, Blood regulates body temperature, platelets clot blood at sites of injury. Blood brings waste products to the kidneys and liver. Red drops of blood cells are the most numerous living cells in the blood. white blood cells protect the body from pathogens. The mechanism of heart it which react for muscle cells are unique and it is responsible for electrical signal in a node. Then we have a controller it which controlled all the signals and we are going to find the blocks in the heart. Initially the human begin will stand for 90 degrees in vertical direction then we will press the scanner in a trigger button it send a UV rays then it will scan the human heart it will detect the blood tubes and the blocks and their length and breadth of their dimension of the heart.

No. of Pages : 16 No. of Claims : 3
**Title of the invention**: DEVELOPMENT OF SEMI AUTOMATIC ABRASIVE JET MACHINE BY USING CNC PROGRAMMING

**Abstract**:
Abrasive Jet Machining (AJM) is the process of material removal from a work piece by the application of a high speed stream of abrasive particles suspended in a gas medium from a nozzle. The material removal process is mainly caused by brittle fracture by impingement and then by erosion. The AJM will chiefly be used to cut shapes, drill holes and de-burr in hard and brittle materials like glass, ceramics etc. The aim of this work is to cut the hard metals automatically by using CNC programming. Care has been taken to use less fabricated components, because, the lack of accuracy in fabricated components would lead to a reduced performance of the machine. The machine was be automated to have 3 axes travel using microcontroller and driver arrangement along with stepper motor. The different functional components of AJM are the machining chamber, work holding device, abrasive drainage system, compressor, air filter and regulator, abrasive nozzle, and mixing chamber with cam motor arrangement. The different components are selected after appropriate design calculations.

No. of Pages : 10  No. of Claims : 5
The present invention discloses an Intelligent Vision Camera System (IVCS) integrated smartphone architecture, which comprises the smartphone with the intelligent vision camera unit to capture the different scenes for photography based on their fundamental properties. Normally, for every scene of photography, the camera parameters like Aperture, ISO, Shutter Speed, Exposure mode, Focus Mode, Depth of field, and Resolution will be changed manually, but in this present invention all the parameters will be adjusted automatically in all the cameras for focusing the required scene. The values of every parameter included in the IVCS will be varied for each scene while focusing through the intelligent vision camera. Here, the Rider optimization algorithm is applied to optimize the parameter and adjusted it in the camera system. Thus, our invention captures any kind of image by focusing it automatically with the optimized camera parameters. [To be published with Figure.1]
The present invention discloses the speech recognition based automatic digital documentation inbuilt with wireless mike, which comprises the wireless mike with coupler, amplifier, volume controller, and voice recorder. The major contribution of the present invention is to generate an automatic digital document based on its recognized speech signal. Generally, the students are stuck while taking notes during the conference, workshop, or in any kind of meeting, since the lecturer may be fast while lecturing to complete their topic within the given duration. So, the present invention is developed for this purpose to generate the digital documentation regarding the lecturing notes through the voice recorder, and speech recognition of the lecturer. The circuit in the present invention reproduces the captured sound signals through a microphone on a loudspeaker, which is made with the help of a two-stage amplifier. [To be published with Figure.1]
(51) International :G06Q0040060000,H04N0021482000,G06Q0020360000,G06Q0030060000,G06Q0050000000
classification
(31) Priority
Document :NA
No
(32) Priority
Date :NA
(33) Name
country
Priority :
NA
(86) International
Application :NA
No :NA
Filing
Date
(87) International
Publication : NA
No
(61) Patent
of Addition
to Application :NA
Number :NA
Filing
Date
(62) Divisional
to Application :NA
Number :NA
Filing
Date
(57) Abstract :
SYSTEM AND METHOD TO FACILITATE LEARNING OF MANAGEMENT OF VIRTUAL ASSETS ABSTRACT A system to facilitate management of virtual assets is disclosed. The system includes a profile generation module, configured to generate a profile for a user following registration. The system includes an investment proposal module, enabling the user corresponding to the profile generated to invest on one or more virtual asset formats. The system includes a virtual credits module, enabling the user corresponding to the profile generated by the profile generation module to access a plurality of virtual credits. The system includes an investment ranking module, providing rank to the profile generated based on performance of the investment on each of the one or more virtual asset formats. The system also includes a profile interaction module, enabling a real time interaction between each of the user for investment strategies. The system provides a gamification approach in teaching an individual about investment strategies. FIG. 1

No. of Pages : 26 No. of Claims : 10
Title of the invention: FUZZY ROUGH SETS THEORY - WEB AND MOBILE BASED RECOMMENDATION SYSTEM FOR STUDENTS CAREER

International classification: G06Q0010100000, G09B0007020000, G06Q0050200000, G06Q0030020000, G06Q0010000000

Priority Document No: NA
Priority Date: NA
Name of priority country: NA
International Application No: NA
Filing Date: NA
International Publication No: NA

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Name of Inventor:
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2) C. Raja Kumar

Abstract:
The present disclosure is directed to methods and systems for identifying career recommendation system based on education domain. Recommendation Systems (RS) is capable to perform an eminent task in the internet world; Collaborative Filtering (CF) is one of the popular methods in RS. At the maximum, RS is implemented in a business intention to recommend the products, movies, travel guidance etc. But in this work, the efficient advisory tool is developed for the younger generation to choose their right career based on their knowledge level. Finding the student's mental ability and the acquired knowledge from their given data is the major aspiration of this advisory tool. RS suffers the data sparsity problem, recommendation in accuracy and big error in predictions etc., CF based RS is used to prevent the data sparsity issue and less accuracy. So, a hybrid FRST-IBCF-CB technique is proposed for reducing the big error in RS prediction. Web based FRST-IBCF-CB technique is used to develop the student career recommendation system. Here, cross validation approach is considered for segregate the dataset into training set and test set of the common repository data. Root Mean Square Error (RMSE), Mean Square Error (MSE) and Mean Absolute Error (MAE) values are determined to measure the rating prediction accuracy. To evaluate the entire students™ career recommendation system, real time data is collected from engineering students. With the help of that student™s feedback, the metrics like true positive, false positive, true negative and false negative are measured to find the correctness of the proposed model. Accuracy of the students™ career recommendation system is 85% and career wise classification precision values are more than 80%. Android OS based Mobile app is developed for the student's career recommendation system. To achieving this, the packages of the R Language “shiny” and “recommenderlab” is used to build the core part of the proposed model. The Android's component WebView is used to fulfill the Mobile App development.

No. of Pages: 26 No. of Claims: 3
A device for interacting with at least a person within a work area, comprises: a chassis 001; a solid base 005; a plurality of wheels 010; a driver module 203; a plurality of indicators 007; a load tray 004; a plurality of hands 006; a plurality of mudguards; a voice recognition and speech module 008; a communication module; an array of infrared sensors 208; a power supply unit; at least a memory; at least a castor; at least a speaker; and at least a control unit 009. The device is configured to perform a task within a desired work area. The task includes, but is not limited to: taking classes and guest lectures; welcoming chief guests by delivering mementos through a voice note; answering queries; giving instructions; and handing over items, such as scissors for the cutting of ribbons, and food to patients in a hospital. Figure to be Included is Figure 1

No. of Pages : 34  No. of Claims : 10
A smart suitcase 100 comprising a housing 102, a microcontroller 112 with internal 112a and external memory 120, wheels 106, buttons 118, load cells 110, locking assembly 108, load cell amplifier interfaces 114, real-time clock module 112b, power supply module 112c, and display device 116 is disclosed, where all parts except the load cells 110 and wheels 106 are embedded within an outer surface of the housing 102. The load cells 110 are sandwiched between the housing 102 and the wheels 106 and convert pressure exerted by user luggage into electrical signals, which are amplified and conveyed by the load cell amplifier interfaces 114 to the microcontroller 112 for processing and storing a consolidated weight. A press of a button 118a after locking the smart suitcase 100 displays the consolidated weight on the display device 116 along with a time stamp added by the real-time clock module 112b. FIG. 1
The present invention envisages a single cell hybrid capattery energy storage system comprising: a battery electrode; a bipolar electrode; a first separator interposed between the battery electrode and the bipolar electrode forming a battery sub-cell; a capacitive carbon electrode; and a second separator interposed between the bipolar electrode and the capacitive carbon electrode forming a supercapacitor sub-cell. The bipolar electrode acts as an anode for the battery sub-cell which when charged releases electrical energy against the capacitive electrode that absorbs the electrical energy. The battery electrode is a carbon coated battery electrode. The bipolar electrode is made of nanodots of lithium titanium oxide impregnated carbon matrix.
Abstract In the extent of home automation, a little progress has been made towards keeping smart containers in the kitchen. Due to an absence of effective organization of food items, it can create various issues like buying same item twice or forgetting to buy the utmost needy item, etc. The primary concern in this smart pantry is, it can minimize the amount of time spent for shopping grocery items. It can save the time unnecessarily spent either on grocery shopping malls or searching on online grocery stores. The weekly time spent in a grocery shopping market for a common user is 30 to 40 minutes per visit. Furthermore, those who prefer for monthly shopping, they spent 3 to 4 hours per visit to a grocery shopping mall. Due to the intelligent food storage system, it can save the huge amount of important time spent on preparing the grocery list and buying those items. Moreover, the inability to find the purchased grocery items stored within the house can lead to food expiration also leading to unnecessary buying of the same item repeatedly. On an average, a common family unit wastes Rs 44,000 worth of food every year, a large amount of which is a consequence of food or grocery expiration. The intelligent food storage system aims to provide a solution for the above mentioned problems in the form of cloud enabled pantry storage. The product will make use of Arduino Uno to process the necessary data and Raspberry pi 3b to store the processed data in the cloud. This online pantry not only aims to provide the busy users with convenience and peace of mind but also to prevent food wastage and saves money by automating the process of storing pantry information. Objectives: 24/7 real time updating the pantry data by using sensors inside the smart containers present in the kitchen. Spoilage alert if any. Android interface which can be accessed anywhere and anytime. It can used to detect spoilage in food. Can prevent food wastage by avoiding excess buying of unnecessary products. Can be used in shops to save time and money. Keywords: IoT, intelligent storage, cloud computing, smart containers, data processing
VEHICULAR POLLUTION MONITORING AND RISK MANAGEMENT SYSTEM

The present invention relates generally to the field of air pollution monitoring system, particularly to vehicle pollution monitoring system which is monitored through an attached device along with exhaust system of two stroke and four stroke vehicles, comprising: a plurality of air pollutant measuring sensors to measure the air quality related parameters, and a central device wirelessly coupled to the remote center placed in pollution control board configured to receive the measured quality related parameters data from the sensors, and process the measured quality related parameters data to generate an alert text message or alert notification in website; upon receiving the alert message, the ignition unit of vehicle will be stopped from remote location by the privileged central pollution control authority in the manner when the particular vehicle exhaust pollutant gaseous substances are higher than permissible.

No. of Pages : 22 No. of Claims : 10
Title of the invention: A PROCESS FOR SURFACE MODIFICATION OF A DENTAL IMPLANT

Abstract:
ABSTRACT A PROCESS FOR SURFACE MODIFICATION OF A DENTAL IMPLANT The present disclosure relates to a process for surface modification of a dental implant. The process is simple and rapid. A surface modified dental implant of the present disclosure has improved biocompatibility.

No. of Pages: 23 No. of Claims: 10
Current online healthcare services Electronic health records (EHR) / Electronic Medical Records (EMR) play an important role in the store, distribution and maintain patient’s medical data. Implementing the EHR system in a cloud environment offers many options, including ubiquitous access, elastic computing resources, high-grade fault tolerance, and differentiation with other systems. Cloud storage solves the problem of storing complex medical data in rest mode, while Cloud Service Providers (CSP) in transit is treated as non-covered units. Therefore, the CSP does not provide a guarantee for securely access EHRs data between authorized users in a cloud environment. Therefore, security and privacy become major barriers to sharing EHRs data in cloud environments. To overcome these problems, we have introduced blockchain technology in cloud environments to securely transfer EHRs data between authorized entities. Blockchain technology provides a data ledger-based feature that can be distributed to the entire registered user in the network. This approach is a tamper-proof mechanism because every health transaction in the blockchain is stored as hash values. It can guarantee the security and privacy of e-health information in the cloud. The construction of this innovative advancement coordinating cryptographic components gives a safe and productive system for efficient storage, transfer, and use of electronic health records in cloud environments.

No. of Pages : 16 No. of Claims : 3
**Title of the invention:** SYSTEM AND METHOD FOR LAND REGISTRY USING BLOCKCHAIN TECHNOLOGY

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**Abstract:**
In today’s scenario many news related to counterfeit land titles, fraud land registry, delay in ownership transfer, involvement of government officers in fraudulent activities are frequently being heard. However, this clearly depicts that the existing land registry system is not efficient to provide security and timely settlement of transaction between the seller and buyer. In order to solve this problem we proposed a blockchain based land registry system in this chapter. The specialty and popularity of blockchain technology is its transparency and security. Blockchain is being inculcated with the trait of persistency, immutability, decentralization. It ascent to new opportunity of efficiency & cost saving. It can provide right framing for digital asset, online payment, & transfer of remittance. Additional to this it can check upon black money laundering. Enterprise that can use blockchain technology can gain faith of consumer. In this invention, we proposed a decentralized application (dApp). In particular, for creating and deploying the smart contract we used Ethereum network. The deployed contracts are interacted through frontend web pages. React is used for the development of web page. For server and routing purposes, Next.js is used. Finally, the results and analysis show that our proposed model is efficient and viable.

No. of Pages : 16  No. of Claims : 3
Title of the invention: MEDICAL SUPPLY CHAIN TO TRACK COUNTERFEIT DRUGS USING BLOCKCHAIN TECHNOLOGY

Without a proper mechanism to track and authenticate drugs, both stakeholders and consumers experience problems. Stakeholders become incapable of optimizing their production and storage as they are unable to analyze the demands. Likewise, the consumer remains suspicious about the authenticity of the drug. Although, the disputes caused due to this unseen journey of medicine can be solved by adopting a medical supply chain. A medical supply chain promotes the updating of medicine status at each checkpoint. Currently, in the market, medical supply chains are present, but they are centralized. Typically, a centralized medical supply chain is tedious and expensive to maintain, it does not provide adequate features to analyze the market, and above all, it brands merely a certificate to prove the authenticity of the drug. However, by using the blockchain platform, the medical supply chain problems can be solved efficiently. This invention explains the blockchain technology and how it works, at the same time, observes how it can help to maintain medical supply chain records while maintaining ease and trust. Moreover, the blockchain platforms and their dependencies are explained. The implementation and design of the medical supply chain on a blockchain is performed using smart contracts, Web3.js library, and JavaScript. Furthermore, the system is tested on both a local network, using Truffle Suit, and Rinkeby test network.

No. of Pages: 18 No. of Claims: 3
ABSTRACT MULTI-SPINDLE SLIVER-FED SPINNING MACHINE HAVING INDIVIDUAL MOTOR DRIVEN ASSEMBLIES TO SPIN LONG FIBRES

The present invention discloses a spinning machine (100), comprising a plurality of spin box assemblies, wherein a spin box assembly comprises a spin box (4) fixed on a beam (1) and a beam (2); a yarn winding assembly (7) fixed above the spin box (1) having a yarn take-up mechanism; and a thread break photoelectric sensor fixed between the spin box and the yarn winding assembly; a yarn take-up shaft assembly (8) attached to a frame driven by a pulley from a traverse rod, wherein the yarn take-up shaft assembly is attached behind the spin box assembly and is driven by a stepper motor; and a box (6) on a left-hand side of the machine frame carries the traverse rod by an AC gear motor and a HMI control.

No. of Pages : 18 No. of Claims : 8
**Title of the invention:** COPYRIGHT PROTECTION SYSTEM BASED ON USING BLOCKCHAIN TECHNOLOGY

**Abstract:**

With the advancement in the development of blockchain technology, various practical applications and research directions of blockchain technology have been explored. With the unique features of blockchain distributed, decentralized, immutability, transparency and traceability, the world is increasingly adopting the blockchain technology to solve various real-life problems. Blockchain has already played its crucial role in medical, financial, sales and other sectors. In this chapter, we propose a copyright protection system based on blockchain technology, to eliminate copyright infringement, in which all created work of the creators is continuously recorded in a distributed ledger and with the help of smart contracts, ownership transfer and licensing of the created work for use can be carried out effortlessly through association with smart contracts. Moreover, the provenance feature of blockchain ensures tracing of ownership transfer histories which in turn ensures system transparency and traceability. This invention covers in detail about blockchain, existing copyright system and how blockchain can be implemented in this system effectively. A solution model is designed for the system along with the explanation of the procedure to build the system.

No. of Pages : 16 No. of Claims : 3
Title of the invention: A NOVEL DEVICE OF KUTIKUPPLA UMBRELLA PRINCIPLE FOR MAINTAINING PHYSICAL DISTANCE TO PREVENT TRANSMISSION OF COVID 19

Abstract:
ABSTRACT: Title: A Novel Device of Kutikuppla Umbrella Principle for Maintaining Physical Distance to Prevent Transmission of Covid 19 The present disclosure proposes an umbrella principle that allows every person to maintain social distance of around 4 feet from each other using umbrellas. The method to maintain physical distance enables the user to utilize umbrella canopy to block droplets from COVID-19 infected patients. The umbrella canopy is made of a black cloth material and aids to absorb heat and destroy deposits of corona virus and prevents aerial transmission. The method aids to reduce the spread of COVID-19 (corona virus) at public places such as markets, grocery stores, and thereof. The proposed method is a simple, safe, and user friendly method of utilizing umbrella that provides more than 4 feet distance between two people to maintain scientific and rational way of social or physical distancing. The umbrella principle makes social distancing practically possible even by a lay man by utilizing umbrellas at public places.

No. of Pages: 17 No. of Claims: 4
Title of the invention: SECURE EVENT TICKET BOOKING USING BLOCKCHAIN TECHNOLOGY

Abstract:
Over the past years, it has been noticed that there is a rapid growth in the number of events being conducted across the globe and the entry to these events is monitored through a system of tickets. One of the major challenges faced by the event organizers regarding the system of events is the duplication and reselling of these tickets at a cost higher than the original cost. It has become easier for the conmen to carry out this process as most of the tickets are purchased through various online platforms. Therefore, it is important to initiate an authentic system to make sure that there won't be any tampering of the ticket. In this chapter, we put forth a model through which this challenge can be overcome by using a technological solution based on blockchain technology. In our model, an online platform is engineered where the digital tickets are linked to the purchasers with the help of their mobile numbers. All the events are saved in a ledger, on the basis of handling variance and tracking of the system. In the interest of various characteristics like decentralization, transparency, integrity, and immutability, blockchain can be used excellently to eliminate the above challenges and improve the proof of ownership, making the tickets tamper-proof. However, the usage of blockchain technology brings some constraints to our model when it comes to a large population.
Every human being has unique face. These may vary with lot of details from person to person. Whereas, in twins these differences are very less in order to be noticed. Face also changes with age. Hence, in this research, we are working on building a Generative Adversarial Network model that is going to generate the faces of people. And for this generation, the type of GANs being used is Deep Convoluted (DCGANs). This generation is based on the training done using the images available as dataset that is being provided to the model. The data in dataset is passed through a series of modifications called as pre-processing. This model is basically going to be consisting of three important segments called as Generator, Discriminator and loss function optimization with training of these sub models. The results are improvised using improvement analysis using the loss function. The model trained is the generator that is going to generate an image of a face later it is going to be fed to the discriminator. The discriminator is going to verify whether the image is fake or real and based on this result analysis the generator is going to improve in its next iteration using the dataset image. The final output is a generated face image that is so real to be discriminated between fake and realistic face image.
ELECTRICAL SYSTEM AND METHOD TO PROVIDE THERMAL AND MAGNETIC TRIPPING MECHANISM

Exemplary embodiments of the present disclosure is directed towards an electrical system and method to provide thermal and magnetic tripping mechanism, comprising a circuit breaker with a lesser dimension in height (< 75mm) comprising a horizontal moving mechanism where in the circuit breaker is positioned horizontally to protect the three phase transformer from overload and short circuit faults at a low voltage side with the help of thermal and magnetic tripping mechanism. Fig. 2A

No. of Pages : 18 No. of Claims : 4
Title: Process for the Fabrication of Woven Fabric with Medicinal Extract and Face Mask Made Thereof. A process for the fabrication of woven fabric with herbal extract, wherein said treated fabric is capable of being used as one or more of the layers in breathable face masks is disclosed. Said process involves steaming the woven fabric at 100°C for 30 minutes, followed by immersing the steamed fabric into a herbal extract solution (1), while being simultaneously subjected to heat. The treated fabric is then pressed (3) and dried.

FIG.1

No. of Pages : 14 No. of Claims : 8
Health maintenance is a major concern for all human beings. Especially people who are working continuously don’t take enough time to maintain their health including their kids/old aged parents’ health. In this model we propose an approach that helps the individual to keep track of their health along with their family member health. By using this application the diseases which they are yet to subjected with will be known earlier well in advance. Proper medications and care be done beforehand. This can be implemented by using various machine learning algorithms which keeps track of all the body parameters in a frequent cycle. Once the values exceeds at a certain point then it checks out the possibility of harmful things that can arise in our body related to that parameter. Due to this the person can be aware of dreadful and harmful situations.
Provided is a switching mechanism to alternate between transmission from an internal combustion engine to electric motor transmission. The switchover mechanism maybe selected by means of a single pole three throw switch (1). The mechanism is capable of being fitted to any size of hybrid vehicle like a two-wheeler, three-wheeler, four-wheeler and the like. The switch (1) transmits the signals to switch from electric motor to internal combustion engine for propulsion or vice versa to the onboard microcontroller (2). Based upon the signal transmitted by the switch (1), the onboard microcontroller actuates the first actuator (3) or the second actuator (5), wherein the first actuator (3) ignites the spark plug (4) in order to use internal combustion engine for propulsion and second actuator (5) switches on the power supply to use electric motor propulsion. In the automated operation system a battery voltage sensor (6), a battery current sensor (7), a tilt sensor (8) and fuel level sensor (9) are provided. In the auto set point of the switch (1) the sensors (6) and (7) transmit the battery status. The tilt sensor (8) checks gradients in the road and sensor (9) checks the fuel level in the hybrid vehicle. All these sensors dynamically transmit the status respectively to the onboard microcontroller (2). The onboard microcontroller (2) with embedded neural algorithm makes a smart decision to choose between internal combustion engine and electric motor for propulsion. 20 Fig 1, Fig 2, Fig 3

No. of Pages : 19 No. of Claims : 8
(54) Title of the invention : FIREARM MOUNT ROTATING DEVICE

(57) Abstract : ABSTRACT FIREARM MOUNT ROTATING DEVICE (FMRD) The present disclosure relates to a firearm mount rotating device (FMRD) 100 for a firearm or gun 114 and configured to fire the gun 114 from a covered position with minimum exposure to the enemy fire. The firearm mount rotating device 100 includes main body 101 to mount all other components or parts into it. The mounting bracket 301 with adapter plate 302 is pivotally connected to the main body 101 by applying hinge rod 110, wherein the handle of the gun 114 is mounted between mounting bracket 301 and adapter plate 302. The pivot handle 104 is coupled with mounting bracket 301, such that when pivot handle 104 rotates about its axis it will also rotates the mounting bracket 301 and all attached parts. The device 100 includes a trigger sub-assembly 200 to pull the trigger of the gun 114. The device 100 includes pivot lock 105 to hold the mounting bracket 301 in the required rotated position. The device may further include slide stock sub-assembly 400 to assist the operator during firing of the gun 114. The device 100 may also include a camera 133 and the monitor 131 to view the image in corner position. The device 100 may also include scope sub-assembly 500 to see the object around the corner without using battery power.

No. of Pages : 25 No. of Claims : 8
ADD- Predictive Analytics: AUTOMATIC DATASET DISCOVERY WITH PREDICTIVE ANALYTICS. The invention ADD-Predictive Analytics is a systems and techniques for predictive data analytics are described. In a method for selecting a predictive model for a prediction problem, the suitabilities of predictive modeling procedures for the prediction problem may be determined based on characteristics of the prediction problem and/or on attributes of the respective modeling procedures. Data analysts can use analytic techniques and computational infrastructures to build predictive models from electronic data, including operations and evaluation data. Data analysts generally use one of two approaches to build predictive models. With the first approach, an organization dealing with a prediction problem simply uses a packaged predictive modeling solution already developed for the same prediction problem or a similar prediction problem. The artisanal approach can also be very expensive. Developing a predictive model via the artisanal approach often entails a substantial investment in computing resources and in well-paid data analysts. A subset of the predictive modeling procedures may be selected based on the determined suitabilities of the selected modeling procedures for the prediction problem. A resource allocation schedule allocating computational resources for execution of the selected modeling procedures may be generated, based on the determined suitability’s of the selected modeling procedures for the prediction problem. Results of the execution of the selected modeling procedures in accordance with the resource allocation schedule may be obtained. A predictive model for the prediction problem may be selected based on those results.

No. of Pages: 21 No. of Claims: 8
DEVICE AND METHOD FOR PROTECTING ONE OR MORE DOCUMENTS

ABSTRACT

A device and method for protecting one or more documents is disclosed. The device includes a document storage subsystem configured to store the one or more documents, a document security subsystem configured to enable restricted access of the one or more documents to one or more users stored by the document storage subsystem, a document scanning subsystem configured to scan at least one of the one or more documents accessed by the document security subsystem, a content highlighting subsystem configured to highlight a content in the at least one of the one or more documents accessed by the document security subsystem, a display subsystem configured to display the content of the at least one of the one or more documents processed by the document processing subsystem. FIG. 2

No. of Pages: 25  No. of Claims: 8
The basic objective of showing operation is to put the seed and fertilizer in rows at desired depth and seed to seed 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 to crop and for different climatic conditions to achieve optimum yields. The comparison between the traditional sowing method and the new proposed machine which can perform a number of simultaneous operations and has a number of advantages. As day by day the labor availability becomes the great concern for the farmers and labor cost is more, this machine reduces the efforts and total cost of sowing the seeds and fertilizer placement.

No. of Pages: 7  No. of Claims: 6
MANUFACTURING PLASTIC BRICKS FROM REGULAR PLASTIC WASTE

Title of the invention: MANUFACTURING PLASTIC BRICKS FROM REGULAR PLASTIC WASTE

Abstract:
Disposal of large quantity of plastic waste has emerged as an important environmental challenge, and its recycling is facing a big problem due to non-degradable nature. Due to plastic does not decompose biologically; the amount of plastic waste in our surroundings is steadily increasing. The main aim of this work is to reduce the plastic waste that is rising in the present world and to achieve this system is designed incorporating a plastic extruder which plays a prominent part in recycling waste plastic into useful products. At the time of need plastic is found to be very useful, but after its use, it’s simply thrown away, creating all kinds of hazards. Plastic is not bio degradable, so it will continue to be hazardous for more than a century. This work uses waste plastics and converts them into building materials with the help of an extruder, thereby reducing the plastic waste which is a key factor for environmental pollution. These waste plastics are effectively converted into useful building materials like bricks using either single origin plastic waste material or a mixture of different plastic wastes along with waste rubber powder as filler which is mixed at various percentages. This alternatively saves the quanta of sand/clay that has to be taken away from the precious river beds/mines. The plastic waste is naturally available in surplus quantity and hence the cost factor comes down. After conducting several trials with the variety of plastic wastes processed into composite brick, it was observed that the maximum compressive load sustained by the Polypropylene/Rubber composite brick is higher than the regular clay and cement brick.

No. of Pages: 6 No. of Claims: 5
Title of the invention: A COMPOSITION BASED ON METALLIC AND NON METALLIC MINERAL COMPOUNDS FOR TREATMENT OF VIRAL INFECTIONS OF HUMANS INCLUDING COVID 19 AND AND METHOD FOR MAKING IT

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Abstract:
The ancient Tamil system of medicines influenced by the mystic Sidhdhars with the aid of metallic and non metallic inorganic elements called “pashanams™” etc which are essentially acidic and caustic elements and salts associate with them have been providing excellent remedies for many mysterious diseases caused by pathogenic micro organisms causing extensive damages to mankind. Accordingly in this method, various naturally occurring metallic ores and elements are taken up and processed meticulously in conventional processes as prescribed in Sidhdha scrips and the resultant medicated concoction can be a very excellent and workable remedy for orally administering for Covid 19 inflicted patients in punctuated intervals so that this can be a very effective and perfect cure for these patients whose lives are threatened by the dreaded viral disease like Covid 19 which pose a great threat to humankind and also causing enormous loss to the Economy due to prolonged lockdowns etc.

No. of Pages: 14 No. of Claims: 2
TITLE: Spherical Dome Oscillating Wave Energy Conversion Device

The present invention comprises of chamber unit which is a sealed chamber comprising of frame base (6), chamber shell (9), frame (8) and hollow top sealing, a dome unit comprising of dome base (5), dome (4) and dome top member (3), panel unit comprising of panel holder (2) and composite panel (1); and actuating unit, which comprises of a set of hydraulic linear actuators (7) to pressurize the hydraulic fluid. The hollow type top sealing is attached to the top surface of dome (4) and the chamber shell (9) to provide oscillating to the dome unit and scaling between water and chamber. The dome (4) is a spherical dome with high density and hardest material and the bottom side of the dome has two opposite side cavities with the right angle to the mid plane and the top surface of the dome is flat and comprises of a cylindrical cavity through its diameter and a guide shaft located on the center plane of the dome.

No. of Pages : 23 No. of Claims : 8
**Title of the invention:** TONGUE RETRACTOR IN OCCLUSION

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**Abstract:**
The present invention is about a tongue retractor (100) and method of retracting the tongue from interference between the upper and lower teeth during occlusal assessment performed under general anaesthesia before final fixation of the bone plates in jaws, crown placements and during orthognathic surgeries using this tongue retractor (100) [FIG.1]

No. of Pages : 15 No. of Claims : 4
Title of the invention: HYBRID TRICYCLE WITH TO AND FRO ACTION OF STEERING MECHANISM

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Abstract:
TITLE: Automatic Stair Climbing Wheelchair
The present invention comprises of fork (1) which is mounted on the front wheel (2) and is moved by means of the handle bar to steer the vehicle. Wheel hub (3) is the central part of the vehicle wheel connecting the wheels rim by means of spokes and by which the axle is fitted to enable the wheel to spin on the two set of bearings, the front guard (5) guards the vehicle from abstraction and supports for spring action. The front guard basement is connected to the main frame of vehicle to protect the front of the vehicle. The present invention also consists of slider link (7) which converts steering action into rotary action, thereby providing movement of vehicle. The scissor jack bed (10) is supported by frame and the scissor jack operates by turning small crank that is inserted into one end of the scissor jack, thereby turning the crank and screw thus raising the jack.

No. of Pages: 25 No. of Claims: 5
A methodology and an efficient algorithm to encrypt and decrypt the stored data and images on cloud will help secure the data which is the need of the hour. Data security is an important aspect as the users are dependent on data especially storing them over the cloud. The proposed invention aims at implementing a methodology to encrypt the data as well as images that will be stored on personnel computer. The encrypted data will be sent to the receiver and the receiver will be able to view the content sent by the user only after decrypting it. The code for decryption will be the One Time Password (OTP) that will be sent to the mobile number as well as email id of the receiver. The receiver will decrypt the data using the OTP and thus will be able to view the content. This methodology will tremendously decrease the possibility of hacking the data and images over the cloud.

No. of Pages : 27 No. of Claims : 7
A system and method for classifying EEG signal data for detecting emotional states. The method includes a step of capturing a plurality of EEG bands of decomposition frequencies from a sampled EEG signal data. The method includes a step of uploading the EEG signal data in a platform. The method includes a step of adjusting a sampling frequency of the sampled EEG signal data at 256 Hz to obtain an input signal. The method includes a step of decomposing the input signal into decomposition levels having a range of frequencies through a decomposer to obtain wavelet coefficients. The method includes a step of reconstructing the wavelet coefficients through a reconstructor. The method includes a step of extracting the EEG bands. The method includes a step of performing decomposition of the wavelet co-efficient CD5 to at least 3 levels. The most illustrative drawing: FIG. 1.

No. of Pages : 30 No. of Claims : 8
Title of the invention: TWO STAGE PROCESS FOR TREATING PYRETHROID PESTICIDE WASTEWATER USING HALOTOLERANT BACTERIA

Abstract:
6. ABSTRACT OF THE INVENTION: Title: Two stage process for treating pyrethroid pesticide wastewater using halotolerant bacteria. The present invention describes a two-stage process for treating high saline pesticide industry wastewater wherein pyrethroid pesticide industry wastewater is treated anaerobically initially and providing a single pure isolated gram-negative bacterium having halotolerant property for pesticide degradation and subsequently the pesticide degradation is treated aerobically by providing plurality of halotolerant for pyrethroid pesticide degradation. The present invention also describes a dilution process for treating high TDS pesticide industry wastewater, wherein the process comprises of treating high TDS wastewater diluted with low TDS wastewater at a ratio of 1:1, 1:2 and 1:3. The present invention also describes pyrethroid pesticide treatment method is carried out by the addition of organic micronutrient.

No. of Pages: 26 No. of Claims: 10
ELECTRIC POWER IS GENERATED BY USING THE THERMAL ENERGY OF AN EXHAUST GAS GENERATED IN A CREMATORY

My Invention ELECTRIC POWER IS GENERATED BY USING THE THERMAL ENERGY OF AN EXHAUST GAS GENERATED IN A CREMATORY is the electric power is generated by using the thermal energy of an exhaust gas generated in a crematory, and the generated electric power is supplied to each apparatus constituting a cremation system in order to improve energy efficiency. The cremation system has an exhaust gas/warm water heat exchanger for exchanging the heat of an exhaust gas from a recombustion furnace with a medium, a buffer tank for inhibiting a temperature change of the medium, and a flow rate adjustment valve. Further, an evaporator to generate a working medium steam by heating and evaporating a low boiling point working medium with the heat of the medium is used to drive a medium turbine to generate electric power using a power generator. Further, a buffer tank is provided in order to inhibit the temperature change of the medium flowing from the evaporator into the exhaust gas/warm water heat exchanger. Also, a power control device supplies, to each apparatus constituting the cremation system, the generated power and a shortage for the power needed by each apparatus from an external power source. The heat exchanger in the form of a panel is disposed inside the cremation furnace and the cremation furnace itself is made into a boiler, the heat exchanger is exposed to high temperatures and there are problems with reliability. is there. Further, in the power generation system described in this publication, maintenance and repair of the heat exchanger, and replacement with a new one are required at regular intervals.

No. of Pages : 21 No. of Claims : 9
**Title of the invention:** AADHAAR BASED ELECTORAL SYSTEM FOR INDIANS CITIZENS

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4. **DR. VINAY KUMAR YADAV (ASSISTANT PROFESSOR)**
5. **DR. KORLA SWAROOPA (PROFESSOR)**
6. **KSHARA PRAMOD**
7. **DR. AMIT KUMAR TYAGI (ASSISTANT PROFESSOR (SENIOR))**

**Names of Inventor:**
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6. **KSHARA PRAMOD**
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**Abstract:**
Patent Title: AADHAAR BASED ELECTORAL SYSTEM FOR INDIANS CITIZENS

In our invention Aadhaar based Electoral System for Indians Citizens, we provide a novel concept for providing fraud-free (tamper-less), paperless election in India using Aadhaar via updating address. A voter belongs to any state can vote for any state, if he/she satisfies qualification criteria of the election conducting state. For example, suppose a citizen A (of Madhya Pradesh) is living in Haryana (last 10 years), and in Madhya Pradesh Assembly election announced, but now this citizen A can vote only for Haryana (because he became citizen of Haryana now), but not for Madhya Pradesh, but here if government want him/her (or any citizen who is far from his/her constituency) to make partition in voting, then he can vote for Madhya Pradesh (or for any state), but for next five years he will not be eligible for giving vote in any state's assembly election. It will reduce much burdens of money, paper, human/skilled people from governments. In summary, this work provides a simple, reliable, affordable concept for providing paperless electronic voting in India.

No. of Pages: 19
No. of Claims: 7
INTELLIGENT VEHICLE ACCIDENT INTIMATION USING INTERNET OF THINGS (AUTOMATICALLY).

Patent Title: INTELLIGENT VEHICLE ACCIDENT INTIMATION USING INTERNET OF THINGS (AUTOMATICALLY).

ABSTRACT In my invention Intelligent Vehicle Accident Intimation using Internet of Things (Automatically), we are using IoT devices in vehicles and sending information about crash or accident of vehicles to nearby heath officials and police authority to look after of patient/ victim. The collisions or accident may be automatically detected by sensors (embedded in Internet of Things), this receives sensor or accident data, as input will be sent to nearby certified authority. The accidents over the road/ along the highway can be intimated to other authors who are travelling over the same route for avoiding any further collision situation or avoiding any jamming problems.

No. of Pages : 9 No. of Claims : 9
A unique sustainable construction material extracted from Wrightia Tinctoria seed fiber and analyzing its properties thereof is the proposed invention that aims to get a sustainable eco-friendly construction material from the renewable source. The seed pods of Wrightia Tinctoria are collected and seed fiber is obtained after drying the seed pods. Wrightia Tinctoria seed fiber is an effective, economic and environmentally friendly natural fiber which provides the new opportunity for the structural applications. Wrightia Tinctoria fiber provides new dimension in structural applications with their efficacy, economic and eco-friendly nature that finally leads to sustainable path. The fibers obtained from seedpods contain lignocelluloses properties which thus enhances the bond properties of cement hydration products in cement composite. Also various tests are conducted on the fiber obtained to test its various physical, mechanical and chemical properties.

No. of Pages: 45 No. of Claims: 7
(54) Title of the invention : SYSTEM AND METHOD FOR AUTOMATED SALES PIPELINE RISK ANALYSIS AND CORRECTIVE RECOMMENDATIONS

(51) International classification : G06Q0030020000, G06Q0030060000, G06F0009380000, G06Q0030000000, G08G000105200

(31) Priority Document No : NA
(32) Priority Date : NA
(33) Name of priority country : NA
(86) International Application No : NA
Filing Date : NA
(87) International Publication No : NA
(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) K.K. VENKATESH
2) K.K. LOKANATHAN

(57) Abstract :
A system 400 and a method is disclosed for automatic detection of risk natured sales pipeline opportunities 215A out of on-process sales pipeline opportunities 122 accessed by an user in an online based sales or CRM platform 120 and pipeline corrective recommendations 123 in the context of sales engagement and execution behavior. The pipeline risk analyzer 131 analyze the accessed sales pipeline opportunities 214A for the pipeline compliance risk levels of one or more performance standards and detect risky sales pipeline opportunities 215A. The pipeline risk analyzer 131 also generate pipeline corrective actions 215C in specific to the detected risky sales pipeline opportunities 215A based on the non-compliant performance factors 215B. Pipeline compliancer module 141 present pipeline corrective recommendations 123 to the user of an online based sales or CRM platform 120 that recommend risk natured sales pipeline opportunities 215A and specific pipeline corrective actions 215C.

No. of Pages : 31 No. of Claims : 8
(57) Abstract :
ABSTRACT GROWING MEDIUM AND METHOD OF MANUFACTURING The present invention discloses a method for making a growing medium and the growing medium thereof. The growing medium comprises a combination of: a predefined first portion of coconut coir that is devoid of contaminants, and that is fractioned into a specified shape and a specified size ranging from 1 millimeter to 12 millimeter, based on a type of usage of the growing medium; and a predefined second portion of wood fibers obtained from one of a hard wood and a soft wood, wherein the predefined second portion of wood fibers is processed to obtain specified shape and size of wood fiber particles devoid of contaminants.

No. of Pages : 25 No. of Claims : 10
(21) Application No.202041019785 A
(22) Date of filing of Application :11/05/2020
(43) Publication Date : 05/06/2020

(51) International classification:
- C11D0001720000
- A61K0031000000
- D06M0015530000
- C09K0008584000
- A61K0047260000

(31) Priority Document No : NA
(32) Priority Date : NA
(33) Name of priority country : NA
(86) International Application No
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number:NA
Filing Date : NA
(62) Divisional to Application Number :NA
Filing Date : NA

(54) Title of the invention : NOVEL USE OF NON-IONIC SURFACTANT FOR THE TREATMENT OF COVID-19

| (71) Name of Applicant : 1) RITHVIK.K |
|---------------|----------------------------------|
| Address of Applicant : No.13A, RITUS BRINDAVAN, 1ST STREET, JEEVARATHINAM NAGAR, ADYAR, CHENNAI, TAMIL NADU, INDIA-600020. Tamil Nadu India |

| (72) Name of Inventor : 1) RITHVIK.K |

| (57) Abstract : |
| ABSTRACT NOVEL USE OF NON-IONIC SURFACTANT FOR THE TREATMENT OF COVID-19 The present invention relates to a novel use of non-ionic surfactants for the treatment of diseases caused by viruses. The present invention particularly relates to the use of non-ionic surfactants for the treatment of a disease known as COVID 19 caused by coronavirus SARS-CoV-2. The present invention further teaches the use of taste masking agents/excipients. The present invention is further believed to be related to cleansing the coronaviruses from buccal cavities, throat, nose or within the body of a subject by not allowing the said virus to attach to any cells of mucosal layers or epithelial cells thus allowing them to pass out of the body or getting digested inside the body. For this reason the molecules or the composition used herein of the present invention is termed by the applicant as INTERNAL SOAP. |

No. of Pages : 31 No. of Claims : 19
## Title of the invention: SENSIBLE WATER TAP

### Abstract:
A sensible water tap or Sentap, featuring the self-cleaning of the handle of the tap achieved by positioning the handle within the flow of the water stream. The Sen-Tap consists of a fixed inlet connecting pipe, externally attached structure and a rotary handle. This external structure lies in the connection relation of inlet water pipe and the outlet water pipe, a rotary handle flushed by the outgoing water is fixed to the water outlet of water pipe. By using Sensible tap one can prevent the contamination and disease spread through soiled handle which happens while using normal taps due to non-cleaning of the handle after a hand wash. The self-cleaning handle water tap is quite applicable in all human dwellings.

No. of Pages: 10  No. of Claims: 7
(54) Title of the invention: PREDICTION OF COVID™19 THROUGH THE DIAGNOSIS OF TONGUE AND EYE IMAGES USING AN IOT BASED ANDROID APPLICATION

<table>
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<tr>
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<tr>
<td>A61B0003000000, A61B0003140000, A61B0003120000, G06T0007000000, A61B0003032000</td>
<td>1) Dr. T. Jemima Jebaseeli</td>
</tr>
<tr>
<td>- Address of Applicant: Assistant Professor Department of Computer Science and Engineering Karunya Institute of Technology and Sciences Coimbatore Tamil Nadu India</td>
<td></td>
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<tr>
<th>Priority Document No</th>
<th>Priority Date</th>
<th>Name of priority country</th>
<th>International Application No</th>
<th>International Publication No</th>
<th>Patent of Addition to Application Number</th>
<th>Divisional to Application Number</th>
<th>Filing Date</th>
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(57) Abstract:
Tongue and eye diagnosis system is a unique method of finding out the pathological conditions that occur among the patients to discriminate COVID™19. Extracting the reliable features of the tongue assists the physicians in the diagnosis of patients with Corona. There are three major steps in the major process of the tongue and eye diagnoses such as capture the tongue and retinal images, segmentation of the region of interest, extract the features, analysis, and grading of the disease. Diagnosis can be delayed due to various problems in accessing the COVID™19 kits and other examinations. The proposed system enables every user to test their health conditions that they are infected with COVID™19 and know the status as positive or negative. The sign and symptoms of the tongue and eye diagnosis through the android application help the person to get early treatment. Hence, a lot of people™s life will be saved and the death rate can be minimized.

No. of Pages: 7 No. of Claims: 8
A Clean Hands Handwash device includes water chamber, wash chamber and collection chamber. This is a portable motorized handwash device wherein the water chamber and collection chamber are concealed. This can be used at hospitals, offices and at homes, especially for the elderly, children and the sick. The handwash device needs an assistant to hold the device for a non-touch hand wash. The person who uses the device will not touch any object to wash hands. Just inserting the hands in to the device will suffice.

No. of Pages : 11  No. of Claims : 10
**Title of the invention:** SYSTEM AND DEVICE FOR INTRAORAL SCREENING OF MULTIPLE ORAL ABNORMALITIES

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<tr>
<td>A61B0005000000, G06T0007000000, G16H0050200000, G06N0020000000, C07D0417140000</td>
<td>1) Mokkapati Vyagreswara Sarma</td>
</tr>
<tr>
<td>Address of Applicant: S/o M Rama Krishna Murthy, # 8-3-1100/2A Ramkamal Doyen, Adjacent to Drishti Eye hospital, Sri Nagar Colony, Hyderabad, Telangana 500073 Telangana India</td>
<td></td>
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<tr>
<td>2) Mokkapati Surekha</td>
<td></td>
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<tr>
<td>3) Mr. Krishna Sai Inkoolu</td>
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**Abstract:**

Title: System and Device for Intraoral Screening of Multiple Oral Abnormalities

The present disclosure proposes a system and device for intraoral screening of multiple oral abnormalities that aids for automatic emission of specific wavelength of light based on selected disease. The screening system includes a remote processor that processes the captured images of the light emitted region of a patient. The screening system processes the captured images in a remote server using artificial intelligence and machine learning algorithms. The screening system provides access to the raw image and processed image to the health care professional for remote diagnosis. The screening device detects different oral diseases such as oral caries, cavities, gingivitis, periodontitis, fluorosis, and oral cancer in primary stages to avoid severity of diseases that usually might have no symptoms.

No. of Pages: 21 No. of Claims: 10
The Patent Office Journal No. 23/2020 Dated 05/06/2020

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application: 12/05/2020

(21) Application No. 202041019945 A

(54) Title of the invention: A NOVEL TRANSPARENT EXPRESSION FRIENDLY FACEMASK WITH ANTIMICROBIAL PROPERTIES

(43) Publication Date: 05/06/2020

(31) Priority Document No: NA

(32) Priority Date: NA

(33) Name of priority country: NA

(51) International classification:
   A41D0013110000,
   A62B0023020000,
   G06K0009000000,
   G09B0021000000,
   G09F0027000000

(86) International Application No: NA

(87) International Publication No: NA

(57) Abstract:
Wearing a face mask has become a necessity in public life in the recent times, especially in crowded places in times of epidemics and pandemics. But this will effectively mask the expressions in human face making it more mandatory to literally explain verbally those things which are understood by humans in a nonverbal way due to high levels of nonverbal communication inherent to human languages. The difficulty is more for those who are deaf and rely on lip reading and those who take speech therapy since they rely on mimicking the lip movements of therapists. This makes it difficult for such interventions also for fear of spread of infections. Our mask makes this task easy by being transparent like thin silicon and by its unique design it will not distort the view of lower part of face up to chin which is very essential for understanding the speech. Further it has an antimicrobial valve which prevents the passage of microbes including dust mites, bacteria and fungi by a composite mixture of charged particles and nano biomolecules on a breathable fabric. The design also prevents leak of air as it covers all the front part of face adjusting to the different contours of face. Thus this simple design is very useful for a social being like human beings to lead effective community life even when face is masked and air they breathe is protected.

No. of Pages: 10 No. of Claims: 8
**Title of the invention:** IS- TRAFFIC MONITORING: INTELLIGENT TRAFFIC MONITORING SYSTEM USING AI TECHNIQUES

**Abstract:**

IS- Traffic Monitoring: INTELLIGENT TRAFFIC MONITORING SYSTEM USING AI TECHNIQUES My Invention IS- Traffic Monitoring is a AI Programming considered as a primary bridge connecting between physical and human world. AI Technique becomes one of the most important and interesting field of researches through which researchers hope to control all everyday usages via the programming. The AI programming include objects different from technological environment, or even living organisms as well as devices that are already deeply embedded in the technological environments such as 4-G, 5-G phones or advanced vehicle. By integrating computational abilities in all kinds of things and living organisms, it will be possible providing big leap in many sectors: Education, Training, agriculture, research Health, military, home, entertainment and so on. Therefore, the study of AI programming technology is very important and interesting. However, AI technology faces a lot of challenges which hinder its development. Nowadays, Artificial Intelligence (AI) technology is considered as a solution for any problems in different field.
The present invention is about the automated production of ventilator tubes using 3D printer machine. The quantity of production is decided based on the prediction of demand by machine learning algorithm. The developed linear regression algorithm with stochastic gradient descent can be used to predict the coronavirus patients in the country. The automated production is monitored and controlled through cloud based cyber physical system. The designed manufacturing system is capable of procurement of materials online automatically based on the predicted demand, Automatic Selection and utilization of 3D printer based on demand, Controlling of production process in 3D printer using cyber physical system , Monitoring of the condition of nozzle using sensonode vibration sensors and Automated packing of the produced component.
**Title of the invention:** SYSTEM AND METHOD FOR PROVIDING MULTI-LEVEL DISTRIBUTION AUTHENTICATION AND MULTI PART PRODUCT ANOMALY PROTECTION

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<td>H04L0029060000, G06Q0030000000, G06K0019060000, G06F0003048400, G06N0020000000</td>
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**Priority Document No:** NA  
**Priority Date:** NA  
**Name of priority country:** NA

**International Application No:** NA  
**Filing Date:** NA

**International Publication No:** NA  
**Filing Date:** NA

**Patent of Addition to Application Number:** NA  
**Filing Date:** NA  
**Divisional to Application Number:** NA  
**Filing Date:** NA

**Abstract:**
SYSTEM AND METHOD FOR PROVIDING MULTI-LEVEL DISTRIBUTION AUTHENTICATION AND MULTI PART PRODUCT ANOMALY PROTECTION - Exemplary embodiments of the present disclosure directed towards a system for verifying the authenticity of objects, comprising: a machine readable code generating module configured to generate machine readable codes and displays on first computing device, wherein first computing device is operated by first user, machine readable codes are printed on labels and labels are affixed inside and outside of objects; and object authenticity verification module configured to allow second users to scan machine readable codes affixed outside of objects using second computing device, object authenticity verification module configured to allow second users to scan machine readable codes affixed outside of the objects before the purchase and also configured to allow third users to scan machine readable codes affixed inside of objects after the purchase, second and third computing devices configured to display object details and historical data of objects by retrieving from database over network after scanning machine readable codes. Fig. 1

No. of Pages: 37  
No. of Claims: 7
The present invention discloses an automatic Temperature monitoring device and a method to evaluate the temperature difference of human passerby in a specific place. Said Temperature monitoring device (1), said device comprising a main stand (11) and a main frame (21), a driving arrangement (2) mounted on said main frame (21), a Thermal scanning apparatus (3) mounted on said driving arrangement (2), a human identification device (4) mounted in the main frame (21) characterized in that, said thermal scanning apparatus (3) consists a radar sensor (31), an ultrasonic sensor (32), a camera (33), a thermometer (34) and a control unit (35).
The present invention relates to the field of monitoring medical data from remote places by transferring the data using encryption methods. The secured medical data transmission comprises of sensing unit (11), wherein said sensing unit (11) comprises a pulse sensor (12), electrocardiogram or ECG sensor (13), electromyogram or EMG sensor (14), temperature sensor (15), global positioning module (16), microcontroller (17) with wireless communication means (18) and encryption module (19) whereas said data is encrypted using advanced encryption standards. Furthermore, the present invention also provides an alert to user's mobile device in case of emergency.

No. of Pages : 16 No. of Claims : 4
Systems and methods are provided for obtaining consensus on an event between nodes of a network. The event related to a transaction on a distributed ledger is detected, where the transaction is initiated by a first node of said network and the first node has a unique identifier associated therewith. The transaction is mapped to said unique identifier to indicate source of said transaction. At least one validation node is identified which is capable of governing and/or validating said transaction. Then a pluggable consensus is obtained on transaction, using said at least one validation node. The pluggable consensus is obtained using a consensus mechanism selected from a plurality of pre-stored consensus mechanisms, where the selection is performed based on security and throughput attributes extracted from said transaction.

No. of Pages : 38 No. of Claims : 14
Title of the invention : A SYSTEM AND METHOD FOR PROVIDING OF ONLINE FIRST AID GUIDANCE DURING OCULAR EMERGENCY SITUATIONS

Abstract :
An interactive system and method based on Artificial Intelligence (AI) techniques for providing immediate and reliable relief for people suffering from ocular / ophthalmological ailments and who live in remote and rural regions and cannot have access in an urgent basis to ophthalmologists is given. Accordingly, the interactive mode working on internet based platforms, allows the user to have an interrogative session and gathers the details related to the ailment from the person / individual and narrows down the problem concerned and provides exact first aid solutions to the user. Thus, the method can save precious vision for people who would be otherwise in great jeopardy of losing vision due to non availability of medical assistance for their eye related issues. The system and method if highly foolproof and aid people who are marginalized and cannot seek the assistance of medical specialists for their eye related ailments during emergency situations.

No. of Pages : 10 No. of Claims : 2
The present invention provides a composition for use in agriculture. The composition comprises zinc oxide, oil-based solvent, concentrated hydrochloric acid; and anti-photodegradation agent, wherein said composition is used as a foliar spray fertilizer. The present invention further provides a method for preparation of the aforementioned composition. The method comprises dissolving zinc oxide in the oil-based solvent, concentrated hydrochloric acid and the anti-photodegradation agent with continuous stirring. Moreover, the method further comprises adding a wetting agent, an emulsifier, a defoamer, a surfactant, a reaction stopper and a stabilizer to obtain a double dissolution zinc oxide suspension concentrate. FIG. 1 for the Abstract.

No. of Pages : 20  No. of Claims : 10
Abstract:
A blockchain-based shopping cart includes a basket, an RFID and barcode scanner, a weighing machine, a display screen, a processor, a memory, and a microcontroller. The RFID and barcode scanner detects products being placed into the basket. The RFID and barcode scanner attaches to the products to receive RFID tag data and barcode data. The weighing machine measures the weights of the products placed in the basket and compares the measured weight with the weight of each of the products from an inventory database. The display screen displays a billing data and transmits the bill to a computing device to obtain a computerized bill. The processor is provided with a memory configured to store a blockchain. The memory generates an identification number corresponding to the customer and compares the billing data of secondary baskets to facilitate the customer on a buying decision. The most illustrative drawing: FIG. 2.
ID- Validation and Tracking System: DIGITAL IDENTITY VALIDATION AND TRACKING SYSTEM USING MACHINE LEARNING, DEEP LEARNING PROGRAMMING

My invention ID- Validation and Tracking System* is allow for digital identity validation and tracking system. The digital identity is registered to a registrant. During the registration process, more than one records are collected from the Registrant and stored in a local and global Database. The registered records may include information regarding a digital identity. At the time of registration include information name, date of birth, birth place, religion, person color, special symbol, biometric data (thumb, voice), address, phone number, email address, other required information. The information is then verified, possibly by contacting a Registrant, Govt. administrative contact, Govt. technical support contact, or another contact to confirm at least some information in the records. If the information is verified, the Digital Identity provider may provide the Registrant with a Validation Marker indicating that the digital identity has been validated. The digital identity is received from a Registrant. The Digital Identity Database is then searched to determine the availability of the requested digital identity. If available, the requested digital identity is then registered to the Registrant and the Digital Identity Database is updated to indicate the registration. At the time of tracking the acquired biometric identification or name or mobile no, information is sent to a computer processor, which searches files in a local and global Govt. data base for matching biometric data. If no match is found, the processor opens a new file in the library. If a match is found, said processor stores in the file that a repeat identification has occurred, and display the user ID with photo.

No. of Pages : 27  No. of Claims : 9
(54) Title of the invention : IOT AND BLOCKCHAIN-ENABLED SMART E-VEHICLE CHARGING SYSTEM

(57) Abstract :
As many nations are moving towards pollution-free traffic, electric vehicles are increasing greater prominence over the globe. Right now, the Internet of Things is applied worldview in the block-chain way to deal with handling the process of the electric vehicle of charging in shared spaces in the decentralized era, for example, cabins. The systems with the Internet of Things will rationalize the recital of electric vehicles charging and seeing the effects. A versatile application handles the customer system of authentication to start the process of charging for electric transportation, where numerous detectors are used to estimate vitality consumption and are dependent on the microcontroller, to build up information communication with the portable application. This technique is useful for transportation systems and V-DT systems. With the Internet of Things, we can undoubtedly manage the entire V-DT Technology, which will set aside moments and money. This sort of work is to occur made a smart app to bond with the matrix and for realizing the various charges of the framework. The duty charges will have all charges for the transmission of power to the form and the levy rate for the withdrawal of power from the network. State of Charge is estimated utilizing the Advanced RISC Machine Mbed controller, and it will transmit to the cloud. The application will likewise show the battery status of the client when he goes to the matrix. This anticipated system will progress the city arranging and makes everyday life simple. A block-chain handles money related transitions, and this methodology can be imitated to other electric vehicle charging situations, for example, an open system of charging in a city, where the cell phone gives an authentication component.

No. of Pages : 16 No. of Claims : 4
The intellect quotient of an individual is calculated by the psychometric test as indispensable for evaluating the psychological application in different fields. The commonly used test is the universally accepted Wechsler scale which recognizes the retardation-degree diagnostic parameters which are not applicable as it does not require any psychodiagnostic tool that is more appropriate for the particular test condition of the patient. However, in order to ensure a homogeneous diagnosis, it is necessary to have a common metric aimed at building models that can be accurately estimated with reliable intelligent quotient values, starting with various psychodiagnostic tools. The psychometric test consists of four types, namely the international performance scale of the conductor, the colored progressive matrix test, mental development scale and psycho educational profile combined with the Wechsler scale for administering the group of subjects that are mentally retarded found with different types of pathologies and controlling persons. Evaluation of the Wechsler intelligence quotient is calculated beginning from scores collected from other evaluation choices. The knowledge quotient is calculated for the description of the retardation stage evaluated by univariate and multivariate processes.

No. of Pages : 12 No. of Claims : 5
Title of the invention: METHOD FOR HEART-DISEASES CLASSIFICATION BASED ON ECG IMAGE ANALYSIS THROUGH DEEP LEARNING MODEL

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<td>1) Dr. K V Ranga Rao</td>
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<td>(31) Priority Document No</td>
<td>2) Dr. K Srinivas</td>
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<td>(32) Priority Date</td>
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<td>(33) Name of priority country</td>
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<td>(86) International Application No</td>
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<td>Filing Date</td>
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<td>(62) Divisional to Application Number</td>
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Abstract:
The present invention is related to a computer implemented method for heart-diseases classification based on electrocardiograph (ECG) image analysis through a deep learning model. The objective of the present invention is to solve the problems in the prior art related to inadequacies in technologies for identification and classification of heart diseases based on the ECG image processing.

No. of Pages: 23 No. of Claims: 6
The strontium reinforced nano hydroxyapatite dentifrice and preparation method is disclosed. In one embodiment of the invention the dentifrice composition comprises 50% of 25 mole % strontium doped nano hydroxyapatite; 30% of sorbitol and glycerine; 2% of sodium lauryl sulfate; 3% of sodium alginate; and 15% of water and flavouring agent. The strontium reinforced nano hydroxyapatite dentifrice acts as a remineralising agent to promote the deposition of mineral aggregates in the openings of exposed dentinal tubules, thereby reducing dentine hypersensitivity.
The objective is to design a semi-autonomous drone capable of self-sustained flight via wireless communications while utilizing a microcontroller. The drone was designed to be small enough so that costs would be minimized, hence small motors and propellers are used. While a PIC microcontroller, accelerometer, and gyroscope are communicating between each other to maintain control. The scheduler program arranges the following tasks: controller input, sensor data received from the accelerometer, gyroscope and magnetometer. The wireless transceivers use SPI to send control signals to the microcontroller on the drone from the handheld controller unit. The accelerometer/gyroscope and magnetometer both use I2C to send the amount of acceleration, stabilization, and the direction vector. To achieve flight, two of the motors must apply downward force and the other two motors have to apply an upward force. To turn, one pair (left or right side) of motors slows down to turn the copter. To ascend, all motors will increase in speed, and will all decrease in order to descend. To move forward, the front two motors will decrease while the back two motors will increase and vice versa in order to move in a backwards direction.
**Title of the invention:** COMPREHENSIVE SELF ORAL-HEALTH ASSESSMENT KIT (CSOAK)

**Name of Applicant:**
1. SRI BALAJI VIDYAPEETH
   - Address: SRI BALAJI VIDYAPEETH PILLAIYARKUPPAM Pondicherry India
2. INDIRA GANDHI INSTITUTE OF DENTAL SCIENCES

**Name of Inventor:**
1. DR. G. BALAVAISHNAVI
2. DR. G. PARAMESWARI
3. DR. SHIVASHANKAR KENGADARAN
4. DR. SENTHIL M

**Abstract:**
TITLE: COMPREHENSIVE SELF ORAL-HEALTH ASSESSMENT KIT (CSOAK) APPLICANT: SRI BALAJI VIDYAPEETH & INDIRA GANDHI INSTITUTE OF DENTAL SCIENCES

The present invention discloses a Comprehensive Self Oral-health Assessment Kit adapted to be mountable on a dental chair and comprises of a support component mountable to the dental chair and a characterised Oral-health Assessment Kit pivotally mounted to the support component. The characterised Oral-health Assessment Kit comprises of a hallow box, a mirror, an intra oral camera, X ray viewer, a monitor, power supply and an internet. The hallow box is configured to be opened on front side to view a mirror to educate patient during treatment procedures. The intraoral camera is disposed on left or right side of said hallow box adapted to be place in oral cavity to view/record videos and photos and is configured to be integrated with power supply and the monitor. The X ray viewer is disposed on backside of the hallow box and is configured to be integrated with the power supply and adapted to visualise developed x-ray films in operating field upon placing an X ray and illuminating. The monitor is disposed on front side of the hallow box and is configured to be integrated with the power supply and the internet, and adapted to view and record live photos, videos and RVG, for patient education, maintaining records verification, study purpose and for taking lectures.

No. of Pages: 14 No. of Claims: 6
APPLICANT: KARUNYA INSTITUTE OF TECHNOLOGY AND SCIENCES
TITLE: ANODIZED MICRO FINS FOR ENHANCED HEAT TRANSFER IN HEAT PIPES WITH AMMONIA AS WORKING FLUID
The present invention discloses a hyper-technical micro finned heat pipe, for enhanced heat transfer and capable of working in anti-gravity, which could be suitable for satellite cooling applications. The hyper-technical micro finned heat pipe of the present invention comprises of a micro finned heat pipe characterised in a. anodised inner surface of the micro fin thereby making a thin porous layer over micro fins surface and increased capillary pressure by decreasing minimum effective capillary radius and surface wettability for effective circulation working fluid from condenser to evaporator; b. circulating characterised working fluid ammonia between evaporation section and condensation section for enhanced performance of heat transfer in the heat pipe by reduction in thermal resistance and c. reduced surface contact angle of the anodized micro fin.
The present invention discloses the novel implementation of RLNS on a fixed-width multiplier, which is considered as the mix of both Residue Number System (RNS) and Logarithmic Number System (LNS). The major contribution of the present invention is to solve both fixed and floating-point computations carried out in the fixed-width multiplier. In Digital Signal Processing, the RLNS is utilized to design a high-performance system by improving the processing speed and reducing power consumption. This present invention is designed for single-precision calculations, which means both operands and operators have a 32-bit number. Here, two input numbers are considered as 32-bit single-precision floating-point numbers, which represent the IEEE single-precision and convert it into equivalent binary-weighted numbers and Modulo 2 additions are done based on a Residue number system. [To be published with Figure.1]
**Title of the invention**: COMPUTER IMPLEMENTED SYSTEM AND METHOD TO CREATE WISDOM NETWORK

- **International classification**: H04L0029060000, G06Q0050000000, G06N0003080000, G06Q0030020000, G06Q0010100000

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- **Name of Inventor**: 1) SOHAIL MAHAMMAD

**Abstract**:
Exemplary embodiments of the present disclosure directed towards a computer-implemented system to create wisdom network, comprising wisdom generating module configured to enable at least one of first user and second user to post metadata on at least one of first computing device and second computing device via network, wherein the wisdom generating module configured to identify the intent of the metadata by using artificial intelligence technique and a blockchain technology and the wisdom generating module configured to enable the at least one of the first user and the second user to generate a response using the at least one of the first and the second computing device, the wisdom generating module configured to analyze the intent of the metadata and detect one or more likeminded profiles and send the one or more likeminded profiles as matches to at least one of the first computing device and the second computing device. FIG. 1

No. of Pages: 38 No. of Claims: 7
**Title of the invention:** UNIFIED POWER CONVERTER

**Name of Applicant:**
1. Muthukumar P
2. S Umamaheswari

**Address of Applicant:** Prasad V. Potluri Siddhartha Institute of Technology Department of Electrical and Electronics Engineering, Vijayawada. Andhra Pradesh India

**Name of Inventor:**
1. Muthukumar P
2. S Umamaheswari

**Abstract:**
The unified power converter (100) comprises a power source module (102) incorporated with an uncontrolled rectifier, a power conversion module (104) that includes four serially connected capacitors (C1-C4) to provide variable dc voltage, eight IGBT switches (S1, S3, S5, S2™, S4, S6, S2, S5™) connected with antiparallel diode and four diodes (D1-D4) and a load module (106), as shown in FIG. 2. The components of the unified power converter (100) are utilized in different combination in plurality of operating mode. The operating mode includes, but not limited to, single phase inverter mode, three phase inverter mode, multi-level inverter mode, ac-ac voltage controller mode, cyclo converter mode, single phase rectifier mode, buck converter mode, boost converter mode.

No. of Pages: 24
No. of Claims: 15
Title of the invention: CONTACT MINIMIZING STERILE HOOK KIT

Abstract:
The present invention is a sterile hook kit (100) comprising of sterile case (110) and a curved hook (150) for operating on common surfaces in public spaces such as door handles, flush handles and health faucets in toilets, switches, ATM and elevator buttons and cupboard drawers. The sterile case (110) comprises of an outer box (120) to hold the product, a sponge filling (130) which hold the disinfectant liquid and a slot in the sponge filling (130) to hold the curved hook snugly in place when not in use. The curved hook (150) of the sterile hook kit comprises of a holding portion (210) to grip the product in the user's hands. The sterile hook (100) is latched onto the handle of the door handle or cupboard drawer and pulls it in order to open them. The sterile hook knob portion (230) can be used to push the ATM and elevator buttons. The sterile hook is thereafter replaced in the slot (140) inside the sterile case (110) and closed after use. The disinfectant filled in the sponge filling sterilizes the hook after the usage.
The present invention discloses an Ampoule Bottle Penetrator to penetrate an ampoule bottle in order to create a desirable orifice on head of the ampoule bottle for drawings medicines stored in the ampoule bottle without any risk of contaminating micro glass particle in to the medicines and cause of any injury to the person who is attempting to open the ampoule bottle. The Ampoule Bottle Penetrator of the present invention comprises of a. a main body structure comprising of a thick walled tubular glass [2] having closed end integrated with a electric current source and opened end, ends with a nozzle (9), and housed with PCB circuit - control boards (1) coupled with the electric current source, near the closed end, followed by a Temperature regulator (4) for producing different temperature on tip of a tungsten needle [6] in which an indicator is fixed to check connectivity between the electric current source and control board b. a tungsten needle port [5] is fixed in center portion of the tubular glass via metal glass joint technique by using metal screw; c. a tungsten needle (6) is adapted to removably fixed in the tungsten needle port [5] via tungsten holder (7) to reduce and prevent movement and shake of the tungsten needle (6) when apparatus is in work progress in which the needle is fixed in such a way that Tungsten pointer tip (10) is in center of the nozzle (9) in extended way a lit bit to ensure that the Tungsten pointer tip (10) can penetrate the ampoule bottle head (11) and d. a Rubber holder or ring (8) fixed around the tubular glass (2) to prevent heat passage during holding when work station is on.

No. of Pages : 15 No. of Claims : 4
Title of the invention: WIRELESS BROADCASTING SYSTEM USING SELECTIVE SWITCHING

Abstract:

Exemplary embodiments of the present disclosure are directed towards a wireless broadcasting system using selective switching technique with a principal information sender and a principal recipient where a voice transmitter and switching transmitter transfer the voice input from an information sender to a signal antenna and a switching antenna and rooms comprising of a receiver with switching mechanism and an output mechanism is further connected to a switching antenna and receiving antenna; a transmitter’s side comprising of icons to generate a code upon pressing the icon and the USB voltage level of the generated code is converted to a TTL voltage level and converting the code to a Radiofrequency (RF) signal F1 which is transmitted through a RF switching antenna, and an amplified audio signal is converted to RF signal and transmitted through an RF transmitter with frequency F2 and this information is received by a particular receiver which is switched ON using the received code which is transmitted through an RF switching antenna; and a microcontroller board with a specific receiver code with a receiver switches on and switches off upon matching and for CODE 1 the microcontroller activates a relay module and switches on the power supply and the receiver provides a voice output. FIG 1

No. of Pages: 17 No. of Claims: 10
Exemplary embodiments of the present disclosure directed towards a polypectomy device for excision of polyps, comprising: an endoscopic forceps comprising a first forceps jaw and a second forceps jaw, the forceps jaws are rotatable connected to a catheter body, the catheter body moves towards a polyp peduncle and opens the forceps jaws to capture either side of the polyp peduncle; and a snare cable is routed through the forceps jaws to form a loop for grasping polyp peduncle, the snare cable operatively connected to the catheter body, forceps jaws configured to hold the polyp peduncle after pulling snare cable and applying electrosurgical current, the forceps jaws configured to facilitate stabilizing the polyp pedicle and cut the polyp pedicle by snare cable, forceps jaws configured to collect resected polyp, the forceps jaws comprising forceps tips configured to hold a bleeding spot to control post polypectomy bleed and apply electro cauterization.

No. of Pages: 34 No. of Claims: 15
A DEVICE FOR DETERMINING THE QUALITY OF MILK

A device for determining the quality of milk comprises an elongated upper body (102) and a lower body (109) tube of length fused to each other to form a hollow chamber inside the elongated tube that helps the device to float when immersed in the milk. The upper body part consists of the display unit (101) exactly fixed on the top of the elongated tube capable of displaying the data. The elongated tube (102) has the slots on each of its sides meant for holding the detecting means. The detecting means are the paper strips for corresponding tests to be done and the sensor leads for which the corresponding slots are provided.

No. of Pages: 19  No. of Claims: 10
Title of the invention: METHODS AND APPARATUS RELATED TO AN EFFICIENT EXCHANGE OF RESOURCES.

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<td>Methods and apparatus related to an efficient exchange of resources. Abstract: A novel apparatus for protection and exchange of resource between human and space is proposed. This apparatus would provide novel methods and techniques to design and manufacture state of the art protection facemask. Facemask consists of one or several layers of module, which would prevent infection, block the entry of unwanted living being or virus, stop the entry of droplets, aerosols, from space or wearer or from any living thing. Few modules in the apparatus have built in sensor for automatically control valve, miniature heater coil, give a beep alarm with manual override feature. Primary application of this invention may use as a novel facemask, the design of novel helmets, usage inside the houses, hotels, or offices, public gathering locations, malls, metros, parallel connection of face mask wearers in vehicles of any mode of transport or several people in the gated community or in an enterprise type of scenarios.</td>
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No. of Pages: 22 No. of Claims: 10
Disclosed is a breast cancer prediction system (102) for early detection includes processors (202) and memory (206). The memory (206) stores program instructions executable by the processors (202) to predict breast cancer. The memory (206) includes a pre-processing module (210), a feature selection module (212), an association rule mining module (214), and a classification module (216). The pre-processing module (210) processes a dataset stored in a database by removing redundant data and replacing a plurality of missing attributes from the dataset. The feature selection module (212) selects features from the dataset. The association rule mining module (214) extracts closed frequent itemsets (CFI) from the selected features. The classification module (216) receives the CFI to classify patients into a breast cancer affected patient, and a normal patient. The classification module (216) utilizes a Target Weighted Deep Learning Neural Network (TWDLNN) algorithm to classify the patients. The most illustrative drawing: FIG. 3.
Title of the invention: PROCESS OF DEVELOPING COATINGS FOR HIGH TEMPERATURE OPERATIONAL EQUIPMENT

Abstract:
This invention discloses a method of development of high temperature functional material system. It boosts the effective working temperature of heat generating systems such as furnaces, ovens and other equipment which operates at elevated temperatures. This eliminates the replacement or dependency on new heating system as it can easily upgrade the existing system. An engineered material is coated on the mullites which greatly improves the maximum operational temperature of the specific environmental (inert gas or vacuum) operated equipment.

No. of Pages: 14  No. of Claims: 10
A probiotic herbal composition comprising cow dung, cow urine, cow milk, cow ghee, cow milk with tender coconut juice, fruit juices, probiotic micro-organism, leaf extracts of Ocimum sanctum, Aegle marmelos L. The probiotic herbal composition includes only natural ingredients and improves the immunity of the human body. The subject matter of the present invention also includes a method of preparing said probiotic herbal composition.

No. of Pages : 20 No. of Claims : 14
DEVICE FOR MONITORING CONSUMPTION OF ELECTRICITY

Exemplary embodiments of the present disclosure are directed towards a device for monitoring the actual consumption of electricity with a current sensor activated by an inflow of a current, which is connected to a voltage sensor and a relay is connected to the current sensor and an input socket which is activated by a current signal in one circuit to open and close another circuit; and a voltage and the current sensed values will be sent to a microcontroller.

FIG 1

No. of Pages : 12 No. of Claims : 6
The present invention deals with the formation of Natural Organic Nano-Fertilizers with the chelated nano-nutrients to balance plant nutrition; improve water holding capacity, soil health improvement, sustainable productivity and quality improvement. The present invention involves production of eco-friendly and low cost process for the synthesis of nanoparticles of nano-nutrients by utilizing microorganisms comprising of two lab adapted strains of Aspergillus species, one lab adapted strain of Lactobacillus sp. and lactate, gluconate and proteinate salts as a source of nutrient leads to formation of metal nanoparticles (Zn, Mg, Fe and P) with the size of <20nms. The present invention increases 12-20% of crop yield, stress tolerance of the crops, nutrient mobilization increases and 3 fold increase in nutrient use efficiency.

No. of Pages : 28 No. of Claims : 8
The present invention discloses an Attention Deficit Hypersensitivity Disorder (ADHD) Detection System for easy identification of portion of frontal lobe of brain where ADHD is present from ADHD EEG signals. The ADHD Detection System comprises of a processing unit and display unit. The processing unit, employs a Raspberry Pi for acquiring data, generating brain maps and classifying as ADHD and non-ADHD maps, and characterised in i. obtaining EEG signals of 16 channels and 600 seconds duration followed by dividing into 10 seconds data and converting into EDF (European Data Format) file; ii. the EDF file is subjected to Principal Component Analysis and Finite Impulse Response (FIR) filter for removal of noises, artifacts, whitening of data and reduction of dimensionality of data to form pre-processed EEG signals; iii. fitting the pre-processed EEG signals into Independent Component Analysis for generation of brain maps in which the brain maps are in image form of .png format and converted into grey-scale images; iv. applying Rotational Invariant Uniform Local Binary Pattern (LBP) feature extraction technique on the grey-scale images for extraction of features and v. subjecting the Extracted features to a Support Vector Machine (SVM) classifier and classifying as ADHD and non-ADHD maps; The display unit interfaced with the Raspberry Pi, displays the classified maps both ADHD and non-ADHD in which the colour maps represents brain show areas where ADHD related variations are observed thereby making a thirty page EEG data into single page color display for easy and rapid diagnosis.

No. of Pages : 17 No. of Claims : 7
TITLE: OINTMENT CONTAINING ESSENTIAL OIL EXTRACTED FROM THULASI (OCIMUM SANCTUM L.) LEAVES TO TREAT HUMAN SKIN ULCERS

APPLICANT: SRI BALAJI VIDYAPEETH & MAHATMA GANDHI MEDICAL COLLEGE & RESEARCH INSTITUTE

ABSTRACT


No. of Pages: 12
No. of Claims: 7
Movement of the physically challenged person is difficult and many times one operator is required to move wheel chair and person from one place to another. There are many models are developed smart wheel chairs either sophisticated and require some technical knowledge to operate independently by the persons. A simple user friendly and easy to operate Small wheel development is a research area. So far developed models are not having fork lift arrangement. This creates an interest to develop a Smart Wheel Chair with lifting arrangement. The developed model is cost effective, easy to operate and physically challenged persons can carry up to 100 kg of load independently.

No. of Pages : 5  No. of Claims : 6
(54) Title of the invention : DISINFECTION TUNNEL

ABSTRACT DISINFECTION TUNNEL This invention is a Disinfection tunnel consisting of disinfectant storage tank (1), Pump (2) driven & controlled by motion sensor (3), Steel/Stainless steel structure (4) fitted with nozzles at different position (5) inclined at different angles to ensure perfect spraying. Complete system is covered with vinyl curtains / other curtains (6) to resemble a tunnel. Structure is made up of square tube of Stainless steel/Mild steel with thickness range of 1mm to 4 mm and size of 2525 to 5050 based on the strength required. Piston type pump of pressure requirement 1 to 70 bar is utilized to drive disinfectant from storage tank to tunnel. Positioning & angle of spraying is vital to ensure proper dispensing of the disinfectant. System has 16 nozzle from entry to exit, positioning of each nozzle is detailed in the annexed figures. Men and material outside the tunnel are isolated by the vinyl curtains.

No. of Pages : 18 No. of Claims : 5
**Title of the invention:** AN AUTOMATED METHODOLOGY AND SYSTEM TO MANAGE THE STUDENT RELATED INFORMATION EFFICIENTLY

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<tr>
<td>Ms. IERIN BABU</td>
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<tr>
<td>Address of Applicant : D/O BABUKUTTY K, RESEARCH SCHOLAR (PART TIME), NOORUL ISLAM CENTRE FOR HIGHER EDUCATION, TAMIL NADU. ASSISTANT PROFESSOR, DEPT. OF CSE, ADI SHANKARA INSTITUTE OF ENGINEERING &amp; TECHNOLOGY, KALADY, KERALA- 683574, Tamil Nadu India</td>
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<td>Dr. PAUL P MATHAI</td>
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<td>Dr. R. V. SIVA BALAN</td>
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<td>RAGHU NANGUNURI</td>
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**Abstract:**

An automated methodology and system to manage the student related information efficiently is the proposed invention that aims at maintaining the data sets related to students as well as teaching and non-teaching staffs by optimizing the time required to complete the tasks by a greater extent. Maintaining and monitoring the entire information of an institution or an organization is not a cake walk. It involves lot of time as well as man power to maintain the records of students for years. Thus the proposed invention implements a methodology to save the information such as personal details, marks and much more for years by saving space and time. Also it is always safe to save the data on cloud since the chances of losing the hard data is very high. The system includes an alert system that monitors the student continuously and gives alert to the parents regarding their children performances.

No. of Pages: 27 No. of Claims: 8
Abstract:
In the world, the building Construction field was considered as least digitized and automated industries. With the help of construction robotics, most of the projects can complete more efficiently, because of its incredible repetition. In the last two decades, there is a significant advancement in the field of robotic science. The robots have become one of the solutions of the future to address the increasing demand for labor and customer’s needs. A robot is an automatic device that delivers automated tasks and movement based on pre-defined programs, general guidelines, and direct human supervision. The jobs either replace or enhance social work in the field of manufacturing or manipulation of heavy and hazardous material handling. Due to improving and upgrading quality standards of product, Research and development of future robots are moving at a very rapid pace. In modern industries, material handling plays a vital role in increasing productivity and decrease the cost of the product. A Cartesian robot can be described as an industrial robot whose three significant axes (X, Y, Z) of the controller are linear and are mutually perpendicular. Robots can perform capacities, for example, pick and spot, unloading and loading, material dealing with, etc. Cartesian robots are additionally called as Gantry robots as their flat part bolsters both the closures. The gantry crane system in building construction is used for transporting a payload, and the robot work with a multidimensional coordinate system. The primary objective is the object recognition and to pick up the correct object in an environment using gantry robot. Deep learning methods is used for better performance. Convolutional Neural Network (CNN) helps to find the object within a frame. YOLO (You Only Look Once) is one of the best methods of finding object recognition datasets. The advanced technology and continuous development process of robotic systems helps to improve the flexibility and functionality of gantry robots in the demanding environment of automation. Due to development in technology, robots have become one of the solutions in material handling to increase efficiency, accuracy, and safety of Workers, and it also leads to a decrease in the cost of workers.

No. of Pages : 14 No. of Claims : 10
The present invention relates to the field of tracking packages and consignments in a train network. An apparatus (1) to track consignments in train in which said apparatus (1) is disposed in a train rail wagon (31) wherein said apparatus (1) comprises of a reading unit (41) disposed in the loading station (32), a decoding unit (51) disposed in the unloading station (33), a control unit (61), a GPS module (62) and an alerting unit (71), said control unit (61) wirelessly connected to the cloud (81) through wireless communication means (63). FIG-1
Title of the invention: A SYSTEM AND METHOD OF INARIANT FEATURE BASED BRAIN TUMOR DETECTION AND CLASSIFICATION USING YOLO AND R- CNN

Abstract:
The present invention discloses, instead of training the classifiers with hand-crafted features, neural network based tumor detection and classification is used. This method achieves promising result better than humans. Invariant feature concept is added to the existing Darknet Architecture of You Only Look Once (YOLO) and is combined with Faster Region-Based Convolutional Neural Networks (Faster R-CNN) to count the number of tumors with different spatial locations. This combined model improved feature extraction step and tumor classification process. The proposed technique uses MR images from BRATS 2016 data set. Nearly 1000 brain MR images available are used to test for counting benign and malignant tumors. Experimental results proved that the proposed system is better by 9% in detecting smaller objects than existing works.

No. of Pages : 14 No. of Claims : 8
The present invention relates to a multi-functional hygienic device, particularly a hygienic device to protect as a barrier from germs. The hygienic device avoids the user to have a direct contact with surfaces, among others bags, doorknob, and handles. The said multi-functional hygienic device, comprising: a hook assembly to operate electrical switch and also to open and close the doors; a socket assembly to open and close the faucet knobs; a curved hook assembly to lift and carry bags; a gripper finger assembly to grip and lift an object or thing; a spoon assembly to eat food items; a straw assembly to drink liquid food items and proving a needle assembly to pierce an object or thing. The said multi-functional hygienic device is provisioned as a compact, affordable with minimum weight to enable the user to carry in a pocket or a purse or a handbag.
A SYSTEM FOR DISINFECTING HUMAN OR OBJECT FROM MICROBES USING PRESSURIZED STEAM

A system and method for disinfecting human or object from microbes using pressurized steam comprising; steam chamber (1) comprising rigid frame structure(2) having passageway (3) for the entry and exit of human or object pass through the dense steam; sensing means(27)provided in the two sides upright and cross member of the entry point send the signal to the accumulator (10) to release the steam generated and injected into the said accumulator (10) from the steam generator (12) through conduit channel (6) into plurality of nozzles (25) positioned towards the passageway of the steam chamber (1) where dosing pump (9) mix the herbal disinfectant composition drawn from the disinfectant source (21) before the steam enter into the conduit channel; hot air from the air blower (13) is blown through plurality of nozzles to eliminate the wetness on surfaces at the exit point.
Title of the invention: IOT BASED WATER MONITORING AND CONSERVATION WITH USER FRIENDLY INTERFACES

Abstract:
One of the most needed natural resource for living is water. Ground water level is reduced drastically and it can be seen in many places. For example during the time of (June 2019) Chennai faced a large water scarcity in which many companies including schools, colleges and people residing there faced a great life threat for survival. The main reason for this is people are unaware of the water usage on the daily basis and they fail to properly maintain the water that is stored in rain water harvesting system. So it is important that we have to add a rain water harvesting system which incorporates water level measurement to use the stored rain water if the tank is full. This is mainly carried out because rain is one the most important source for water. On the other hand automation setup for house overhead tank is added and it collects data with the help of Ultra-Sonic sensor (HC-04). In addition to this setup a smart billing system with RTC (Real Time Clock) is used to charge money after excess usage of water which slightly resembles TN EB billing system. In case of apartments we use water flow sensor that is placed in every portion’s main inlet for measuring flow rate. Turbidity of the water in tank is also measured to avoid unnecessary health problems. A single camera is used to monitor sediments, status and also the cleanliness of the tank. Due to the sediments the water pipelets gets blocked and some electrical appliances like water heaters and water purifiers get damaged. To overcome this issue a brush that is connected to shaft of the motor is used to clear those solidified sediments. This camera and tank cleaning setup will surely help the elderly people who find difficulty in monitoring the overhead tank. The whole process is carried out using Raspberry Pi 3B. One of the biggest advantages is that since the whole setup is placed in the overhead tank we can use solar panel for power supply.

No. of Pages: 14 No. of Claims: 5
The origin of health data resources are individual patients. Healthcare providers’ data includes a record of services, received conditions of those services and outcomes from the clinics. In last few years, the cyber-attacks such as ransomware and data breaches become trend. Human information exchange is the process of digital transfer of patient health information among various healthcare providers and research organizations. The challenges with HIE are privacy, security risk, low visibility of system transparency and lack of patient control. In order to prevent the privacy issues and security risks, the new emerging technology called blockchain technology can be used. Instead of storing the data centrally in database, the database is shared among the trusted networks and the data is kept secure via cryptography. Only authorized personnel can make the changes and data tampering is not possible. Data are stored in nodes among the network and if any new data is added it is broadcasted to all the trusted network nodes and this process is irreversible. As healthcare, blockchain paves its way to secure the communication and data storage among the various healthcare providers and research organizations. The proposed method provides high security against data breaches and attacks and also provides the trust between the patients and various healthcare professionals than existing methodologies.

No. of Pages : 13 No. of Claims : 6
Title of the invention: Serious Patients Checking System: SERIOUS PATIENTS CHECKING USING MACHINE LEARNING AND (AI) ARTIFICIAL INTELLIGENCE.

Abstract:
Patent Title: Serious Patients Checking System: SERIOUS PATIENTS CHECKING USING MACHINE LEARNING AND (AI) ARTIFICIAL INTELLIGENCE. ABSTRACT My Invention Serious Patients Checking System is a process of automated patient history intake including a retrieval system for retrieving pharmaceutical, immunity level information specific to a patient. The display system for displaying the pharmaceutical, immunity level information, and a reconciliation system for reconciling the pharmaceutical information using visual data. The invented technology takes automated patient check-in including a retrieval system for retrieving pharmaceutical information. The Automated Patient History Intake Device (hereinafter APHID system or technology) includes a software and hardware technology application that allows patients to complete a variety of self-service activities. The APHID system permits patients to check in for ambulatory care appointments and verify health record data before meeting with their clinician. Locally written software run on networked computer workstations (e.g. patient kiosks) allows patients to confirm their contact and billing information, medical history, allergy list, and current medication list. New medical information furnished by the patient can be retrieved from a secure printer or viewed by a clinician using a Serious Patients Checking System.

No. of Pages: 23
No. of Claims: 10
The present invention discloses a novel anti-bacterial oral cleansing agent with nil cytotoxicity to eliminate bacteria comprising of Streptococcus mutans, Candida albicans and Staphylococcus aureus in the mouth. The oral cleansing agent of the present invention comprises of therapeutically effective amounts of characterized Biogenic nano silver extract reduced from marine algae Ulva lactuca, along with combination of essential oils and emulsifiers or combination of ethanol, glacial acetic acid and distilled water.

No. of Pages : 10
No. of Claims : 6
The present invention discloses a novel anti-bacterial oral cleansing agent with nil cytotoxicity to eliminate bacteria comprising of Streptococcus mutans, Candida albicans and Staphylococcus aureus in the mouth. The oral cleansing agent of the present invention comprises of combination of therapeutically effective amounts of characterized Biogenic nano selenium and nano zinc extract reduced from Triphala, along with combination of essential oils and emulsifiers or combination of ethanol, glacial acetic acid and distilled water.

No. of Pages : 10 No. of Claims : 6
**Title of the invention:** AN ANALYTICAL METHOD FOR HEALTH RISK PREDICTION OF A PATIENT’S HEALTH IN REAL TIME USING MACHINE LEARNING

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<tr>
<td>G16H005020000, G06Q0050220000, G06N005020000, G06F0016245800, G06N005040000</td>
<td>1) Dr Senthilkumar S, Bharath Institute of Higher Education and Research</td>
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<th>Address of Applicant:</th>
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<tr>
<td>NA</td>
<td>Dr. S.Senthilkumar Professor, Department of Electronics and Instrumentation Engg, Bharath Institute of Higher Education and Research 173, Agaram Main Rd, Selaiyur, Chennai, Tamil Nadu 600073 Tamil Nadu India</td>
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<th>Name of priority country</th>
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<td>NA</td>
<td>1) Dr S Arun, Prathyusha Engineering College</td>
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**Abstract:**
Medical field data has drawn attention to interest among researchers. Development of a system to enable disease prediction decision-making utilizing the data collection of the medical industry utilizing data mining techniques. This invention proposes a novel method based on a knowledge system for the prediction of diseases by means of noise removal, clustering and prediction techniques. Fuzzy rules are generated using classification trees and regression trees that are used in the system based on the knowledge system. Testing of the proposed method is done on various medical dataset of public. Remarkable improvement is obtained by the proposed method for prediction of disease in the datasets of Cleveland, pima Indian diabetes etc. Combining fuzzy-based rule with CART noise removal with clustering techniques is successful in forecasting disease from the dataset of the real world. This knowledge-based program supports medical professionals in clinical scientific practice.

No. of Pages: 11 No. of Claims: 6
PROCESS FOR PRODUCTION OF FORTIFIED RICE ANALOGUES

Abstract: The present invention relates to process for preparation of fortified rice analogues and fortified rice by using by-products of rice and dhal mills. It particularly relates to development of suitable process for preparation of fortified rice analogues by using broken rice flour (BRF) and broken pigeon pea dhal flour (BPDF). It also relates to the process for fortification of the low cost rice by using low cost dhal along with the micronutrients by cold extrusion technology. The invention also relates to development of suitable process for production of fortified rice by using the formed fortified rice analogues. The product formed by the developed process are cost effective and can overcome the nutritional deficiency of the global rice consuming population along with effectively overcomes the malnutrition.

No. of Pages: 29
No. of Claims: 10
Agriculture is an important aspect of countries like India. The major occupation of Indian population depends upon agriculture for their livelihood almost 58% of rural household. The prosperity and economic condition of the country mainly depends upon the growth in agriculture to the large extent. All over the world, India is the second largest producer of food. Worldwide it is the second largest food producer. But currently most of the farmers are quitting agriculture due to many reasons such as lack of labors, water scarcity, less prices etc. In this major reason for quitting is the lack of labors so it is difficult to maintain irrigation system in the agricultural field. In order to overcome these issues, in this project the irrigation system is controlled by using remote control so that the farmer can maintain their fields without any labors help. Due to this proper irrigation system can be maintained and water can be saved to the greater extent. The concept of remote-controlled irrigation system with the help of voice commands was designed prior.
(54) Title of the invention: Covid19 Killer: SANITIZER MAKING PROCESS USING MACHINE LEARNING TO KILL SARS CORONAVIRUS (COVID19).

(51) International classification: G06N0020000000, C07C0409260000, C08G0059620000, A01N0037160000, C11D0003480000

(31) Priority Document No: NA
(32) Priority Date: NA
(33) Name of priority country: NA
(86) International Application No: PCT//
Filing Date: 01/01/1900
(87) 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:
Patent Title: Covid19 Killer: SANITIZER MAKING PROCESS USING MACHINE LEARNING TO KILL SARS CORONAVIRUS (COVID19). ABSTRACT The invention Covid19 Killer is to a disinfecting agent capable of killing coronary viruses (Covid19) of atypical pneumonia, which has the technical scheme that a peroxyacetic acid compound solution formed by proper proportion using matching learning programming of 1: 2.7 to 1: 8 is diluted by pure water through the proportion of 1: 200 to 1100 when being used, disinfesting goals are disinfected by a soak spray (time control by machine learning programming) way, an evaporating way, etc., and the coronary viruses (Covid19) resulted in the atypical pneumonia are 100% killed. The preparation method (Machine Learning) and the using method of this disinfectant. The compound system that mainly consists of hydrogen peroxide and Peracetic acid composition of disinfectant of the invention is represented as with structural formula: H2O2+ CH3COOH and CH3COOOH+H2. The oxidation coexistence equilibrium system of O, other consist of: non-ionic surface active agent (n=10-12), the cationic high-molecular thickener, macromolecular complexing agent (molecular weight =4250), state amyldiacid peroxide, oxyquinoline, its surplus is a water. Disinfectant of the invention is preferably filled a prescription and is consisted of: Hydrogen peroxide: 26-31%, Glacial acetic acid: 9-14%, Alkylol APEO: 2-4%, Polyvinylpyroloidone: 4-7%, Disodium ethylene diamine tetraacetate (EDTA): 0.02-0.15%, State amyldiacid peroxide: 3-5%, Oxyquinoline: 0.35-0.57%, Its surplus is a pure water and other required things can have mixed.

No. of Pages: 16 No. of Claims: 10
TITLE: Portable Mini Wind Turbine Head Lighter System for Electric Scooter

The present invention comprises of a Mini wind turbine (1) which acts as fence to the wind. The dimension of each blade is 6 cm x 1 cm and when the wind forces at Electric vehicles the turbine moves and transfers a certain amount of the wind energy to the Rotor. When the rotor rotates, the shaft also rotates which transfers the mechanical energy into revolving energy. Brushless DC Motors (2) are inbuilt with the shaft for energy conversion process inside in the Brushless DC Motor (2). The energy conversion is based on Faraday’s laws of electromagnetic induction that dynamically induces an electromagnetic force into the Brushless DC motor (2) armature coils as it revolves to produce electric current. The generating emf output from 9 to 15 volts that is proportional to its speed of rotation and Magnetic field Strength.

No. of Pages: 30  No. of Claims: 3
**Title of the invention:** AN INTERACTIVE SYSTEM AND METHOD OF IOT AND CLOUD COMPUTING FOR INTELLIGENT POWER UTILIZATION

**Abstract:**

The present disclosure belongs to an Internet of Things and cloud computing-based real-time interactive intelligent power utilization system and a method in the field of automatic power utilization systems, and particularly relates to an Internet of Things and cloud computing-based interaction intelligent power utilization system. An intelligent terminal and an intelligent electric meter of the Internet of Things and cloud computing-based interactive intelligent power utilization system are connected through respective interfaces through wired communication in half-duplex mode; the intelligent terminal is in wired communication with a number of intelligent sockets through respective microcontroller modules ensuring effective monitoring and administration of peak shaving and valley filling operations on heavily loaded connection lines.

No. of Pages: 22
No. of Claims: 7
Title of the invention: A MICROBIAL FUEL CELL FOR GENERATING ELECTRICITY FROM WASTEWATER

Abstract:
A microbial fuel cell for generating electricity from waste water works on the principle of converting chemical energy from microbes to electrical energy. In this study, The fabricated device consists of three chambers, with an Anion exchange membranes (AEM) next to the anode and Cation exchange membranes (CEM) by the cathode, and a middle chamber between the membranes filled with saline water. Two types of membranes were in the operational set up, commercially available membrane and membrane made using resins. AEM and CEM membranes were prepared using simple solution casting technique. Solution casting technique was chosen because it is simple, cost effective and time saving method for the preparation of polymer membranes. The preparation techniques and composition of the membranes were maintained same for both AEM and CEM membranes. It was observed that ion exchange capacity and electricity generation (max of 196.6 mV) was more as in membrane made of resins than the commercially available membrane (max of 0.503 mV). This study explored new path for electricity generation using novel cost effective resin based membrane.

No. of Pages: 27 No. of Claims: 13
PATENT APPLICATION PUBLICATION

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :26/05/2020

(21) Application No.202041021899 A
(43) Publication Date : 05/06/2020

(21) Application No.202041021899 A
(36) Priority Document No :NA
(32) Priority Date :NA
(33) Name of priority country :NA
(54) Title of the invention : MANUFACTURING OF 3D DELTA CONCRETE PRINTER
(51) International classification : G06F0017500000, G06Q0010060000, E04B0002860000, E04G0021040000, E04B0001160000
(50) International Publication No :NA
(61) Patent of Addition to Application Number :NA
(62) Divisional to Application Number :NA
(56) Abstract :
3D concrete printing is an innovative construction method that promises to be highly advantageous in the construction field in terms of optimizing construction time, cost, design flexibility, error reduction, and environmental aspects. Concrete is extruded through a nozzle to build structural components layer-by-layer without the use of formwork or any subsequent vibration. The contribution of this study is to identify and resolve the various design and operational constraints of 3D concrete printing, which are of vital importance for future development of this construction technique. This paper broaches the topic in two different phases: designing the printing machine on one hand, and designing the concrete mix to be used on the other. Experimental results are presented concerning the mix design and the tests performed to determine the fresh and hardened concrete properties. Due to the scarcity of published studies on concrete properties used in 3D printing, the results might be invaluable to the future of this technology. The study may lend itself to become the blueprint for future bigger-scale projects such as creating whole buildings using 3D concrete printers.

No. of Pages : 6 No. of Claims : 5
The Patent Office Journal No. 23/2020 Dated 05/06/2020

(54) Title of the invention: A DEVICE FOR SLEEP STAGE MONITORING WITH EEG FEATURE EXTRACTION USING LOT

(57) Abstract:
Electroencephalogram is a medical procedure which helps in analyzing the activities of the brain through electrical signals. In this paper a simple classification technique of EEG signal into two stages as NREM sleep and awaken stages had been undertaken. Classifying these stages helps the physician to understand the patient’s sleep disorder by knowing whether the person’s brain is in NREM sleep or awaken stages. Physionet EEG signals are samples of 256 signals per second for 10 seconds duration is used in this work. Then the EEG samples properties are analyzed through various parameters like statistical features, entropy Pearson correlation coefficient, Power spectral density, scatter plots and Hilbert transform plots. The classification of NREM sleep and awaken stage is performed by the ten different classifiers broadly grouped into non linear and hybrid one. The classifiers used include Linear Regression, Non Linear Regression, Logistic Regression, Principal Component Analysis, Kernel Principal Component Analysis, Expectation Maximization, Compensatory Expectation Maximization, Expectation Maximization with Logistic Regression, Compensatory Expectation Maximization with Logistic Regression, and Firefly. The performances of the classifiers are analyzed using regular parameters like sensitivity, accuracy, specificity, performance index. The present invention disclosure generally relate to a system, apparatus and method that allow us to detect the Electroencephalogram (EEG) signals from microelectrode array with signal acquisition amplifier in EEG signal during sleep and processing of a comprehensive, and simple manner through IoT.

No. of Pages : 17
No. of Claims : 6
DEVICE FOR VAPORIZING LIQUID. A device comprises a housing, a vaporization zone, a power source assembly, and a first connecting member. The housing comprises a first air flow path enabling flow of air from entry of the air into the housing to exit of the air from the housing. The vaporization zone provided in the housing to vaporise the liquid is disposed in the first air flow path. A power source assembly operably coupled to the housing comprises a second air flow path enabling the flow of air from entry of the air into the housing to exit of the air from the housing. The first connecting member establishes a fluidic communication between the first air flow path and the second air flow path and comprises a flexible member. The flexible member is deformable and reform-able, to compensate for gap between the housing and the power source assembly when coupled.

No. of Pages : 54 No. of Claims : 19
Title of the invention: SELF STABLE MICROENCAPSULATED POLYPHENOLS COMPRISING MICROBEADS
COMPRISING NON-THERMALLY ENCAPSULATED POLYPHENOLS INCLUDING ALGINATE-ß-LACTOGLOBULIN

International classification: B01J0013020000, A61K0031700000, A61K0009160000, A23L0019000000, A23L0033105000

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Name of Inventor:
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2) SANKAR CHANDRA DEKA

Abstract:
Self stable, ready-to-use microencapsulated fruit polyphenols, comprises microbeads comprising non-thermally encapsulated polyphenols including a synergistic combination of alginate-ß-lactoglobulin involving polyphenol: alginate: ß-lactoglobulin in 5 to 10 % : 1 to 1.5 %: 0.5 to 1.0 % by w/v of uniform structure and self-stability of up to 6 months at room temperature in ambient condition. The said microbeads comprising small size particles with highly cross-linked surface, have high encapsulation efficiency, higher thermal stability and higher in-vitro release of polyphenols in intestinal digestion medium, meagre loss of polyphenols under UV rays (after 90 min) and osmotic solution (80°Brix, after 180 min). The process for synthesizing the said microbeads involving non thermal microencapsulation of purified polyphenols extracted from fruit pomace. The said process of microencapsulation involves jet-flow vibration technology. Advantageously the said process provides a solution to the problems of microencapsulation of polyphenols through exiting processes.

No. of Pages: 27 No. of Claims: 14
Publication After 18 Months:

The following Patent Applications have been published under Section 11A (3) of The Patents (Amendment) Act, 2005. 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.201811045453 A
(19) INDIA
(22) Date of filing of Application :01/12/2018
(43) Publication Date : 05/06/2020

(54) Title of the invention : THERMO ELECTRIC DC GENERATOR WITHOUT EXTERNAL ENERGY/FUEL

(57) Abstract :
The present invention relates to a thermoelectric DC generator without fuel; comprising thermoelectric modules; water heating rods; a liquid nitrogen generator coupled to an invertors; steel sheets of thickness of about 5 mm; plurality of steel pipes; fibre glass of thickness of about 2mm; plurality of on/off switches and wires; inverter and inverter battery associated to said switches and water steam temperature sensor and water level sensor.

No. of Pages : 8 No. of Claims : 4
The present invention relates to hydrogel with high mechanical stability and a method of making the same. The invention is a Poly [N-Acrylglycine-Acrylamide] (Poly-NAG-AA) hydrogel which shows high mechanical stability, 98% biocompatibility and 158% cell proliferation, typical linear viscoelastic behavior (LVE) (constant values as strain is varied) up to 10% strain for all approximately up to 5% strain for 20% and less than 5% for 30% at all three 10 temperatures i.e. 30, 37 and 40°C. Further, the hydrogel has $G'\gg G''$, which typically shows stronger nature of the hydrogel and thus is useful for tissue engineering, drug delivery and therapeutic applications.
A method for preparing azoxystrobin comprises the following steps: (a) mixing methyl (E)-2-[2-(6-chloropyrimidin-4-yloxy)phenyl]-3-methoxyacrylate, 2-cyanophenol, potassium carbonate, and 10-80 mol% of 1-methylpyrrolidine as a catalyst in an aprotic solvent to form a basic mixture, and reacting the basic mixture for 2-5 hrs at a temperature of 60-120°C; and (b) subjecting the basic mixture after reaction in Step (a) to a first distillation under a reduced pressure of 80-120 torr at 70-80°C, to obtain azoxystrobin.
The present invention has disclosed a multifunctional automatic quality inspection machine and a control method thereof, which relates to the technical field of inspection devices. The machine comprises a frame, an unrolling device provided at the frame, an inspection mechanism, a button operating platform for removing a defective roll-type printing product, a slitting mechanism, a main controller, a display device, and a rolling device; a paper movement route is provided between the unrolling device and the rolling device; the inspection mechanism and the display device are respectively electrically connected to the main controller; the rolling device includes a first rolling airshaft, a second rolling airshaft, and a rolling drive device; the first rolling airshaft and the second rolling airshaft are both provided on the rolling drive device; the first rolling airshaft and the second rolling airshaft swap their positions via the rolling drive device; the first rolling airshaft and the second rolling airshaft have a number of functions including automatic unrolling, high inspection precision, discharging waste materials, splitting and quick rolling; it is highly automatic and could effectively increase productivity.
The Patent Office Journal No. 23/2020 Dated 05/06/2020

Title of the invention: AUTOMATIC QUALITY INSPECTION MACHINE AND CONTROL METHOD THEREOF

Abstract:
The present invention has disclosed an automatic quality inspection machine and a control method thereof, which relates to the technical field of inspection devices. The machine comprises a frame, an unrolling device provided at the frame, an inspection mechanism, a button operating platform for removing a defective roll-type printing product, a slitting mechanism, a main controller, a display device, and a rolling device. The rolling device includes a first rolling airshaft and a first outgoing feed roller corresponding to the first rolling airshaft; the second rolling mechanism includes a second rolling airshaft and a second outgoing feed roller corresponding to the second rolling airshaft. The automatic quality inspection machine comprises a frame, an unrolling device provided at the frame, an inspection mechanism, a button operating platform for removing a defective roll-type printing product, a slitting mechanism, a main controller, a display device, and a rolling device, the machine has a number of advantages including multifunctional, highly automatic, and high inspection accuracy; the machine could quickly replace rolls and could effectively increase production efficiency.
The disclosure provides a display (110), a method for monitoring played content and a system (100) using the same method. The method includes: capturing a played screen of a multimedia content at a specified timing point; using a first feature extracting model to transform the played screen to a played screen feature sequence; determining whether the reference screen feature sequence corresponding to the specified time point matches the played screen feature sequence; if yes, determining the multimedia contents have been correctly played, and vice versa.
**Title of the invention:** PAPER SHEET SORTING SYSTEM

**Abstract:** Paper sheet sorting system includes paper sheet sorting apparatus (100) and additional stacker unit (200) connected to apparatus (100). Paper sheet sorting apparatus (100) includes one or more main stackers (120) arranged in right-left direction and forward-opened, and one or more additional conveyance paths (151). Additional stacker unit (200) includes one or more upper stage additional stackers (21u) provided on upper side, arranged along right-left direction, and forward-opened, one or more lower stage additional stackers (21d) provided on lower side, arranged along right-left direction, and forward-opened, upper conveyance path (19u) extending in right-left direction and conveys paper sheets to be sorted to any of one or more upper stage additional stackers (21u), and lower conveyance path (19d) extending in right-left direction and conveys paper sheets to be sorted to any of one or more lower stage additional stackers (21d). At least one of one or more additional conveyance paths (151) is connected to at least one of upper conveyance path (19u) and lower conveyance path (19d).
Methods of controlling a tandem axle assembly in a vehicle, the tandem axle assembly including an inter-axle differential (IAD), one or more side gears, and a front tandem axle assembly having a pair of front tandem axle half shafts selectively connected to a pair of front tandem axle wheel hub assemblies. When a determined speed of the vehicle is greater or equal to a predetermined speed, the IAD may be locked, the tandem axle wheel hub assemblies may be disconnected from their respective tandem axle shafts, and/or the IAD may be moved out of engagement with the one or more side gears. When a determined speed of the vehicle is less than a predetermined speed, the IAD may be unlocked, the tandem axle wheel hub assemblies may be connected to their respective tandem axle shafts, and/or the IAD may be engaged with the one or more side gears.
(54) Title of the invention : DISPLAY DEVICE

(51) International classification: H01L0027320000, H01L0051520000, H01L0051500000, G06F0003044000, G02F0001134300

(31) Priority Document No: 10-2018-0149927
(32) Priority Date: 28/11/2018
(33) Name of priority country: Republic of Korea

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

(87) 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 display device includes a substrate including first and second sub pixels, a first electrode patterned in each of the first and second sub pixels on the substrate, a first emission layer in each of the first and second sub pixels on the first electrode to emit first colored light, a second electrode in each of the first and second sub pixels on the first emission layer, a second emission layer on the second electrode to emit second colored light, and a third electrode on the second emission layer. The first electrode of the first sub pixel is relatively larger than the first electrode of the second sub pixel, the first electrode of the first sub pixel is electrically connected with the second electrode of the first sub pixel, and the first electrode of the second sub pixel is insulated from the second electrode of the second sub pixel.

No. of Pages : 50 No. of Claims : 20
Title of the invention: REAR STRUCTURE OF VEHICLE BODY

Abstract:
Trailing arms (61) are attached respectively to side members (12) located between a first rear cross member (21) and a second rear cross member (22), two sub-members (30) are joined to a lower surface of a rear floor panel (10), a front portions of the sub-members (30) are joined to the first rear cross member 21, and a rear portions are joined to the second rear cross member (22). A sub-arm supporting member (45) is joined to a lower surface of the rear floor panel (10), both side portions of the sub-arm supporting member (45) are joined to the sub-members (30), inner portions of the sub-arms (41, 42) are joined to the sub-arm supporting member (45), and outer portions of the sub-arms (41, 42) are joined to the trailing arms (61).
The Patent Office Journal No. 23/2020 Dated 05/06/2020

No. of Pages : 58 No. of Claims : 15

(54) Title of the invention : ONLINE AUTHENTICATION

(31) Priority Document No : 18209328.6
(32) Priority Date : 29/11/2018
(33) Name of priority country : EPO
(86) International Application No : NA
   Filing Date : NA
(87) International Publication No : NA
(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 of establishing a digital identity for use of an online service and of subsequently using the digital identity to perform the online service is described. A digital identity for the online service is bound to computer hardware associated with the digital identity. A user associated with the digital identity provides a user authentication at the computer hardware associated with the digital identity. The digital identity is enrolled for the online service, and a first instance of the online service for the digital identity is performed. A common user authentication process result completes enrolment of the digital identity and authenticates the digital identity for performing said first instance of the online service.
(54) Title of the invention : GUARD STRUCTURE FOR SADDLE RIDING VEHICLE


(31) Priority Document No : 2018-221962
(32) Priority Date : 28/11/2018
(33) Name of priority country : Japan
(86) International Application No : NA
Filing Date : NA
(87) International Publication No : NA
(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) OKAMURA Hiroshi

(57) Abstract :
To provide a guard structure for a saddle riding vehicle that can make rigidity of a vehicle frame suitable. [Solving Means] The guard structure for a saddle riding vehicle includes a body frame 10, a guard member 50 fixed to the body frame 10 and guarding a vehicle body, a stay 53L, 54R connecting the guard member 50 to the body frame 10. The stay 53L,53R includes a frame connection section 70,270 connected to the body frame 10 side, a guard member connection section 71,271 connected to the guard member 50, and a linking section 72,272 that connect the frame connection section 70,270 and the guard member connection section 71,271. The stay 53L,54R is formed in a U shape by the frame connection section 70,270 and the guard member connection section 71,271, which are disposed to face each other, and the linking section 72,272.

No. of Pages : 78 No. of Claims : 11
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<th>Abstract</th>
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<td>A top of rail (TOR) applicator has a bar positioned in a housing and an exit orifice on the upper portion of the bar for delivering a friction control composition to the crown of a railhead. The upper portion of the bar slopes away from the friction control composition exit orifices. The bar may be composed of an elastomer such as polyurethane. Passageway extend from an inlet or entry orifice to the exit orifices. The friction reduction composition is pumped into the entry orifice, through the passageways to the exit orifices and then onto the crown of the railhead. The friction reduction composition may be thixotropic.</td>
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Title of the invention: AXLE ASSEMBLY HAVING AN ELECTRIC MOTOR MODULE AND METHOD OF ASSEMBLY

International classification:
H02K0009190000, H02K0005200000, H02K0011330000, H02K0007140000

Priority Document No: 16/205,586
Priority Date: 30/11/2018
Name of priority country: U.S.A.

Name of Applicant:
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Name of Inventor:
1) Raya, Dhanapal Vittal
2) Smith, Mark
3) Ghatti, Chetankumar
4) Byrd, Kristen G.

Abstract:
An axle assembly having an electric motor module and a method of assembly. The electric motor module may include a motor housing, a coolant jacket that may be received in the motor housing, and stator windings that may be disposed in the coolant jacket. A mounting flange of a differential carrier may receive a portion of the coolant jacket.

No. of Pages: 83
No. of Claims: 20
To facilitate satisfactorily securing of a fixing item, such as rope or the like, to a luggage hook, in a grab rail of a saddle riding vehicle.

[Solution] A grab rail of a saddle riding vehicle is secured to a rear portion of a body frame 10. The grab rail 50 includes: a grip 51 that extends in a vehicle longitudinal direction; a grip extension 60 that extends downward from a front end of the grip 51; a front side fixation portion 61 that is connected to a lower end of the grip extension 60 and is attached to the body frame 10; and a coupler 62 that couples the grip extension 60 and the front side fixation portion 61. The grab rail 50 includes a luggage hook 70 that is formed by an opening 65. The opening 65 is defined by the grip extension 60, the front side fixation portion 61 and the coupler 62.
Abstract:
An axle assembly having a resolver and a method of assembly. The axle assembly may include an electric motor module that may be mounted to a differential carrier. The electric motor module may have a motor cover that may be disposed opposite the differential carrier. The resolver may be mounted to a side of the motor cover that may face away from a rotor.

No. of Pages : 83 No. of Claims : 20
Title of the Invention: AXLE ASSEMBLY HAVING COUNTERPHASE PLANET GEARS

Abstract:
An axle assembly having a planetary gear set. The planetary gear set may include first and second sets of planet gears that may mesh with a sun gear and a planetary ring gear. The second set of planet gears may be spaced apart from the first set of planet gears and may be positioned in counterphase with the first set of planet gears.

No. of Pages: 84 No. of Claims: 20
Disclosed herein is a dicing apparatus dividing a wafer having a plurality of devices formed thereon into individual device chips, the wafer being supported by an annular frame through an adhesive tape. The dicing apparatus includes: a chuck table including a wafer support table that supports the wafer thereon, and a plurality of frame support portions which are disposed on an outer periphery of the wafer support table and support the annular frame; and a cutting unit performing cutting processing on the wafer supported on the wafer support table. The wafer support table includes an ultraviolet irradiation unit irradiating ultraviolet rays such that an adhesive force of the adhesive tape in a region corresponding to the wafer is reduced.

No. of Pages : 32 No. of Claims : 3
(54) Title of the invention: TAPE ATTACHING APPARATUS

(51) International classification: H01L0021670000, H01L0021683000, H01L0021687000, H01L0021673000, C23C0016480000

(31) Priority Document No: 2018-225369
(32) Priority Date: 30/11/2018
(33) Name of priority country: Japan

(57) Abstract:
There is provided a tape sticking apparatus that positions a wafer in an opening part of a ringshaped frame having the opening part housing the wafer and sticks an adhesion tape to the ring-shaped frame and the wafer to integrate the ring-shaped frame and the wafer.

The tape sticking apparatus includes a wafer support table that supports the wafer, a frame support table that is disposed at a periphery of the wafer support table and supports the ring-shaped frame, tape sticking means that sticks the adhesion tape to the ring-shaped frame and the wafer, and ultraviolet irradiation means that irradiates the adhesion tape, to which the wafer is stuck, with ultraviolet rays through the wafer support table.

No. of Pages: 28  No. of Claims: 2
The present disclosure relates to a water purifier including a cabinet and a support frame fixedly installed inside the cabinet. A plurality of mounting grooves is provided on an upper part of the support frame so that a cold water tank and a plurality of filters are installed, respectively, and a hot water tank is installed at a lower part of the support frame to be spaced apart from the cold water tank.
Some embodiments of the present disclosure provide a transmission module, a transmission mechanism, and a mobile terminal. The mobile terminal includes a terminal device, a driving mechanism, a transmission assembly and a mounting seat. The terminal device includes a front face, a rear face and a side peripheral face, and the terminal device defines a mounting groove. The driving mechanism is coupled to the terminal device. The transmission assembly includes a first pushing member and a second pushing member coupled to the first pushing member, and the first pushing member is coupled to the driving mechanism. The mounting seat is coupled to the first pushing member and the second pushing member, and the mounting seat is provided with a camera module. The driving mechanism enables the first pushing member to move from a first position to a third position via a second position.
The present disclosure relates to a transmission mechanism, a driving mechanism assembly, and a mobile terminal. The mobile terminal includes: a shell (100) including a first mounting face (110) and second mounting face (120) opposite the first mounting, and a side face (130), the first mounting face defining an accommodation groove (111) extending to the side face along a first direction; a camera mounting assembly (300), including a mounting seat (310) and a camera (320), wherein the mounting seat is arranged in the accommodation groove; and a driving mechanism assembly (400), including a driver (410) coupled to the shell and a transmission mechanism (420), the driver is movable to drive, by the transmission mechanism, the mounting seat to extend from the accommodation groove and capable of driving the mounting seat to rotate around a rotating shaft and the rotating shaft being parallel to the first direction.
**Title of the invention:** MOBILE TERMINAL AND IMAGE ACQUISITION MODULE

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<td>GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP., LTD.</td>
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<tr>
<td>Address of Applicant: No.18, Haibin Road, Wusha, Chang'an, Dongguan, Guangdong 523860, China. China</td>
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<tr>
<td>LI, Biao</td>
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**Abstract:**

The present disclosure relates to a mobile terminal and an image acquisition module. The image acquisition module (100) includes a mounting seat (210), a camera assembly (220), and a light source (230). The mounting seat (210) includes a pedestal (211) and a light transmission member (212), the light transmission member (212) is coupled to the pedestal (211), wherein the pedestal (211) and the light transmission member (212) cooperatively define a receiving cavity; the camera assembly has an incident surface, the camera assembly (220) is arranged in the receiving cavity, and the incident surface (220a) exposes from the light transmission member (212); a light source (230) is configured to emit light transmitting through the light transmission member (212). According to the mobile terminal and image acquisition module of the present disclosure, the light source (230) is configured to emit light transmitting through the light transmission member (212), and the light is transmitted to the side where the incident surface (220a) of the camera assembly (220) is located, so that a relatively good light effect is able to be achieved during shooting to improve a shooting experience.
Title of the invention: METHOD FOR DETERMINING AN AIR MASS FLOW FOR AN INTERNAL COMBUSTION ENGINE

Abstract:
Method for determining an air mass flow (mAFLT) of an internal combustion engine (10), characterized in that a pressure difference value is determined via a flow resistance in a suction tube, wherein the air mass flow (mAFLT) is determined in the suction tube as a function of the pressure difference value via the flow resistance and at least a controller for the air mass flow (mAFLT) is controlled as a function of the determined air mass flow (mAFLT).

No. of Pages: 12 No. of Claims: 8
(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application : 27/11/2019

(43) Publication Date : 05/06/2020

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(71) Name of Applicant : 1) HONDA MOTOR CO., LTD.  
Address of Applicant : 1-1, Minami-Aoyama 2-chome, Minato-ku, Tokyo 107-8556 Japan Japan

(72) Name of Inventor : 1) KATSUTA Jumpei  
2) YOKOTANI Hitoshi  
3) MORIYAMA Yuichi

(57) Abstract:
To provide an internal combustion engine that can secure oil of an amount that is sufficient to a bearing of a crankshaft even when the capacity of an oil pump is reduced. [MEANS FOR SOLUTION] An internal combustion engine includes: a crankcase 29 that defines a first oil supply passage 175, oil being supplied to the first oil supply passage 175 from an oil pump, the first oil supply passage 175 being connected to bearings 43a, 43b of a crankshaft 42; a cylinder block 31 that defines a second oil supply passage 93 connected to the first oil supply passage 175 at a joint surface 104 of the cylinder block 31 and the crankcase 29; and a gasket 105 that is sandwiched between the crankcase 29 and the cylinder block 31 and seals the joint surface 104 of the crankcase 29 and the cylinder block 31 around a cylinder. A throttle hole 176 is formed in the gasket 105, the throttle hole 176 having a sectional area smaller than that of the first oil supply passage 175 and connecting the second oil supply passage 93 to the first oil supply passage 175.

No. of Pages : 37 No. of Claims : 5
(12) PATENT APPLICATION PUBLICATION (21) Application No.201914048586 A
(19) INDIA
(22) Date of filing of Application :27/11/2019 (43) Publication Date : 05/06/2020
(54) Title of the invention : INTERNAL COMBUSTION ENGINE

(51) International classification :F04B0027180000, F02F0007000000, F01M0013000000, F01M0011020000, F02F0001000000

(31) Priority Document No : 2018-226046
(32) Priority Date :30/11/2018
(33) Name of priority country : Japan
(86) International Application No Filing Date :NA
(87) International Publication No Filing Date : NA

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

(57) Abstract : To provide an internal combustion engine that can attain a positive pressure in a crank chamber without a time lag according to descending of a piston. [MEANS FOR SOLUTION] An internal combustion engine includes a crankcase 29, a first one-way valve 139, and a case cover 45, the crankcase 29 defining a crank chamber 41 and an oil chamber 134, the crank chamber 41 storing a crank weight of a crankshaft, the oil chamber 134 being separated from the crank chamber 41 and communicating with an oil pump, the first one-way valve 139 being disposed between the crank chamber 41 and the oil chamber 134 and opening according to a positive pressure inside the crank chamber 41, the case cover 45 being joined to the crankcase 29, covering an end of the crankshaft that protrudes from the crankcase 29, and defining a storage chamber 47 between the case cover 45 and the crankcase 29. A second one-way valve 167 is disposed between the crank chamber 41 and the storage chamber 47, the second one-way valve 167 opening according to a negative pressure inside the crank chamber 41.

No. of Pages : 40 No. of Claims : 7
A method and a device for determining a particle load of a particle filter (1) which filters out particles from the exhaust gas of an internal combustion engine (2) are proposed. Means are provided which, on the basis of a model, determine a first particle load, based on a current number of particles which are fed to the particle filter (1) and a number of particles which are removed from the particle filter (1). Furthermore, a measurement of the pressure before and after the particle filter (1) is made and determined from the measurement, a second particle load. The first particle load and second particle load are used to determine particle load.
(54) Title of the invention: BINDER COMPOSITION FOR SECONDARY BATTERY ELECTRODE SLURRY COMPOSITION COMPRISING SAME AND ELECTRODE AND SECONDARY BATTERY

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(71) Name of Applicant:
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   Address of Applicant: 128, Yeou-daero, Yeongdeungpo-gu, Seoul 07336 Republic of Korea

(72) Name of Inventor:
1) HAN, Hye Soo
2) HAN, Seon Hee
3) KANG, Min Ah
4) CHOI, Cheol Hoon
5) RYU, Dong Jo

(57) Abstract:
The present invention relates to a binder composition for a secondary battery an electrode slurry composition comprising the same and an electrode and a secondary battery which are manufactured by using the same the binder composition comprising: latex particles (A) which are a polymer of a monomer mixture comprising a conjugated diene-based monomer (a1) an ethylenically unsaturated carboxylic acid monomer (a2) and an aromatic vinyl-based monomer (a3); and an emulsifier (B) wherein 3 parts by weight or more of the ethylenically unsaturated carboxylic acid monomer (a2) is included on the basis of 100 parts by weight of the monomer mixture and the emulsifier (B) is included in an amount of less than 3000 ppm on the basis of 100 parts by weight of the latex particles.

No. of Pages: 31 No. of Claims: 11
The present invention relates to a cathode for a lithium secondary battery and a lithium secondary battery comprising the same, the cathode for a lithium secondary battery comprising: a cathode current collector; and a cathode active material layer formed to be coated on at least one surface of the cathode current collector, wherein the cathode current collector comprises an uncoated portion which protrudes and is not coated with the cathode active material layer, and the uncoated portion has coated thereon a non-reversible material formed of a lithium oxide.
The present invention relates to a multi-layer electrode and a manufacturing method thereof, and more specifically, a multi-layer electrode which comprises an electrode current collector; and two or more electrode active material layers which are sequentially applied to one or both surfaces of the electrode current collector, wherein the electrode active material layers each include a carbon-based material, a binder, and a silicon-based material, and based on the direction of formation of the electrode active material layers, the content of the carbon-based material and the content of the binder in the electrode active material layer, which is positioned relatively closer to the electrode current collector, among the mutually adjacent electrode active material layers, is greater than the content of the carbon-based material and the content of the binder in the electrode active material layer which is positioned relatively farther from the electrode current collector, and the content of the silicon-based material of the electrode active material layer which is positioned relatively farther from the electrode current collector is greater than the content of the silicon-based material of the electrode active material layer which is positioned relatively closer to the electrode current collector, and a method for manufacturing same.
(12) PATENT APPLICATION PUBLICATION
(21) Application No.201917041776 A

(19) INDIA

(22) Date of filing of Application :15/10/2019
(43) Publication Date : 05/06/2020

(54) Title of the invention : THERAPEUTIC AGENT FOR BLOOD CANCER

| (51) International classification | :C12N 15/113, C07H 19/067, A61K 31/7088 |
| (31) Priority Document No | :10-2017-0164409 |
| (32) Priority Date | :01/12/2017 |
| (33) Name of priority country | : Republic of Korea |
| (86) International Application No | :PCT/KR2018/015054 |
| Filing Date | :30/11/2018 |
| (87) International Publication No | :WO/2019/108004 |
| (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 : TOWER 5F. #A0504 13, Heungdeok 1-ro, Giheung-gu, Yongin-si Gyeonggi-do 16954 Republic of Korea
2) SAMJIN PHARMACEUTICAL CO., LTD.

(72) Name of Inventor :
1) MOON, Sung Hwan
2) LEE, Soo Jin
3) JI, Yu Mi
4) SHIN, Hee Jong
5) KI, Min Hyo
6) PARK, Yong Bin
7) UM, Ji Hyun

(57) Abstract :
Disclosed is an oligonucleotide-modified nucleic acid containing at least one 1--D-arabinofuranosylcytosine as a modified nucleic acid having therapeutic efficacies and guanosine. More particularly a novel oligonucleotide-modified nucleic acid containing at least one modified nucleic acid (N) having therapeutic efficacies and being rich in guanosine (G) is synthesized and the fact that the novel oligonucleotide-modified nucleic acid has excellent apoptotic activities on blood cancer cells and drug-resistant blood cancer cells is identified. Based on this provided is a composition for preventing ameliorating or treating blood cancer containing the novel oligonucleotide-modified nucleic acid and the novel oligonucleotide-modified nucleic acid or a pharmaceutically acceptable salt thereof as an active ingredient.
The present invention relates to: an electrode assembly in which two or more cathodes and one or more anodes are alternately stacked with separators interposed therebetween wherein outermost cathodes are located at both outermost sides of the electrode assembly respectively each of the outermost cathodes includes a cathode current collector a cathode active material layer formed on one side of the cathode current collector and a lithium oxide-containing irreversible material coating layer formed on the other side of the cathode current collector and the irreversible material coating layer is located at the corresponding outermost side of the electrode assembly; and a lithium secondary battery including the same.

| (51) International classification | :H01M 10/0585, H01M 10/04, H01M 4/134, H01M 4/131, H01M 10/0525 |
| (54) Title of the invention | ELECTRODE ASSEMBLY AND LITHIUM SECONDARY BATTERY INCLUDING SAME |
| (55) No. of Pages | 20 |
| No. of Claims | 10 |
| (71) Name of Applicant | 1) LG CHEM, LTD. Address of Applicant: 128, Yeoui-daero, Yeongdeungpo-gu, Seoul 07336 Republic of Korea |
| (72) Name of Inventor | 1) SONG, Jooyong 2) KIM, In Chul 3) KIM, Juri 4) KIM, Hyun Min |
| (57) Abstract | The present invention relates to: an electrode assembly in which two or more cathodes and one or more anodes are alternately stacked with separators interposed therebetween wherein outermost cathodes are located at both outermost sides of the electrode assembly respectively each of the outermost cathodes includes a cathode current collector a cathode active material layer formed on one side of the cathode current collector and a lithium oxide-containing irreversible material coating layer formed on the other side of the cathode current collector and the irreversible material coating layer is located at the corresponding outermost side of the electrode assembly; and a lithium secondary battery including the same. |
The present invention provides a composition for gel polymer electrolyte, gel polymer electrolyte prepared by means of same, and a lithium secondary battery, the composition comprising: a first oligomer represented by chemical formula (1); a second oligomer comprising a first repeating unit represented by chemical formula (2a) and derived from a styrene monomer; a polymerization initiator; lithium salts; and a non-aqueous solvent.
The present invention provides an absorbent article for urine which can exhibit excellent absorption ability even when urine is repeatedly supplied by a wearer. This absorbent article for urine comprises a nonwoven fabric having an uneven structure of protruding ridges (21) and grooves (22) alternatingly arranged in a second direction which is perpendicular to a first direction, the protruding ridges (21) being protrusions, in the thickness direction, of a surface sheet (2) on the skin-facing side that extends in the first direction, and the grooves (22) being recessed, in the thickness direction, towards the non-skin-facing side and extending parallel to the protruding ridges (21) in the first direction. The nonwoven fabric has a grammage of 25 g/m² to 50 g/m² and a thickness of 0.7 mm to 2.0 mm. The surface sheet (2) has a high-density part having a relatively high fiber density in the grooves (22) and has, on the skin-facing side surface, a protein dispersion means for dispersing Tamm-Horsfall mucoprotein in urine.

No. of Pages : 19 No. of Claims : 5
(12) PATENT APPLICATION PUBLICATION
(21) Application No.202017009398 A
(19) INDIA
(22) Date of filing of Application: 05/03/2020
(43) Publication Date: 05/06/2020

(54) Title of the invention: SOLID OXIDE FUEL CELL UNIT

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(57) Abstract:
The present invention relates to an improved metal supported solid oxide fuel cell unit, fuel cell stacks, fuel cell stack assemblies, and methods of manufacture.

No. of Pages: 43 No. of Claims: 14
An electronic device is provided. The electronic device includes a memory for storing at least one application, a wireless and/or wired communication interface, and a processor. The processor is configured to detect a display event for the at least one application, in response to the detection of display event, determine whether the electronic device is in a state of being connected to an external output device through the communication interface, when it is determined that the electronic device is in the state of being connected to the external output device, determine whether execution of the at least one application is possible, based on a state of connection with the external output device, and control to display, on the external output device, information indicating whether execution of the at least one application is possible.
| (54) Title of the invention                      | METAL SUPPORTED SOLID OXIDE FUEL CELL UNIT AND ITS METHOD OF MANUFACTURE |
| (51) International classification              | H01M 8/1097, H01M 8/0202, H01M 8/2425, H01M 8/0271, H01M 8/2418          |
| (31) Priority Document No                      | 1713140.0                                                               |
| (32) Priority Date                             | 16/08/2017                                                             |
| (33) Name of priority country                  | U.K.                                                                   |
| (86) International Application No              | PCT/GB2018/052295                                                       |
| Filing Date                                    | 13/08/2018                                                             |
| (87) International Publication No              | WO/2019/034855                                                         |
| (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 an improved metal supported solid oxide fuel cell unit, fuel cell stacks, fuel cell stack assemblies, and methods of manufacture.

No. of Pages : 25 No. of Claims : 15
The invention relates to a powder-metallurgical sintered molybdenum part, in the form of a solid body, which has the following composition: a molybdenum portion of ≥ 99.93% by weight, a boron portion B" of ≥ 3 ppmw and a carbon portion C" of 3 ppmw, wherein the total portion B"+C" of carbon and boron is in the range of 15 ppmw ≤ B"+C" ≤ 50 ppmw, an oxygen portion O" in the range from 3 ppmw ≤ O" ≤ 20 ppmw, a maximum tungsten portion of ≤ 330 ppmw and a maximum portion of other contaminants of ≤ 300 ppmw. The invention further relates to a powder-metallurgical method for producing such a sintered molybdenum part.
A resource search method and a related product. The method comprises: receiving a search request sent by a mobile terminal, the search request comprising a target search word; searching in a preset application library according to the target search word, so as to obtain a target search result set; and when a conversion rate of the target search result set is greater than a first preset threshold, pushing the target search result set to the mobile terminal, and instructing the mobile terminal to present the target search result set in a manner of preset presented content, the preset presented content at least comprising the conversion rate. By means of the method, when the conversion rate of the target search result set is greater than a threshold, a conversion rate of a target search result can be presented, so that a user can learn more about use experience condition of application resources, thereby improving user experience.
A rotary surgical assembly is disclosed. The assembly has a plurality of cutting teeth (216), a hollow dome (200) and a spindle (10). The hollow dome has a pole having a pole axis X, and a cutting surface featuring some of the cutting teeth. The cutting surface includes a curved part (214) and a substantially flat part (212) proximal the pole with an aperture (210) extending therethrough. The spindle has a proximal end (12) and a distal end (14) including a spindle mounting element (16). The spindle mounting element is secured to the dome beneath the substantially flat part of the cutting surface. The spindle mounting element has a cutting tooth (22) that extends distally through the cutting surface's aperture to form one of the said plurality of cutting teeth. A kit, and methods of manufacturing the rotary surgical assembly are described also.
A beverage dispensing system, includes a cabinet with a dispensing station. The cabinet includes therein a refrigeration system, a cooling fluid system, and a refrigerated compartment having therein a cooling system and a beverage source coupled with the dispensing station. The cooling fluid system circulates a cooling fluid through the refrigeration system such that the refrigeration system cools the cooling fluid. The cooling fluid system further normally circulates the cooling fluid through the dispensing station to cool beverage therein. The cooling fluid system directs the cooling fluid from the dispensing station to the cooling system when necessary to cool the refrigerated compartment. A beverage fluid system resides in the cooling fluid system between the beverage source and the dispensing station such that the cooling fluid system cools beverage flowing through the beverage fluid system prior to delivery of beverage to the dispensing station for dispensing therefrom.
Title of the invention: PORTABLE REGULATOR GROUP FOR PROFESSIONAL-TYPE IRRIGATION THROUGH NATURAL BODY ORIFICES AND RELATED DEVICE AND KIT

Abstract:
A portable regulator group (10) for a body irrigation device (1) through a natural body orifice comprises a support frame (11) suitable to be removably secured to a support surface (200). The support frame (11) supports a pressure regulator device (12) suitable to regulate the pressure level of the treatment liquid to be delivered, a flow regulator device (13) operable by the therapist to regulate the flow rate of the water dispensed and a pressure gauge (14) fluidically connected to the flow regulator device (13) downstream thereof. A device (1) for body irrigation comprises the portable regulator group (10), an irrigation cannula (21), and a fluid supply line (3), suitable to supply a treatment fluid to the irrigation cannula (21). A portable kit (1") for professional-type body irrigation comprises the device (1) and a portable collection container (500) of the treatment liquid coming from the treated patient.
INHIBITING UBIQUITIN SPECIFIC PEPTIDASE 30

The present disclosure relates to chemical entities useful as inhibitors of Ubiquitin Specific Peptidase 30 (USP30), pharmaceutical compositions comprising the chemical entities, and methods of using the chemical entities. The chemical entities as disclosed herein can be useful in the treatment of a disease, disorder, or condition involving mitochondrial dysfunction, including neurodegenerative diseases, motor neuron diseases, metabolic disorders, and cancers, among other ailments.
An irrigation cannula (21) for insertion into a natural body orifice and for irrigation with a treatment liquid for anal or vaginal lavages for home use comprises a tubular body (210) having an inner cavity (213), a treatment liquid inlet opening (211) and at least one treatment liquid outlet hole (212) fluidically communicating with the inner cavity (213). Such irrigation cannula (21) is at least partially made of a material having a Shore D hardness of less than 45. A body irrigation device (1) comprises the cannula (21), a fluid supply line (3), and a flow control group comprising a pressure regulator (41) and a manual reset safety device (43) suitable to block the flow of treatment liquid to the cannula group (2) when a predetermined flow threshold is exceeded. A handle kit comprises a cannula (100) handle group having a tubular coupling (84) for the sealed coupling of the cannula and an anchoring seat (85) suitable to house a safety locking element (25) for holding the irrigation cannula (21) anchored to the cannula handle group (100).
**Title of the invention:** IMPROVED LEAD ACID BATTERY SEPARATORS INCORPORATING CARBON

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**Abstract:**
Disclosed herein are improved separators for lead acid batteries, lead acid batteries, systems, vehicles, and/or methods and/or uses for the same. The separators may include a porous membrane and a nucleation additive. In accordance with at least select embodiments, the present disclosure or invention may address current issues or needs, and/or may provide an improved separator and/or battery which overcomes the current issues or problems, for instance, by providing batteries mitigating the formation of dendrites, having improved charge acceptance, and/or having improved cycling performance.

No. of Pages : 56 No. of Claims : 21
This gas sensor is provided with a sensor element (2), a plurality of spring terminals (3) and an insulator (4) for springs. The plurality of spring terminals (3) are configured from wire rods that are bendable. The insulator (4) for springs has: an insertion hole (41) into which a base end part of the sensor element (2) is inserted; and a plurality of holding grooves (42) which are in communication with the insertion hole (41). Each spring terminal (3) has: a hold part (31) which is held within a holding groove (42); and an arm part (32) which is extended from the hold part (31) and is in contact with terminal contact parts (28A, 28B) of the sensor element (2), while being bent with respect to the hold part (31). When viewed from the insertion direction of the sensor element (2) into the insertion hole (41), the bending direction (F) of the arm part (32) of the spring terminal (3) with respect to the hold part (31) is inclined to the outer surfaces of the terminal contact parts (28A, 28B).
An iron-based nanocrystalline alloy powder which has an alloy structure that contains nanocrystalline particles and has an alloy composition represented by compositional formula (1). Compositional Formula (1): Fe100-a-b-c-d-e-f-gCuaSibBcModCreCfNbg In compositional formula (1), 100 - a - b - c - d - e - f - g, a, b, c, d, e, f and g represent the atomic percentages of the respective elements; and a, b, c, d, e, f and g satisfy 0.10 ≤ a ≤ 1.10, 13.00 ≤ b ≤ 16.00, 7.00 ≤ c ≤ 12.00, 0.50 ≤ d ≤ 5.00, 0.001 ≤ e ≤ 1.50, 0.05 ≤ f ≤ 0.40 and 0 ≤ (g/(d + g)) ≤ 0.50.
The present invention relates to the field of biochemistry, more particularly to proteomics, more particularly to protein sequencing, even more particularly to single molecule peptide sequencing. The invention discloses means and methods for single molecule protein sequencing and/or amino acid identification using cleavage inducing agent. Said cleavage inducing agents which are not specific for one particular amino acid, cleave polypeptides step by step from the N-terminus onwards and provide information on the identity of the cleaved amino acids based on the kinetics of said reaction.
A seed transportation system and method for using the same, the seed transportation system comprising a rotatable wheel (1) with at least one seed support (2) for holding a seed, wherein said at least one seed support (2) has one or more fixed support structures configured to restrict movement of the seed in a circumferential direction relative to the rotatable wheel (1) and in a direction away from an axis of rotation (8) of the rotatable wheel (1), and wherein said at least one seed support (2) has an access opening (14) in its radially outer side, said access opening (14) permitting access to the seed for creating an opening in the seed.
The invention relates to a method for reinforcing a part of the outer surface of a wind turbine blade, said method comprises the steps:
i) providing a blade plug having an outer surface resembling the topography of the outer surface of at least a leading portion of at least part of the length of a wind turbine blade; ii) casting a mold of part of the blade plug obtained in step i) in such a way that the topography of an inner surface of said mold corresponds to the topography of part of an outer surface of said blade plug provided in step i); iii) from the mold obtained in step ii), preparing a protective shell by making a casting of the inner surface of said mold; said protective shell is comprising an inner surface and an outer surface, said protective shell is being made from one or more predetermined materials; iv) starting from the topography of the surface of the wind turbine blade; or starting from a blade plug as obtained in step i) preparing an enlarged plug; said enlarged plug thereby comprising an outer surface resembling the topography of the outer surface of at least a leading part of said wind turbine blade; said outer surface of said enlarged plug is having larger dimensions than said outer surface of said blade plug; v) from the enlarged plug obtained in step iv), casting a mounting shell having an inner surface and an outer surface, in such a way that the topography of at least part of an inner surface of said mounting shell corresponds to the topography of part of an outer surface of said enlarged plug; vi) applying an adhesive to at least part of the inner surface of said protective shell and/or to at least part of the outer surface of at least a leading portion of said outer surface of said wind turbine blade; vii) a) applying a force to said mounting shell, and thereby also to said outer surface of said protective shell; wherein said force comprises a force component in a cord direction from the leading surface to the trailing surface of said wind turbine blade; wherein said force additionally comprises a force component in a direction perpendicular to the cord direction and perpendicular to the lengthwise direction of said wind turbine blade; b) allowing said adhesive applied in step vi) to cure, and subsequently removing said mounting shell from said wind turbine blade and from said protective shell.
The present invention relates to a formulation in the form of an aqueous suspension comprising calcium citrate. Said formulation exhibits excellent stability and compliance and finds use in calcium supplementation in subjects in need of such supplementation.
The invention relates to a method for preparing a flour tortilla, comprising:

- preparing a tortilla dough from cereal flour and fat particles, which fat particles at least substantially consist of triglycerides of saturated fatty acids having 8-22 carbon atoms;
- shaping the tortilla dough into a tortilla shape; and
- heating the shaped tortilla dough, thereby obtaining the flour tortilla. The invention further relates to a flour tortilla dough, comprising fat particles dispersed therein, which fat particles at least substantially consist of triglycerides of saturated fatty acids having 8-22 carbon atoms, and to a flour tortilla that can be obtained by a method according to the invention or made from dough according to the invention.

No. of Pages : 23  No. of Claims : 29
A process for preparing a solid pre-catalyst component for use in olefinic polymerization includes dissolving a magnesium chloride in an alcohol and optionally adding water to form a first solution having a water content of about 0.5 mmol water per mol MgCl$_2$ to about 100 mmol water per mol MgCl$_2$; contacting the first solution with a first titanium compound to form the solid pre-catalyst component; and treating the solid pre-catalyst component with a hydrocarbon or halogenated hydrocarbon solvent, optionally containing a second titanium compound.
| (51) International classification | :E03D 1/34, E03D 1/30, E03D 1/14 |
| (31) Priority Document No | :62/542221 |
| (32) Priority Date | :07/08/2017 |
| (33) Name of priority country | :U.S.A. |
| (86) International Application No | :PCT/US2018/045603 |
| Filing Date | :07/08/2018 |
| (87) International Publication No | :WO/2019/032579 |
| (61) Patent of Addition to Application Number | :NA |
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(57) Abstract:
Some embodiments include a fluid control system with an outlet valve assembly, an inlet valve assembly including a venturi inlet valve, and an actuator coupled to the inlet valve assembly. In some embodiments, the actuator can enable a user to control a flush volume of fluid control system. Some embodiments include a moveable float positioned in a chamber of the outlet valve assembly, where the chamber includes a variably-sized upper portion with a volume that is based at least in part on a variable position of the moveable float in the chamber. Some embodiments include a adjustable control valves coupled to an outer surface of the outlet valve assembly and the inlet valve assembly. Some embodiments also include a bellows positioned in and coupled to the variably-sized upper portion. In some embodiments, the bellows are fluidly coupled to the venturi inlet valve and at least one of the control valves.

No. of Pages: 21 No. of Claims: 20
### Title of the invention: **THERMOPLASTIC RESIN COMPOSITION FOR WIRE-COATING AND HEAT RESISTANT WIRE**

#### Abstract:

**[Problem]** To provide: a thermoplastic resin composition having excellent fire resistance and flexibility, and good heat resistance and gasoline resistance without a post-crosslinking treatment; and a wire using the same as a coating material, in particular, a heat-resistant wire for vehicles. **[Solution]** This thermoplastic resin composition comprises: (A) a thermoplastic polymer comprising (a1) 5 mass% to less than 50 mass% of a propylene polymer having a melting point of 150°C or higher, (a2) 10 mass% to less than 60 mass% of an ethylene polymer, (a3) 5 mass% to less than 50 mass% of, for example, a hydrogenated product of a block copolymer of an aromatic vinyl compound and a conjugated diene compound, and (a4) 1 mass% to less than 30 mass% of, for example, an unsaturated carboxylic acid-modified olefin polymer; (B) a softener for nonaromatic rubbers; (C) a metal hydrate; (D) an organic peroxide; (E) an antioxidant; and (F) a coupling agent.

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No. of Pages: 55 No. of Claims: 9
The invention relates to a high-voltage device (1) having a housing (2) and at least one component (3) which is electrically insulated from the housing (2). The at least one component (3) is spaced from the housing (2) and mechanically connected to the housing (2). There is at least one ceramic spacer element (6) between the housing (2) and the at least one component (3). The use according to the invention of the high-voltage device (1) includes heat which is produced at connection elements of the at least one component (3) which is electrically insulated from the housing (2) being transferred from the component (3) via the at least one ceramic spacer element (6) to the housing (2), and being emitted from the housing (2) to the environment.
A communication method and system for converging a fifth generation (5G) communication system for supporting higher data rates beyond a fourth generation (4G) system with a technology for internet of things (IoT) includes intelligent services based on the 5G communication technology and the IoT-related technology. A method by a terminal for transmitting uplink data in a wireless communication system comprises receiving downlink control information for scheduling of uplink transmission in a cell from a base station and transmitting the uplink data to the base station on the supplementary uplink if the indicator indicates the scheduling of the uplink transmission is associated with the supplementary uplink in the cell. The downlink control information includes an indicator indicating whether the scheduling of the uplink transmission is associated with a supplementary uplink in the cell.
A method of forming a 3D graphene material adhered to a surface of a substrate comprises: providing a carbon source on the surface of the substrate; and exposing at least a portion of the carbon source and/or at least a portion of the substrate to a laser beam, thereby converting at least a portion of the carbon source into a 3D graphene material adhered to the surface of the substrate.
The present invention relates to a new liquid composition comprising biological entities having a polymer-degrading activity, a carrier and a solvent that may be advantageously used for the manufacture of a biodegradable plastic product.

No. of Pages : 64 No. of Claims : 28
The invention relates to antibody molecules and antigen-binding portions thereof which bind specifically to CD47 (Cluster of Differentiation 47, also known as integrin associated protein [IAP]). In aspects of the invention, the anti-CD47 antibody molecules and antigen-binding portions thereof specifically bind to human CD47 and cynomolgus monkey CD47. Medical uses of the anti-CD47 antibody molecules and antigen-binding portions of the invention are disclosed. The anti-CD47 antibody molecules and antigen-binding portions of the invention represent modified and optimised binding molecules compared with a VxP037 murine/humanized anti-CD47 antibody described in WO2014/093678A2.
AEROSOL GENERATING SYSTEM WITH MULTIPLE INDUCTOR COILS

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There is provided an aerosol-generating device (100) comprising a housing (110) having a chamber (120) sized to receive at least a portion of an aerosol-forming substrate, the chamber defining a heating zone. The aerosol-generating device (100) also comprises a first coil (131, 441) and a second coil (132, 435) disposed at least partially around, or adjacent to, the heating zone. The first coil is a drive coil couplable to a source of alternating current, and the second coil is a resonant coil of a resonant circuit, the second coil being inductively couplable to the first coil. In use, the coils operate to produce an enhanced magnetic field strength to efficiently heat a susceptor located within that magnetic field.
An injecting apparatus for injecting a fluid under pressure into an associated chamber, the injecting apparatus including: a body (12), a piston (28) movable in the body (12) under the action of fluid pressure in the associated chamber acting from externally against the piston (28), the piston being operable to compress fluid to be injected in a high pressure chamber, the piston being movable against the action of fluid pressure in a control chamber (40) whereby movement of the piston is selectively controllable by controlling the fluid in the control chamber (40), an injector valve and an associated injector orifice (72) in selective fluid communication with the high pressure chamber whereby high pressure fluid from the high pressure chamber can be injected through the injector orifice (72) upon opening of the injection valve (22).
Title of the invention: CURCUMINOID LIQUID COMPOSITIONS FOR FILLING IN HARD CAPSULES

Abstract:
ABSTRACT TITLE: CURCUMINOID LIQUID COMPOSITIONS FOR FILLING IN HARD CAPSULES Obtaining clear solution of curcumin in appropriate surfactants and solubilisers; and to fill it in hard capsules by maintaining the shell integrity and compatibility is a major challenge. The invention in its various aspects provides clear curcuminoid liquid compositions that can be filled in transparent HPMC and hard gelatin capsules. These are the clear curcuminoid liquid compositions having curcumin dry powder or turmeric extract powder containing at least 95% of curcuminoids formulated with the judiciously selected ingredients such as polyethylene glycol 600, diethylene glycol monoethyl ether, caprylocaproyl Polyoxyl-8 glycrides, and low molecular weight polyethylene glycols. The current invention provide clear curcuminoid liquid compositions that can be filled in hard capsules which overcome the challenges faced for conventional formulations. These formulation cans be monitored for any physical instability like clarity colour change, turbidity, deformation of shell etc. via naked observation.

No. of Pages : 21 No. of Claims : 18
The present disclosure relates to renewable energy generation and consumption metering and billing system. The system receives primary data, from one or more sources, comprising end user’s unit wise consumption data, MSEDCL billing data associated with the end user, and Power generation plant data. The system further sorts the primary data based on an analysis of the primary data using one or more checkpoints. Further, the system generates a report based on the verification of the sorted primary data. The report is generated when the sorted primary data matches with the one or more checkpoints. Furthermore, the system analyses the report based on one or more financial checkpoints. The system further generates a payment report upon analysis of the report based on one or more financial checkpoints. The payment report is generated based on receiving payment from the end-user, thereby metering and billing the solar energy generation.
A system and method for waste segregation, energy generation and reporting credits using blockchain technology is disclosed. The system includes a mobile phone with an inbuilt camera for waste imaging through which waste is categorized into various categories, a society bin with enzymatic and electrochemical reaction metals for energy generation from food waste, and a blockchain system. The system uses deep learning and LED application for categorization of waste along with weight sensors and IoT sensors to allocate the credits of waste contribution by individuals and to intimate the waste collector to empty the storage bin. The blockchain system is used to record the details related to the waste contributor. The energy generation is carried out in society bin where the food waste is treated with enzymes and electrochemical reaction metals, which is stored in batteries before it is being dumped into landfills.
Title of the invention: MONITORING QUALITY OF PHARMACEUTICAL MANUFACTURING SITES

Abstract:
MONITORING QUALITY OF PHARMACEUTICAL MANUFACTURING SITES The present invention relates to a level meter measuring the quality health of a pharmaceutical manufacturing site and which predicts 24/7 audit readiness for quality outcomes, wherein outcome is interpreted using tangible data; referred to as a Quality Health Barometer.
The present invention discloses a treated protective fabric comprising an intimate blend of natural fibers, flame-retardant vinylon fibers, para-aramid, polyamide fibers and antistatic fibers having a blend ratio of about 60% to 85% natural fibers, about 10% to 20% flame-retardant vinylon fibers, about 5% to 20% para-aramid, about 5% to 10% polyamide fibers and about 0.4% to 3% antistatic fibers, of total fabric weight about 150 to 250 grams per square meter. The intimate blend is spun through a ring spinning system to form yarns and twill or satin textile woven to form fabric. The fabric is padded with a vat dye and an auxiliary pad dry - pad steam process and dried about 1400 C and garmented with flame retardant trims to form a protective garment.

No. of Pages: 22  No. of Claims: 11
### Title of the invention:
PROVIDENT METHOD OF CELLULASES ENZYMES PRODUCTION BY PENICILLIUM FUNICULOSUM MRJ-16 USING LOW COST MEDIA COMPONENTS

### Abstract:
Abstract Of The Invention PROVIDENT METHOD OF CELLULASES ENZYMES PRODUCTION BY PENICILLIUM FUNICULOSUM MRJ-16 USING LOW COST MEDIA COMPONENTS The present invention relates to a method of cellulases enzymes production by Penicillium funiculosum MRJ-16 using minimum media components and/or low cost media components like cellulose or pretreated lignocellulosic biomass as carbon source and soya flour or defatted soya flour or de-oiled soya cake as nitrogen source. The present invention also provides a method for production of high titer of cellulases and hemicellulases enzymes using Penicillium funiculosum MRJ-16 using minimum media and/or low cost media components.

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No. of Pages : 19 No. of Claims : 7
### Title of the invention: A TAMPING ASSEMBLY

#### International classification
- F42D 1/16

#### Priority Document No
- NA

#### Priority Date
- NA

#### Name of priority country
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- NA

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#### Name of Inventor:
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#### Abstract:
The present disclosure relates to a tamping assembly for a capsule filling machine. The tamping assembly 200A includes a dosing disc 302 with holes, and movable platforms 306 with a set of plungers 308 positioned above the dosing disc 302. The plungers 308 are configured to move in and out of the holes such that the movement of the plungers 308 in the holes compresses a powder covering the dosing disc 302 to form slug. The bottom of the dosing disc 302 includes support members 310 to provide support to the dosing disc 302. The support member 310 also opens a bottom of the holes of the dosing disc 302 to allow the slug to discharge into empty capsules. The absence of gap between dosing disc 302 and support members 310 prevents powder loss/spillage. The rotation of the dosing disc 302 is calibrated with in/out movement of the plungers 308.

No. of Pages: 26  No. of Claims: 14
Title of the invention: DIGITIZATION OF INDUSTRIAL INSPECTION SHEETS BY INFERRING VISUAL RELATIONS

Abstract:
This disclosure relates to digitization of industrial inspection sheets. Digital scanning of paper based inspection sheets is a common process in factory settings. The paper based scans have data pertaining to millions of faults detected over several decades of inspection. The technical challenge ranges from image preprocessing and layout analysis to word and graphic item recognition. This disclosure provides a visual pipeline that works in the presence of both static and dynamic background in the scans, variability in machine template diagrams, unstructured shape of graphical objects to be identified and variability in the strokes of handwritten text. The pipeline incorporates a capsule and spatial transformer network based classifier for accurate text reading and a customized Connectionist Text Proposal Network (CTPN) for text detection in addition to hybrid techniques for arrow detection and dialogue cloud removal.

No. of Pages: 59
No. of Claims: 18
# Patent Application Publication

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**Date of Filing**: 28/11/2018  
**Publication Date**: 05/06/2020  

**Title of the Invention**: SYSTEM AND METHOD FOR OPERATION OPTIMIZATION OF A PROCESS AND AN EQUIPMENT

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| Abstract | This disclosure relates to optimizing an operation of an equipment by a neural network based optimizer is provided. The method include receiving, information associated with at least one equipment instance (j) as an input at a predefined sequence of timestamps; training, a plurality of simulation models for each equipment instance to obtain a function (fj); processing, the external input parameters (et) to obtain a fixed-dimensional vector and passed as an input to obtain an vector (it); generating, a modified (it) from the output vector (it) based on a domain constraint value; computing, a reward (rt) based on (i) the function (fj), (ii) the modified (it), (iii) the external input parameters (et), and (iv) a reward function (Rj); and iteratively performing the steps of processing, generating, and computing reward (rt) for a series of subsequent equipment instances after expiry of the predefined sequence of timestamps associated with a first equipment instance. |

No. of Pages: 40  
No. of Claims: 12
A display device is provided. The display device includes a substrate, and a first sub-pixel and a second sub-pixel disposed on the substrate, wherein the first sub-pixel and the second sub-pixel respectively correspond to two different colors. The first sub-pixel includes a first light-emitting element and a first wavelength conversion layer adjacent to the first light-emitting element, wherein a light emitted from the first light-emitting element passes through the first wavelength conversion layer. The second sub-pixel includes a second light-emitting element and a second wavelength conversion layer adjacent to the second light-emitting element, wherein a light emitted from the second light-emitting element passes through the second wavelength conversion layer. An area of the first wavelength conversion layer and an area of the second wavelength conversion layer are different.
The present disclosure relates to a system and method for heat recovery from low temperature industrial fluid, wherein the heat surplus units are thermally connected to heat converting unit comprising active heat receiving unit and cooling tower to form a heat recovery circuit configured to transfer heat from the heat surplus unit to the heat converting unit by way of heat exchangers.
The present invention provides a panel 100 for an enclosure 200 of a vehicle. The panel 100 includes a first member 10 for holding articles thereon. Further, the first member 10 is swivelable and slidable around and along a longitudinal axis 40 of the first member 10. Also, the first member 10 can be latched along or around the longitudinal axis 40 for latching the panel 100 in various orientations 100a, 100b, 100c, 100d, 100e,.100n. Figure 1

No. of Pages : 22 No. of Claims : 9
Abstract:
This disclosure relates to a distributed state exchanging model for assets of an organization or entity for an identified task in a domain of interest. The model provides a context aware autonomous Internet of things (IoT) based cognitive edge network, wherein each node is aware of the state of the other nodes based on a subscription. The state information is seamlessly updated and maintained by a certifying node of each group. The nodes are grouped based on associated capability definitions such that at least some of the groups form a hierarchy within the cognitive edge network for completing the identified task. Since the network is context aware, a new sub-task towards completing the identified task is autonomously selected by either groups or by the nodes based on the context thereby obviating a need for centralized scheduling. [To be published with FIG. 3]
ABSTRACT TITLE: AN ARRAY OF MATCHED DEVICES FOR HIGH RESOLUTION HIGH SPEED DIGITAL TO ANALOG CONVERTERS

The present disclosure relates to the field of data converters. The data converters (Digital-to-Analog Converters and Analog-to-Digital converters) typically consist of large capacitor and transistor arrays that are highly susceptible to systematic errors. The present disclosure discloses an array of systematic effect resilient matched devices for high resolution high speed data converters. Each of the devices is split into an integral number N of identical units connected in parallel. The identical units are spatially intermingled over an array having N rows and N columns, in a way that every column and every row of the array includes exactly one unit of all the devices and the sum of the systematic errors over the spatially distributed units is same for all devices, in order to compensate the systematic errors. A placement methodology along with one track routing solution for complete compensation of the systematic errors is also provided.
**Title of the invention**: AN AIRVENT FOR A VEHICLE INTERIOR

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<td>B32B 37/00 B60H 1/00</td>
<td>FAURECIA INDIA PRIVATE LIMITED</td>
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<tr>
<td>Address of Applicant: Plot No.T-187, Pimpri Industrial Area</td>
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<td>1(B.G. Block), Behind Bhosari Police Station, Bhosari, Pune, 411026 MH. India Maharashtra India</td>
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**Address of Applicant**: Plot No.T-187, Pimpri Industrial Area

**Name of Inventor**: SIDDIQUI, Firoz, GUPTA, Animesh

**Abstract**: The present invention is to provide an airvent for a vehicle interior. The airvent includes a housing having an upper chamber and a lower chamber. The upper chamber has an inlet to ingress the air in the housing and the lower chamber having an outlet to egress the air towards the vehicle interior. At least an opening is configured between the upper chamber and the lower chamber for passage of air from the upper chamber to the lower chamber. Further, a guiding member is pivotally or slidably configured in the upper chamber or the lower chamber for changing the direction of the air flow into the vehicle interior. Figure 1

**No. of Pages**: 30  **No. of Claims**: 10
Title of the invention: SYSTEMS AND METHODS FOR GENERATING AN AUTONOMOUS ROBOTIC ACTION FRAMEWORK

Abstract:
Systems and methods for generating an autonomous robotic action framework are provided. Traditional systems and methods fail to provide for a unified modeling framework for autonomous robots to integrate robotic entities or elements into complex robotic interactions or deployments. The embodiments for the disclosure generates the autonomous robotic action framework by modeling, by one or more hardware processors, a plurality of robotic knowledge bases by implementing a graph database querying technique; generating, based upon the modeling, a plurality of robotic action plans by implementing a knowledge base querying technique; performing, via a runtime execution module, a runtime simulation and a performance analysis of each of the plurality of robotic action plans by implementing the graph database querying technique; and implementing, via an adaptation monitoring module, one or more integrity constraints on the runtime simulations for generating the autonomous robotic action framework.

No. of Pages: 47 No. of Claims: 18
Applications such as behavioral analysis require huge amount of data analysis. However, as enormous amount of data is available from various sources (such as internet), a user may find it difficult to find appropriate data and may further have trouble identifying relationship between different theories/ontologies that may be present in the data being analyzed. This disclosure relates generally to data analysis and more particularly to a method and a system for data processing and data extraction. The system collects a plurality of reference papers and further classifies the collected plurality of reference papers as relevant and irrelevant. Each of the “relevant™ reference papers is further processed by the system, during which the system identifies relevant sections from each document and further processes data in the relevant sections to extract required information and also to identify relationship between different extracted information, which is further used to create domain dictionaries and ontologies.
METHOD AND SYSTEM FOR ESTIMATING CORROSION INHIBITOR CONCENTRATION USING A MULTI-ELECTRODE ARRAY SENSOR

There is a demand for low-cost robust method to detect corrosion for estimating corrosion inhibitor (CI) concentration sensing. This disclosure herein relates to method and system for estimating corrosion inhibitor (CI) concentration using a multi-electrode array sensor. The method initially obtains a plurality of electrochemical signals using the multi-electrode array sensor from the corroding environment. Further, the plurality of electrochemical signals are analyzed to obtain a plurality of parameters. Further, the method analyzes a plurality of features from the plurality of parameters for estimating the corrosion inhibitor (CI) concentration using a trained machine learning model. The method is capable of estimating the corrosion inhibitor concentration of any unknown liquid using the regression model and the classification model. [To be published with FIG. 3]
SYSTEM FOR CONTINUOUS EXTRACTION OF PURE WATER FROM FEEDS WITH RESATURATION AND REUSE OF DRAW

The present invention relates to a Forward Osmosis-based system and process for continuous extraction of pure water directly into industrial starting materials through their use in the form of draw solutions with recycle and reuse of minor portion of the outlet draw in subsequent cycles while the major portion is made available for industrial use. The invention helps provide a practical and energy efficient alternative to processes such as RO, and with reduced fouling problem, where the ultimate objective of RO is to supply pure water as dissolution medium. Figure 1
The invention provides a system (200) for selecting a time-slot from a plurality of time-slots for scheduling an event among a plurality of participants. An event scheduling request is transmitted to the plurality of participants by an organizer of the meeting using electronic messaging application (208), the event scheduling request including a plurality of time-slots proposed by the organizer. Upon receiving the event scheduling request, each participant at the respective participant™s computing device is enabled to provide a selection input via time-slot selection input module (210) comprising one or more time-slots of the plurality of time-slots. A selection input of an immediately succeeding participant is verified using time-slot verification module (212) if the selection input of the immediately succeeding participant comprises time-slots from a selection input of an immediately preceding participant. Thereafter, the last participant of the plurality of participants is enabled to select at most one time-slot from the selection input of the immediately preceding participant, using time-slot negotiator module (218).
Title of the invention: MOSQUITO REPELLENT COMPOSITIONS AND PROCESSES OF PREPARATION THEREOF

Abstract:
There is provided insect repellent fumigant compositions and processes of preparation thereof. The said insect repellent compositions can either be in the form of incense sticks or joss sticks. Further the products of this invention provide quick relief from insects and particularly flying insects such as mosquitoes, flies, fleas and the like. The products of this invention are eco-friendly, cheap and do not cause any side effects to human beings even after prolonged exposure.

No. of Pages: 11 No. of Claims: 2
A system for automatic permission management in different collaboration systems is described in the present invention. The Rights Management system enabled with the present invention provides a "detection component" or "connector" that will identify the user who is sharing the protected document and list of recipients who need to be given access to it. The content sharing systems include but are not limited to shared local or network folders or messaging tools like email or chatting applications, and collaboration tools like SharePoint, Box, Dropbox, Google Drive etc. The permissions for users are added to the document/mail as and when it flows through different collaboration or distribution systems, thus enabling the business users to access the document without any disruption in their normal business workflow.
The present invention relates to equipment capable of producing compressed air through the weight of vehicles through manually operated air pumps and balanced crankshafts working separately or in combination and placed under speed breakers on the roads or similar transport surface, and on plain surface without speed breakers.
The present subject matter discloses an advanced direct shift mechanism with interlock for part time mechanical shift transfer case. The mechanism has innovative direct shift scheme with minimum linkage joints for improved shift efficiency and reduced shift efforts. Further, there is innovative interlock for 4L mode shifting and provides safer operation in 4L with deeper ratio. In addition, the present subject matter has the unique positive stoppers at each gate for improved shift feel. Moreover, the selection return spring (20) is a multi-function part to provide the spring tension for selection as well as it acts as damper in all positions for reduced vibrations at gearshift knob.

No. of Pages : 16 No. of Claims : 8
The present invention relates to improved silk articles. In particular, the present invention relates to a process for treatment of an article comprising silk to improve chemical, thermal, mechanical and physical properties thereof. The process includes the steps of providing a silk article, preparing a mixture comprising a cross-linker and a solvent system, padding the silk article with the mixture, drying the padded silk article, introducing the dried article in an air-tight container, creating an inert atmosphere within the air-tight container, and irradiating the dried article with the air-tight container with a predetermined dosage of electron-beam radiation to obtain the treated article. The process of the present invention is economic and provides a silk article with enhanced physical, chemical, thermal and mechanical properties, requires reduced cross-linking time, temperature for cross-linking, and use of harmful chemical reagents.
This disclosure relates generally to pre-emptive product selection from an inventory. The proposed pre-emptive product selection is performed by a combination of predictive analysis and learning techniques in multiple-stages. The proposed multi-stage pre-emptive product selection include short-listing product types for pre-emptive selection, further an order arrival rate is estimated for each short-listed product, and finally the quantity of product of each type to be pre-emptively selected is iteratively optimized and estimated. The pre-emptively selected product is kept ready at a `pre-selection area™ from where it can be immediately dispatched/shipped to a destination upon receiving an online line. Hence the proposed pre-emptive selection techniques, also facilitates a product order received after a normal booking deadline, as the product is already pre-emptively selected and ready to be dispatched. [To be published with FIG.2]
ABSTRACT AN APPARATUS FOR PLAYING A GAME

The invention relates to the field of apparatus for playing games and the present disclosure envisages an apparatus for playing a game. The apparatus (100) comprises a support assembly (160), a board (110), and a rotating member (108). The board (110) is disposed on the support assembly (160). The rotating member (108) is disposed between the board (110) and the support assembly (160). The rotating member (108) is configured to be rotated upon rotation of the board (110) to allow players to take their turns without shifting their actual positions. The apparatus (100) does not limit the number of players playing the game and is portable.
This disclosure relates to modeling an Agile team structure such that it aligns with Agile principles, achieve synergy and deliver intended business benefits. Current approach to modelling depends on unproven manually arrived patterns that do not predict benefits, are based on limited number of experts utilizing heuristics from personal experience. Once a working model is derived, it is refined over time which is a slow process with no verification of its effectiveness. In accordance with the present disclosure, scalable and customizable location independent Agile delivery models can be generated using a palette based user interface such that constraints are optimized. A pre-configured meta-model is chosen and the location independent model is generated given the constraints. A compliance indicator provides a degree of compliance with the Agile principles. The model is then evaluated using machine learning models that have been trained by leveraging a knowledge base of successfully implemented Agile models.
(51) International classification :F41H1/02

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(33) Name of priority country :NA
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(57) Abstract :
A protective fabric comprises at least 60% w/w meta aramid fibers, at least 3% w/w para aramid fibers, at least 10% w/w modacrylic fibers, at least 10% w/w permethrin contained cellulosic fibers, and 0% to 2% w/w antistatic fibers. The fabric has a moisture vapour transmission rate (MVTR) of more than 2000 gm/m2/Day when tested pursuant to ASTM E-96-05. The protective fabric complies with Mosquito proof test when tested pursuant to TL-8305-0331 developed by the German Armed Forces.
Title of the invention: SYSTEMS AND METHODS FOR AUTOMATING INFORMATION EXTRACTION FROM PIPING AND INSTRUMENTATION DIAGRAMS

Abstract:
Systems and methods for automating information extraction from piping and instrumentation diagrams is provided. Traditional systems and methods do not provide for end-to-end and automated data extraction from the piping and instrumentation diagrams. The method disclosed provides for automatic generation of end-to-end information from piping and instrumentation diagrams by detecting, via one or more hardware processors, a plurality of components from one or more piping and instrumentation diagrams by implementing one or more image processing and deep learning techniques; associating, via an association module, each of the detected plurality of components by implementing a Euclidean Distance technique; and generating, based upon each of the associated plurality of components, a plurality of tree-shaped data structures by implementing a structuring technique, wherein each of the plurality of tree-shaped data structures capture a process flow of pipeline schematics corresponding to the one or more piping and instrumentation diagrams.

No. of Pages: 44 No. of Claims: 20
Title of the invention: METHOD AND SYSTEM FOR FACE DETECTION AND RECOGNITION IN BIG DATA ENVIRONMENT

Abstract:
Face detection and face recognition are being used widely for various applications. The existing methods for face detection and recognition are complex and time consuming. Further it involves huge amount of data due to which it is difficult to handle on traditional environment. A method and system for face detection and recognition of a person in an image in a big data environment has been provided. The method involves building an exhaustive dynamic external database on big data platform based on web-crawling & CNN techniques. Further, it is using deep learning based techniques for detecting and recognizing face of the person and collecting the data of the person from various web as well as internal sources and then showing his linkages with incidence of interest in which the person was involved, entities of interests i.e. his relatives and associated organization.

No. of Pages: 19
No. of Claims: 9
This disclosure relates generally to a system and method to optimize a plurality of validations in an ETL workflow. The ETL workflow implements all types of validations expecting that there is erroneous data and that the validation would fail. Therefore, the actual execution of validation is made conditional based on a switch that can be turned on (validation is performed) or off (validation is skipped). The output of each instance of execution is recorded continuously at a repository. The means of identifying a specific validation that is eligible for being turned off requires a thorough analysis of all validations performed so far in the history. The thorough analysis includes how many times a validation has been performed on a particular field and to calculate an exposure value which is compared with a threshold value of exposure and determine specific validation that is eligible to be turned off. [To be published with FIG. 2(a) & 2(b)]
Various methods are using SQL-based data extraction for extracting relevant information from images. These are rule-based methods of generating SQL-Query from NL, if any new English sentences are to be handled then manual intervention is required. Further becomes difficult for non-technical user. A system and method for extracting relevant from the images using a conversational interface and database querying have been provided. The system eliminates noisy effects, identifying the type of documents and detect various entities for diagrams. Further a schema is designed which allows an easy to understand abstraction of the entities detected by the deep vision models and the relationships between them. Relevant information and fields can then be extracted from the document by writing SQL queries on top of the relationship tables. A natural language based interface is added so that a non-technical user, specifying the queries in natural language, can fetch the information effortlessly. To be published with FIG.1
Title of the invention: A BOARD CONFIGURED WITH INTERACTIVE COMPONENTS

Abstract:
An aspect of the present disclosure provides a system that includes a board coupled with a radio-frequency identification (RFID) to identify position of one or more objects placed on the board; an input unit comprising one or more sensors to receive input information regarding movement of at least one object of said one or more objects from a user; and a processor coupled with a memory, the memory storing the instructions executable by the processor to: receive input information from the input unit and RFID signals from the RFID; process the input information to determine a desired position of the at least one object based on a set of pre-defined rules; and provide actuating signals to an actuator, wherein the actuator moves the at least one object to the desired position. Aspects of the present disclosure can be utilized to play a variety of board games.
The present invention discloses a process of preparation of monobasic lead salt of 2,4 Di Nitro resorcinol, using trichloro ethylene as an alternative inert media to carbon tetrachloride, wherein process of preparation of monobasic lead salt of 2,4 Di Nitro resorcinol involves nitrosation of resorcinol followed by alkaline oxidation of 2,4 Dinitro Resorcinol in which Trichloro ethylene is used as inert media in the reaction process, followed by purification of pure 2,4 Dinitro Resorcinol.
Title of the Invention: DRUG LOADED COLLAGEN PUNCTAL PLUG

Abstract:
The present invention provides a novel interconnected porous punctal plug using the cryogelation technique. The hydrogels have been prepared using zero length crosslinker EDC/NHS.

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No. of Pages: 21 No. of Claims: 5
Disclosed is an electronic device. The electronic device may include a light-receiving sensor and a display panel and the light-receiving sensor may be disposed below a predetermined area of the display panel. The display panel may include: a pixel layer including at least one first pixel disposed in the predetermined area, and at least one second pixel disposed outside the predetermined area; and an electrode layer including at least one first electrode electrically connected to the at least one first pixel and disposed in the predetermined area, and at least one second electrode electrically connected to the at least one second pixel and disposed outside the predetermined area. The electrode layer may be disposed below the pixel layer, and the first electrode may have a shape different than a shape of the second electrode.
Disclosed are recombinant chimeric proteins of human epidermal growth factor that has ability to show both adjuvant activity and anti-tumorigenic property. The present invention discloses the use of recombinant chimeric protein as a therapeutic vaccine composition either in combination with targeted therapies with certain drugs that inhibits signal transduction mechanism for cell proliferation such as tyrosine kinase inhibitors or alone in mice induced tumor model and proved to reduce the progression of a tumor, while considerably increasing the survival period.
Title of the invention : A LAMBDA SENSOR ARRANGEMENT IN AN EXHAUST CONDUIT OF A VEHICLE

Abstract :
The various embodiment herein provides a lambda sensor arrangement 120 in an exhaust conduit 104 of a vehicle 100. The lambda sensor 110 is positioned within a predetermined distance 122 from an exhaust port 116 of an engine 102 to prevent contact with condensed water in the exhaust conduit 104. The arrangement 120 enables instant activation of the electrical heater in order to bring the lambda sensor 110 to a working temperature, upon detection of a start of the engine 102 of the vehicle 100. The arrangement 120 prevents any damage of a heated lambda sensor 110 by contact of low temperature condensed water. The arrangement 120 facilitates lower exhaust emissions due to quicker closed loop operation of the engine 102, which also minimizes impact of condensed water on the lambda sensor 110.

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(54) Title of the invention : POLYMORPHS OF N-METHYL[TRANS-4-(METHYL-7H-PYRROLO[2,3-D]PYRIMIDIN-4-YLAMINO)CYCLOHEXYL]METHANESULFONAMIDE OR ITS PHARMACEUTICALLY ACCEPTABLE SALTS AND THEIR PROCESSES FOR THE PREPARATION

(51) International classification :C07D0487040000, C07C0303220000, C07D0475000000, C07C0309240000

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(33) Name of priority country :NA
(86) International Application No :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number:NA
(62) Divisional to Application Number :NA

(57) Abstract :
Abstract Title of the invention: Polymorphs of N-methyl[trans-4-(methyl-7H-pyrrolo[2,3-d]pyrimidin-4-ylamino)cyclohexyl]methanesulfonamide or its pharmaceutically acceptable salts and their processes for the preparation. The present invention relates to polymorphs of N-methyl[trans-4-(methyl-7H-pyrrolo[2,3-d]pyrimidin-4-ylamino)cyclohexyl]methanesulfonamide or its pharmaceutically acceptable salts and their processes for the preparation. N-methyl[trans-4-(methyl-7H-pyrrolo[2,3-d]pyrimidin-4-ylamino)cyclohexyl]methanesulfonamide is represented by the following structural formula-1: Formula-1

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No. of Pages : 23 No. of Claims : 9
ABSTRACT SECURING DEVICES IN INDUSTRIAL CONTROL SYSTEMS USING HONEYPOT TRANSFORMATIONS

An industrial control system includes a plurality of devices in a redundant configuration. On detection of a security threat from an attacker device (116) at a device (300) in the industrial control system, operations of the device (300) are handed over to a redundant device while maintaining communication with the attacker device. The device (300) is transformed into a honeypot. For the transformation, information of a current state of the device (300) is stored in a secure disk partition (310) of the device (300) and honeypot software (324) and honeypot datastore (326) are loaded from a second disk partition of the device while retaining network parameters. The device is then operated as a honeypot that simulates the operations of the device with spoofed data from the honeypot data store and communicates with the attacker device using the retained network parameters. <<To be published with Fig. 4>>
(12) PATENT APPLICATION PUBLICATION

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(54) Title of the invention : IMPROVED PROCESS FOR THE PREPARATION OF 3A,7A-DIHYDROXY6A-ETHYL-5-CHOLAN-24-OIC ACID

(51) International classification

: A61K0031690000, C07D0209120000, C07C0045590000, C07C0307000000, C07C0211270000

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2) Sajja Eswaraiah
3) Gogulapati Venkata Panakala Rao
4) Nagunuri Ganapathi Chary

(57) Abstract :

Abstract Title of the Invention: Improved process for the preparation of 3a,7a-dihydroxy6a-ethyl-5-cholan-24-oic acid. The present invention relates to an improved process for the preparation of 3a,7a-dihydroxy6a-ethyl-5-cholan-24-oic acid compound of formula-1, represented by the following structural formula: Formula-1

No. of Pages : 22 No. of Claims : 6
Title of the invention: IMPROVED PROCESS FOR THE PREPARATION OF  
(5S,8S)-8-[[1R]-1-[3,5-bis(trifluoromethyl)phenyl]ethoxy[methyl]-8-phenyl-1,7-diazaspiro[4.5]decan-2-one hydrochloride

Abstract:
Improved process for the preparation of (5S,8S)-8-[[1R]-1-[3,5-bis(trifluoromethyl)phenyl]ethoxy[methyl]-8-phenyl-1,7-diazaspiro[4.5]decan-2-one hydrochloride. The present invention relates to an improved process for the preparation of Rolapitant and its pharmaceutically acceptable salts and is represented by the following structural formula. 10 Rolapitant hydrochloride wherein X = 0, 1, 2, 3, 4 ;10

No. of Pages : 24 No. of Claims : 10
(54) Title of the invention : SYSTEM AND METHOD TO NAVIGATE AND LOCATE A DESTINATION WITHIN A PRE-DEFINED GEOGRAPHICAL AREA

(57) Abstract :
System and method for navigating and locating a destination within a pre-defined geographical area is provided. The system includes a plurality of sensing means configured to sense a location, a memory module comprising information associated with the deployment of the plurality of sensing means, location of a plurality of places located within the pre-defined geographical area, a sensing module locates at least one sensing means in proximity with the electronic device associated with a user, a control module retrieves an input of a start point and a destination point, representative of the pre-defined geographical area from the user. The control module communicates with the plurality of sensing means and thereby generates an optimized path connecting start point and a destination point. The control module accurately navigates the user in real-time. A display module displays the optimized path representative of the destination point within the pre-defined geographical area. FIG. 1
A method and system for securing information of Payer 21 and Payee 15 and protecting the privacy of the participating entities of a transaction from all participants involved in a digital payment transaction viz. banks, payment service providers, merchants. The method involves an abstraction called Payment Tokens 8, wherein the payer converts their fiat money/monetary value to a Payment Token 8 of equivalent value through Banks (generated cryptographically as a soft instrument) and uses it for payments routed through a payment router 14. The Payee 15 claims the tokens through a payment router 15 in the system. The identification of the payer and Payee 15 are masked with a pseudo-id 17. The Payment router 14 further anonymizes the payment by interacting with its peers in the network and seeks for swap for transactions of similar denominations 28 to be effected to different Payees 15. The payment routers 14 in the network maintain only the current ownership information of Payment Tokens 8 in the system and collaborate among them for effecting the transaction.
The present invention relates to a process for the preparation of high pure Eribulin and Eribulin Mesylate. The present invention involves preparation of high pure Eribulin and its mesylate salt involving chiral acid addition salts of Eribulin.
(54) Title of the invention: RECONFIGURABLE V/UHF FRONT END RADIO FREQUENCY TRANSCEIVER SYSTEM

(51) International classification : H04B0001000000, H04B0001400000, H04B0001280000, H04B0001120000, H04B0001040000

(31) Priority Document No : NA
(32) Priority Date : NA
(33) Name of priority country : NA
(86) International Application No : NA
    Filing Date : NA
(87) 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) M/s. Bharat Electronics Limited
Address of Applicant: Corporate Office, Outer Ring Road, Nagavara, Bangalore, Karnataka, India, Pin Code - 560 045. Karnataka India

(72) Name of Inventor :
1) T., Ranjith
2) RATH, Subhalaxmi
3) A., Harikrishna

(57) Abstract:
A V/UHF front end radio frequency transceiver system (100) includes a transmitter front end sub-system (106) operatively coupled to a transmitter (102) to down-convert a first band of output high radio frequency from the transmitter to a second band of working low radio frequency; a receiver front end sub-system (108) operatively coupled to a receiver (104) to up-convert the input second band of working low radio frequency into the first band of output high radio frequency; and a local oscillator (110) to generate a reference frequency (fr), wherein, the system (100) generates intermediate frequencies, such that the intermediate frequencies are within the second band low radio frequency.

No. of Pages : 24 No. of Claims : 11
(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application : 28/11/2018
(43) Publication Date : 05/06/2020

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<td>1) ANTONY AROUL RAJ V</td>
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<td>2) RAJASINGH S</td>
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<td>4) PONSURYA M</td>
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<td>5) PRABHU SHANKAR P</td>
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No. of Pages : 26 No. of Claims : 5
Title of the invention: A METHOD AND SYSTEM FOR MONITORING AND MAINTAINING CONDITION OF A SWITCHGEAR

Abstract:
Embodiments of present invention discloses a condition monitoring system and method for monitoring and maintaining condition of a switchgear. The method comprises receiving data from each sensor of a plurality of sensors of the switchgear, and comparing the received data with stored data of the switchgear. Based on the comparison, one or more states for the switchgear are determined from a plurality of states. The method further determines a control operation for the switchgear based on the determined one or more states. The control operation is performed for maintaining the condition of the switchgear. [Figure 1]
**Title of the invention**: DEVELOPMENT OF INDUSTRIAL NITROCELLULOSE 1/2 SECOND

| International classification | :C08L1/18 |
| (31) Priority Document No | :NA |
| (32) Priority Date | :NA |
| (33) Name of priority country | :NA |
| (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 |

| Name of Applicant | 1)THE GENERAL MANAGER, CORDITE FACTORY ARUVANKADU |
| Name of Inventor | 1)(1) R. ASHOK KUMAR, JUNIOR WORKS MANAGER |

**Abstract**: The invention is in the field of Nitrocellulose manufacture. In particular, the invention is in industrial nitrocellulose for civil trade purpose. Industrial Nitrocellulose with Nitrogen content of 11.80 - 12.20 % and Viscosity 1.20 - 1.55 centistokes has been developed as per the civil trade requirements. After this invention, Cordite Factory Aruvankadu has successfully established the manufacturing process of industrial NC VI second with ethanol wet and butanol i wet. Note: - Repeat boxes in case of more than one entry. To be signed by the applicants) or by authorised registered patent agent. Name of the applicant should be given in full, family name in the beginning. Complete address of the applicant should be given stating the postal index no./code, State and country. Strike out the column which is/are not applicable.

No. of Pages : 10 No. of Claims : 5
Title of the invention: DEVELOPMENT OF SPORTING POWDER ARUVANKADU-SPA III

Abstract:
ABSTRACT; The invention is in the field of manufacturing of propellant. In particular, the invention is in double base propellant powder suitable for 12 bore ammunition, used by the Indian Air Force for training purpose and civilians for shooting competitions. The double base propellant powder has been developed with 35% porosity to achieve ballistic parameters accurately, since it is used in Indian Air Force and shooting competition, where more accuracy and consistency is required. A new chemical composition and method of achieving the porosity have been developed from the past experience in Cordite Factory Aruvankadu, in the held of solid propellant with solvent route. After these inventions, the propellant powder with required porosity produced is successfully meeting the ballistic parameters. Note: - Repeat boxes in case of more than one entry. To be signed by the applicant(s) or by authorised registered patent agent. Name of the applicant should be given in full, family name in the beginning. Complete address of the applicant should be given stating the postal index no./code, State and country. Strike out the column which is/are not applicable.

No. of Pages : 9 No. of Claims : 4
(54) Title of the invention : METHOD FOR DETERMINING LOCATION OF USER EQUIPMENT (UE) USING PORTABLE PSEUDO BASE STATION IN LTE

| (51) International classification | H04W0024100000, H04W0036000000, H04W0064000000, H04W0072040000, H04W0036300000 |
| (31) Priority Document No | NA |
| (32) Priority Date | NA |
| (33) Name of priority country | NA |
| (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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Address of Applicant : 2901 Rachel St E #30, Montreal, QC H1W 4A4, Canada Canada

(72) Name of Inventor : 1) Ashutosh Samal

(57) Abstract :
ABSTRACT Method for determining location of user equipment (UE) using portable pseudo base station in LTE. Embodiments herein provide a method for determining a location of a user equipment (UE) using a portable pseudo base station. The method includes establishing, by the portable PBS, a RRC connection with the UE associated with a main base station (MBS), wherein signal strength between the UE and the portable PBS is stronger than a signal strength between the UE and the MBS. Further, the method also includes receiving, by the portable PBS, an intra frequency measurement report from the UE and determining, by the portable PBS, the location of the UE using the intra frequency measurement report. FIG. 3

![Diagram](image-url)

FIG. 3

No. of Pages : 61 No. of Claims : 29
The present invention relates to a synthetic medium for sperm penetration and method thereof. Further the method relates to a synthetic media for determination of the distance travelled by sperms, especially bovine sperms in the synthetic media and correlating it to bovine sperm fertility. Particularly the present invention relates to an in vitro method for assessment of the bovine sperm fertility using a synthetic media of viscosity 270-300cP, comprising Methyl cellulose that mimicks the cervical mucus of female members or partners of bovine species.

No. of Pages : 25 No. of Claims : 6
A TWO OR THREE-WHEELED VEHICLE

The present invention relates to a step-through saddle-ride type two or three-wheeled vehicle and more particularly to a handlebar cover assembly for the step-through saddle ride-type vehicle. The two or three-wheeled vehicle (100) includes a handlebar assembly (109), a handlebar cover assembly (200) comprising a front handlebar cover (202) and a rear handlebar cover (201), the handlebar cover assembly (200) includes a top handlebar cover (203) configured to support at least one display device (205), a first top cover wall (203a) is configured to support at least one accessory (204) and said second top cover wall (203b) includes an accommodating portion (206) configured to receive said at least one display device (205). <To be published with Figure 3(b)>
The present subject matter relates to an internal combustion engine (101). The internal combustion engine (101) includes a crankcase (205). A crankshaft (208) is rotatably supported by the crankcase (205) through one or more bearings, and the one or more bearings includes a first bearing (212). The internal combustion engine (101) includes a suppressor member (300, 400) adapted to apply pressure selectively on the first bearing (212). The suppressor member (300) is a single integrated member that can be compactly mounted to the crankcase (205). The internal combustion engine (101) of the present subject matter has reduced noise and improved life of the bearing(s). «To be published with Fig. 5 »
The present invention comprises of developing a multiplex PCR (MPCR) assay for the simultaneous authentication of processed crab meat products belonging to Portunus pelagicus and P. sanguinolentus, designing a species specific primer from the mitochondrial cyt b and 16S rRNA regions of the targeted crab species. The present invention is very specific, as the simultaneous detection of both the species in an adulterated crab products, designed primer sets amplified only targeted species. The assay was rapid, as it authenticated the commercial crab products prepared from P. pelagicus and P. sanguinolentus within two hours. The method is also applicable for processed crab products. The method can be used for the authentication of crab products by simple PCR instead of further analysis of PCR products by RFLP or SSCP. The method finds applicable in food quality control laboratories and regulatory authorities to prevent seafood fraudulence in trade.

No. of Pages : 16 No. of Claims : 5
Title of the invention: SOUND ENERGY OF BASIC NOTES BY R. VELMURUGAN

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Abstract:
Sound or music is in different seven form ie sa,ri,ga,ma,pa,tha,ni and sa. R.Velmurugan developed a method to find energy associated with sa,ri,ga,ma,pa,tha,ni. Photon energy is calculated by Max Planck method \( E = hf_{\text{frequency}} \). Similarly, R.Velmurugan developed a method for sound energy \( E = 8.5E^{-6}f_{\text{frequency}} \). Sound energy constant was determined by R.Velmurugan.

No. of Pages: 5 No. of Claims: 2
The device of present invention relates to the process of preparation of traditional Indian breakfast namely Dosa, Idli and Rasam/Sambar comprising of subassemblies namely Dosamaker (200), Idlimaker (300) and Rasam/Sambar-Maker (400) to automate the process of preparation of the said delicacies, which is illustrated in FIG 2. The device completely automates the entire process of preparation of dosa and idli right from the first-step involving grinding of raw materials. The present invention consists of grinding unit (101,102) which transforms the raw material into batter, which gets dispensed to subassemblies through motorized valves (104) for preparation of IdU or Dosa depending upon the status of the selector switch. Furthermore, the device being compact in size which makes it ideal for domestic use is operated by a Programmable Logic Controller (501) as illustrated in FIG 14, controls the switching of all the electro-mechanical components in the said subassemblies through relays.

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Address of Applicant: Manipal Academy of Higher Education (MAHE), Madhav Nagar, Manipal-576104 Karnataka India

Name of Inventor:
1) Dr. Vidya S Rao
2) Mr. K Praveen Shenoy
Abstract: Pharmaceutical Composition Comprising Brexipiprazole and Process for Preparation Thereof

The present invention relates to a pharmaceutical composition comprising brexipiprazole or a pharmaceutically acceptable salt thereof and at least one pharmaceutically acceptable excipient, wherein particle size of brexipiprazole or pharmaceutically acceptable salt thereof is D90 from about 10µm to about 40µm, particularly D90 is in the range from about 15µm to about 25µm and process of preparation of said pharmaceutical composition and its use for the adjunctive treatment of major depressive disorder (MDD) and treatment of schizophrenia.

No. of Pages: 27 No. of Claims: 10
The invention relates to remote activation of a communication module of a self-powered intelligent electronic device (TED). The IED controls an auto recloser mounted on an electric pole of a power distribution network. A controller of the IED receives an activation signal from a trigger source, positioned within a predefined distance from the IED, through an optical sensor to activate the communication module. A control signal is generated, upon the controller of the IED detecting the activation signal, for powering the communication module from a power supply module. The power supply module is enabled to power the communication module for a duration controlled with the control signal. The communication module is activated for communicating a plurality of data associated with the IED to a remote communication device upon enabling the power supply module for the communication module.
PROTOCOL-INDEPENDENT MULTICAST DESIGNATED ROUTER (PIM-DR) FAILOVER IN A MULTI-CHASSIS ENVIRONMENT

Systems and methods are provided for performing a node-level redundant failover-type process with respect to the protocol-independent multicast (PIM) functionality in a multi-chassis environment. When a PIM-related failure occurs on a first network device, but otherwise it remains operational, a second network device is configured to assume responsibility for performing PIM data traffic forwarding. Upon detecting the PIM-related failure of the first network device, the second network device sends a PIM-DR failover event signal to the second network device’s PIM module by loading multicast route states used by the first network device into the PIM data traffic forwarding hardware of the second network device. Upon the second network device assuming responsibility, the first network device disables its PIM data traffic forwarding functionality.
A METHOD TO HANDLE I/O CONCURRENCY FOR CACHED DATA

Abstract:
METHOD FOR HANDLING INPUT/OUTPUT CONCURRENCY FOR CACHED DATA ABSTRACT A method for handling I/O concurrency for cached data is disclosed. The method includes identifying a write through cache policy from a plurality of cache policies, wherein identifying the write through cache policy includes determining the Input/output request; determining the Input/output request includes determining a write Input/output request, determining a read Input/output request. FIG. 1

No. of Pages: 31
No. of Claims: 8
The present disclosure provides a power amplifier module capable of operating at L-band radio frequency (RF) over the full operating range. The amplifier module comprises: an RF driver unit; one or more driver modules; one or more power amplifiers; and a combiner unit. The one or more power amplifiers successively amplify the input RF signal to achieve a full broadband operation. The power amplifier module further comprises a health controlling and monitoring circuit to monitor the health of the power amplifiers. The power amplifier module further comprises an interlock feature to protect the power amplifiers from faults such as thermal fault, over current fault, PS fault and voltage standing wave ratio (VSWR) fault.
Title of the invention: PLODDABLE SOAP COMPOSITION, AND IMPLEMENTATION THEREOF

International classification: H04L 29/08

Name of Applicant: ITC LIMITED
Address of Applicant: ITC LIFE SCIENCES & TECHNOLOGY CENTRE #3. 1st Main, Peenya Industrial Area, Phase-1, Bangalore - 560 058 Karnataka India

Name of Inventor: 1) KOTA, Lakshmi Sravanthi 2) KARAD, Rameshwar Babasaheb 3) SHAIK, Sydulu 4) DAS, Subir Kumar 5) VIJAYKRISHNAN, Venugopal S

Abstract:
The present disclosure discloses a ploddable soap composition comprising: total fatty matter (TFM), at least one humectant, at least one conditioning agent, and moisture content having a weight percentage in a range of 15% to 18% by weight with respect to the composition, wherein the TFM to the at least one humectant has a weight-by-weight (w/w) ratio in arrange of 3:1:: 10.5:1. Also, disclosed is a process to obtain the ploddable soap composition of the present disclosure. A plodded soap obtained from the ploddable soap composition is also disclosed in the present disclosure.
ABSTRACT

A CONFIGURATION USING RETAINER RING CONCEPT FOR CONNECTING MOTOR CASE TO NOZZLE IN A SOLID ROCKET MOTOR

The invention describes an interface configuration for connecting a motor case (2) to nozzle in a solid rocket motor. The configuration comprises the motor case (2) with retainer ring groove, nozzle convergent hardware (3), a retainer ring (5), splicer plates (8), screw assembly and shaft sealing means (7). The retainer ring having a first retainer segment (12), a second retainer segment (13), a third retainer segment (14) and a fourth retainer segment (15). The first retainer segment (12) is having larger arc length has to be positioned in the retainer groove on the motor case (2) and then the second retainer segment (13) is to be seated. After that, the third retainer segment (14) is to be interested on other side of the first retainer segment (12) then the fourth retainer segment (15) is to be inserted. The sectors are to be interconnected using splicer plate and screws. Reference Figure. 2
**Title of the invention:** EXPANDING TUBE ASSEMBLY FOR EXPLOSIVE SEPARATION SYSTEMS

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<td>Disclosed herein is an improved expanding tube assembly for explosive separation systems used in upper stages of launch vehicles comprising of flattened tube (1), composite cord, booster charges, end adaptors (2), retainer and redundant detonating cartridges. Detonators mounted on redundant end adaptors (2) at both ends of the flattened tube (1) to trigger the composite cord. On firing, the flattened tube (1) expands back to its original configuration (i.e. shape and size). This radial expansion of the flattened tube (1) is utilized for imparting deflection and severance to the adjacent frangible metallic structure of the separation system. Reference Figure. 1</td>
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No. of Pages : 12 No. of Claims : 8
Title of the Invention: METHOD AND APPARATUS FOR PROVIDING VARIABLE STEERING ASSISTANCE TO A VEHICLE

Abstract:
Method(s) and apparatus for providing variable steering assistance to a vehicle are disclosed. The method(s) and apparatus include receiving (101), at a steering assistance controller (301), from a vehicle sensor network, a first set of inputs related to the vehicle and determining (103) an initial amount of steering assistance for the first set of inputs. Upon determining the initial amount of steering assistance a maximum amount of steering assistance is selected (105) based on the determined initial amount of steering assistance. Then, a final amount of steering assistance based on the selected maximum amount of steering assistance is determined (107) and applied (109) to steer the vehicle.
Title of the invention: MULTI WALLED CARBON NANO TUBE LEAD SENSOR

Abstract:
Presence of heavy metals like lead in drinking water is very dangerous to humans and may cause even death in particular cases. The maximum permissible concentration of lead in drinking water according to Indian standards is 15 ppb. The sensor consists of a chlorinated multi walled carbon nanotube (MWGNT) substrate with a signal conditioning circuit. Thus, when the lead in water reacts with the chlorine in the MWCNT substrate, a change in resistance is caused. This change in resistance is converted into voltage by a signal conditioning circuit like Wheatstone bridge. An Arduino compares the threshold voltage with the voltage from the bridge circuit and provides the required indication using LED lights.
**Title of the invention:** IMPROVED PROCESS FOR THE PREPARATION OF HIGHLY PURE ROMIDEPSIN

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| (71) Name of Applicant :               | 1) MSN Laboratories Private Limited, R&D Center |
|                                       | Address of Applicant : MSN Laboratories Private Limited, R&D Center Plot No. 12, Phase-IV, Sy No. 119 to 140, 258, 275 to 280, IDA, Pashamylaram (Vil), Patancheru (Mdl), Sangareddy (Dist), Telangana, India - 502307. Telangana India |

| (72) Name of Inventor :                | 1) Srinivasan Thirumalai Rajan |
|                                       | 2) Sajja Eshwaraiha |
|                                       | 3) Ghojala Venkat Reddy |
|                                       | 4) Porala Subbanarasimhulu |

**Abstract:**

Title: IMPROVED PROCESS FOR THE PREPARATION OF HIGHLY PURE ROMIDEPSIN The present invention relates to an improved process for the preparation of pure Romidepsin of formula-I.

No. of Pages : 16 No. of Claims : 10
Disclosed herein is a method and an information updating system for dynamically updating a product manual. In an embodiment, information related to products are received and analyzed to identify issues in handling the product. Thereafter, resolution information required for resolving the identified issues is extracted and compared with existing resolution information in the product manual to identify a missing portion of the product manual. Subsequently, the product manual is updated with the missing portion based on a logical resolution graph of the product manual. In an embodiment, the present disclosure helps in building comprehensive and reliable product manuals, thereby enhancing usability of the products. FIG. 1

No. of Pages : 36 No. of Claims : 16
(54) Title of the invention: **METHOD, DEVICE, AND SYSTEM FOR CLUSTERING DOCUMENT OBJECTS BASED ON INFORMATION CONTENT**

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<td>1) WIPRO LIMITED</td>
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<td>3) RAMESHWAR PRATAP</td>
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(57) Abstract:
This disclosure relates to method, device, and system for clustering document objects based on information content. The method may include identifying a plurality of object chunks from at least one document based on semantic context of each of the plurality of object chunks, determining at least one document portion from the at least one document as a base document based on a plurality of parameters applied to the plurality of object chunks, determining a plurality of hierarchies within the base document, and categorizing the plurality of object chunks based on the plurality of hierarchies and information in each of the plurality of object chunks. It should be noted that each of the plurality of object chunks may include at least one object selected from the at least one document. Figure 2

No. of Pages: 33 No. of Claims: 19
Title of the invention: METHOD AND SYSTEM FOR DETERMINING SPURIOSITY OF AN ALARM GENERATED BY AN ALARM SYSTEM

Abstract:
This disclosure relates to method and system for determining spuriosity of an alarm generated by an alarm system. The method may include receiving sensor data and maintenance data. The sensor data may include one or more environmental parameters and one or more trigger parameters, and the alarm is generated based on the one or more trigger parameters. The method may further include generating one or more input vectors based on the sensor data and the maintenance data, and determining a spuriosity index of the alarm based on the one or more input vectors using a machine learning model. The machine learning model may be created using historical sensor data and historical maintenance data, and the spuriosity index is indicative of the spuriosity of the alarm. Figure 2

No. of Pages: 31 No. of Claims: 14
A distributed system to charge an electric vehicle and a method to operate the same are provided. The distributed system includes a processing subsystem. The processing subsystem includes a registration module configured to enable one or more customers and one or more service providers to register on a platform, a charging port allocation module configured to check an availability of at least one charging port to charge the electric vehicle, a time allocation module configured to compute a time interval to utilise the charging service, an agenda extraction module configured to extract an agenda of one or more services provided by the one or more service providers in addition to the charging service, an electricity monitoring module configured to monitor consumption of electricity by the electric vehicle, a payment module configured to compute a cost. FIG. 1

No. of Pages : 29 No. of Claims : 13
**Title of the invention:** SENSOR FOR LIQUID LEVEL MANAGEMENT IN A TANK

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**Name of Inventor:**
1. NANDAKUMAR SURYANARAYANA SETTY KATTA
2. KANTHARAJU PETE CHIKKANA PALYA KAVALLAIAH

**Abstract:**
Abstract Sensor system for liquid level management in a tank. Disclosed is a compact sensor device for automatic liquid level sensing in a tank and liquid filling control. The system has an intelligent detection of liquids filled level in a tank that is completely opaque. The system further has the ability to check whether to continue to fill the tank or turn-off the supply therefore minimizing manual intervention, overflows, spillage, loss of liquids. The invention comprises of electro mechanical parts that assist in performing the described functions as well as has ability to transmit certain functional states (data signal), that can further be used in different systems/applications enablement. The sensor system enables operations efficiency, curb losses, make supply chain smarter and therefore transforming both the system and processes smarter. The invention comprises of a newly designed electro-mechanical sensor for the purpose of sensing the liquid levels Figure 1

No. of Pages: 8 No. of Claims: 6
The present disclosure relates to the field of remotely operated underwater vehicles. The present disclosure envisages a polar remotely operated underwater vehicle (100). The vehicle (100) includes a body, and a pair of rigid protective frames (102C). A pair of acoustic sensor modules (104), mounted on the body, generate an acoustic signal based on the velocity of the vehicle (100) with reference to the bottom of the waterbody. Plurality of thrusters (106) is attached to the body to manoeuvre the vehicle (100). A vehicle electronic unit is coupled with the acoustic sensor modules (104), sensors (116) and the thrusters (106). The vehicle electronic unit is configured to receive the acoustic signal and communicate it to a deck control system of a deployment vessel. The deck control system processes the signal and communicates the processed signal to the vehicle electronic unit to vary the speed of the thrusters (106).
(12) PATENT APPLICATION PUBLICATION
(21) Application No.201841045389 A
(19) INDIA
(22) Date of filing of Application :30/11/2018
(43) Publication Date : 05/06/2020

(54) Title of the invention : A PROCESS FOR PREPARATION OF MEBENDAZOLE

(51) International classification :A61K 31/4184
(31) Priority Document No :NA
(32) Priority Date :NA
(33) Name of priority country :NA
(86) International Application No :NA
Filing Date :NA
(87) 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 a process for the preparation of Mebendazole of Formula-I comprising the step of reacting 3,4-Diaminobenzophenone of Formula-II with 1,3-Bis(methoxycarbonyl)-2-decyl-2-thiopseudourea of Formula-III.

No. of Pages : 16 No. of Claims : 10
A SWITCHGEAR EQUIPMENT WITH A SHUTTER ASSEMBLY

ABSTRACT
A switchgear equipment having a bus bar connection with a vacuum circuit breaker (VCB) through a bushing having an opening to receive a terminal of the VCB for electrical connection with a current collector that is partially embedded within the bushing, the opening of the bushing gets covered with a shutter plate of a shutter assembly, and the shutter assembly comprises an operating link associated with a frame of the VCB to operate the shutter plate on movement of the VCB; the current collector comprises a first metallic portion for receiving the terminal of the VCB and a second metallic portion perpendicular to the first metallic portion. The second metallic portion having surface area larger than the surface area of the first metallic portion for reducing non-uniform electric field between the current collector and shutter plate when the shutter plate is closing the opening of the bushing.

No. of Pages: 26
No. of Claims: 10
Title of the invention: METHOD AND SYSTEM FOR PROVIDING RECOMMENDATIONS DURING VEHICLE NAVIGATION

Abstract:
The present disclosure relates to a recommendation engine and a method for providing recommendations during navigation of the vehicle on a road. The recommendation engine provides recommendations in real-time to one or more occupants of the vehicle. The recommendation engine receives data related to the vehicle and environment surrounding the vehicle in real-time. The date along with a historical data set regarding the road is used to generate a training set corresponding to a plurality of conditions of the road. Thereafter, the training set is used to create a multi-variate regression model. The multi-variate regression model is applied on the received data for detecting a condition of the road during navigation of the vehicle. The detected condition of the road is used for providing one or more recommendations to the one or more occupants of the vehicle. Figure 1

No. of Pages: 23 No. of Claims: 17
ABSTRACT

Rubber adhesive composition is disclosed herein. The disclosed rubber adhesive composition facilitates good adhesion of rubber surfaces. The disclosed embodiments achieve adhesion of tube valves and tire tubes by facilitating interfacial bonding. Embodiments of the adhesive composition disclosed herein provide a convenient and simple method of bonding. The embodiments of the adhesive composition disclosed herein provide an eco-friendly method of bonding as it eliminates the usage of hazardous solvent. Accordingly, disclosed embodiments also provide a method of bonding object surfaces. Also disclosed are ready-to-use tube valves and method of producing the same. Fig. 1

Fig 1

No. of Pages : 20
No. of Claims : 22
### Title of the invention:
ALLOCATION OF VEHICLES FOR INTER-CITY RIDES

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<td>1) ANI TECHNOLOGIES PRIVATE LIMITED</td>
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<tr>
<td>1) Mr. Prerit Srivastava</td>
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<td>2) Avinash Eratapalli</td>
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### Abstract:
A method and a system for optimizing inter-city rides are provided. An inter-city booking request for an inter-city ride is received from a passenger device of a passenger for travelling from a first geographical area to a second geographical area. In response to the received inter-city booking request, inter-city demands towards the first geographical area from intermediate geographical areas including the second geographical area are predicted. Based on the predicted inter-city demands and the received inter-city booking request, a discounted ride fare for the inter-city ride is determined. A confirmation corresponding to the discounted ride fare is received from the passenger device of the passenger for the inter-city ride. A vehicle is allocated to the passenger the inter-city ride based on the received confirmation.

No. of Pages : 42 No. of Claims : 18
Title of the invention: METALLIC CARD FOR CARDING MACHINE

Abstract:
A metallic card (801) for use in carding machines has been disclosed. The card comprises a base (802) and a blade (803) formed on the base, the blade comprising teeth (804), characterized in that the teeth (804) comprises a tooth pitch p, a first rising edge (8041) having a defined contour, transitions from a tooth root base (8042) to form a first tip (8043) of a first tooth, the first tip of the first tooth comprising a tooth height D1 from the tooth root base (8042), a working angle substantially between 0° to 50° formed by the first rising edge (8041) of the first tooth tip (8043), an angle substantially between 50° to 90° formed by a trailing edge (8044) of the first tooth; a second rising edge (8045) having a defined contour substantially transitions from a point (8046) at the tooth root base (8042) or a point (8046™) at the trailing edge (8044) of the first tooth tip to form a second tooth, the second tooth comprising a height D3 from the point (8046) at the tooth root base (8042) or from the point (8046™) at the trailing edge (8044) of the first tooth tip to a tip (8047) of the second tooth, a height D2 from the tip (8047) of the second tooth to the tooth root base (802), and a trailing edge (8048) from the tip (8047) of the second tooth being contoured to substantially transition into a rising edge (8041™™) of a subsequent first tooth tip (8043™™). FIGURE 8

No. of Pages : 27 No. of Claims : 10
**Title of the invention:** AFTERBODY AERODYNAMIC DEVICE TO REDUCE FORM DRAG

- **International classification:** B62D 35/00
- **Date of filing of Application:** 02/12/2018
- **Date of Publication:** 05/06/2020
- **Name of Applicant:**
  1. Aria AeroTech Pvt. Ltd.
- **Address of Applicant:** 91 Springboard, opp. National Games Village 8th Block Koramangala, Bengaluru, Karnataka. Karnataka India
- **Name of Inventor:**
  1. Prithvi Sai Penumadu
  2. Pradeep V. Pandurangi

**Abstract:**
An afterbody aerodynamic device to reduce form drag created by movement of a vehicle. The afterbody aerodynamic device comprises top panels, side panels, main frame, secondary frame, and double pivot-hinge system. The top panels positioned at a top surface of a rear side of the container. The top panels comprise a left top panel positioned above the left container door, and a right top panel positioned above right container door. The side panels comprise a left side panel positioned proximate the left container door, and right side panel positioned proximate the right container door. The main frame houses the top panels and side panels to form an outer casing. The secondary frame is attached with the main frame of the side panels on first side to held the main frame in position on trailing edge of main frame. The double pivot-hinge system held the main frame on the leading edge.
The present disclosure envisages a limb flexion apparatus (100) comprising a plurality of sensors (20) to sense multiple parameters with respect to a user’s body and to generate sensed parameters values, a flexion extension counter (30) to count the number of repetitions performed by the user and to generate flexion extension count values, an alert generation module (40) to generate alert signals if the sensed parameters values exceed the threshold parameter values or the flexion extension count values exceed a predefined count values, a GSM module (45) to receive the alert signals and wirelessly transmit the alert signals, and a pre-registered handheld device (50) to receive the alert signals indicating the sensed parameters values and the flexion extension count values.

No. of Pages : 18 No. of Claims : 10
The present invention provides a tamper evident bleeding tape acting as a thermal, chemical and manual tampering indicator.

The present invention provides a multilayered tampered evident bleeding tape (103) (hereinafter, bleeding tape) capable of providing visual indications of thermal and manual tampering attempts. The bleeding tape (103) comprises of a top first layer (201) printed with at least one thermo-chromic reactive ink i.e. bleeding ink (203); a first layer (201) and a second layer (202), acting as impermeable layers encapsulating a bleeding ink (203); a bottom adhesive layer attaching the third layer (204) at one side and a surface on the other side; and optionally a removable release liner layer i.e. fourth layer (205) to protect the adhesive layer, when not in use.
Title of the invention: SEALING DEVICE, IN PARTICULAR FOR AN ENGINE SHAFT

Abstract:
"SEALING DEVICE, IN PARTICULAR FOR AN ENGINE SHAFT" ABSTRACT Sealing device (1) including a first annular screen (4) which can be engaged with a first stationary member (2) carrying axially and radially projecting an annular sealing lip (9) and a second annular screen (7) which can be engaged with a second rotating member (3) which is fastened idle to the first screen on the opposite side to the sealing lip (9) so as to define between them a labyrinth seal (19) of the static type; the second screen (7) being provided with a plurality of projections (20) projecting axially and situated on the opposite side to the sealing lip (9), having a radial extension and being arranged circumferentially separated by respective circumferential recesses (22) so as to form a helix (24) defining a dynamic labyrinth seal (23) designed, following relative rotation of the screens (4, 7), to generate a fluid stream (25) which repels the external contaminants.

No. of Pages: 22 No. of Claims: 10
Title of the invention : LIGHTING DEVICE FOR VEHICLE

Abstract :
A rear combination light includes a light source for a taillight, a reflector that encloses surroundings of the light source for the taillight, and natural light reflective parts that extend outside the reflector. Cutouts are formed in portions corresponding to the natural light reflective parts in the reflector. The natural light reflective part has risers that can reflect light from the light source for the taillight.

[Figure 3]
The current transformer (1) includes a magnetic circuit (2) made of magnetic material that is intended to be placed around a primary conductor (3), and a secondary winding (4) that is wound onto a portion (5) of said magnetic circuit (2) in order to deliver a secondary current to processing circuits (32). In this current transformer the magnetic circuit (2) comprises at least one device (6, 6A, 6B) for varying the magnetization of a portion of said magnetic circuit according to the temperature in order to limit or to decrease the magnetic flux in the magnetic circuit when the temperature of the magnetic circuit increases. The protection device and the electrical circuit breaker include such a transformer. Figure for the abstract: 3

No. of Pages : 19 No. of Claims : 14
In a case where a registration state of a printing apparatus in operating system (OS) standard print software and a registration state of the printing apparatus in print conversion software do not match each other, an information processing apparatus performs a process for matching between a registration state of a print queue of the printing apparatus in the OS standard print software and the registration state of the printing apparatus in the print conversion software. [Figure 1]

No. of Pages : 43 No. of Claims : 17
Presented are concepts for feature identification in medical imaging of a subject. One such concept processes a medical image with a Bayesian deep learning network to determine a first image feature of interest and an associated uncertainty value, the first image feature being located in a first sub-region of the image. It also processes the medical image with a generative adversarial network to determine a second image feature of interest within the first sub-region of the image and an associated uncertainty value. Based on the first and second image features and their associated uncertainty values, the first sub-region of the image is classified. Fig. 1
An end effector is provided that includes a first valve operably connected to a first motor housing, the first valve being moveable along at least four axes, a second valve operably connected to a second motor housing, the second valve being moveable along at least four axes, and a proximity adjustment mechanism configured to adjust a horizontal distance between the first valve and the second valve. An associated conformal coating machine and method are also provided.
The application relates to a braking system for an internal combustion engine system and an engine system. A braking system for an internal combustion engine system includes an exhaust rocker lever, a solenoid control valve, and a control oil passage. The solenoid control valve is configured to enable/disable braking. The control oil passage is connected between the solenoid control valve and the exhaust rocker lever to deliver oil to the exhaust rocker lever. At least a portion of the control oil passage is integrated within the exhaust rocker lever. Figure 3A
Title of the invention: INTEGRALLY PRODUCED CABLE GLAND

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Abstract:
Cable gland (1) for guiding a cable (2) through a wall opening, comprising a body element (10) extending along a longitudinal axis (3) and having an internal cable duct (11) extending along the longitudinal axis (3), a clamping portion (20) arranged on the body element (10) and having a plurality of clamping elements (21), a tubular sealing element (50) arranged inside the cable duct (11) and connected to the body element (10), and a cap nut (40) having an axial opening at one end which is mechanically coupled with the body element (10), wherein the body element (10) is formed from a first material and the cap nut (40) is formed from a second material, wherein the first material and the second material are injection moulded on to one another. (Fig. 2)
Each of a low beam lamp and a high beam lamp connected in series includes at least one light source. A lamp driving circuit is configured to supply current to each of the n lamps. A first voltage detecting circuit is configured to detect a first voltage that is a sum of voltages applied to each of the low beam lamp and the high beam lamp. A second voltage detecting circuit is configured to detect a second voltage that is applied to the high beam lamp. A processor is configured to obtain a difference between the first voltage and the second voltage, and to detect a failure in the low beam lamp based on comparison between the difference and a rewritable normal operation voltage of the low beam lamp.
**Title of the invention:** FUEL SUPPLYING DEVICE

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| (31) Priority Document No        | 2018-225277                                                                                     |
| (32) Priority Date               | 30/11/2018                                                                                      |
| (33) Name of priority country    | Japan                                                                                           |
| (86) International Application No Filing Date | NA                                                                                              |
| (87) International Publication No Filing Date | NA                                                                                              |
| (61) Patent of Addition to Application Number Filing Date | NA                                                                                              |
| (62) Divisional to Application Number Filing Date | NA                                                                                              |

**Abstract:**

A fuel supplying device (10) includes: a housing (12) that accommodates a fuel pump (14) and has a high pressure fuel chamber (140) that communicates with a fuel discharge port (82); first and second delivery passages (40, 104) that communicate with the high pressure fuel chamber (140) and deliver a fuel at high pressure to an injector; and a pressure regulator (122) provided between a release chamber (34) of the housing (12) and the high pressure fuel chamber (140). Moreover, a flow-straightening passage (124) is provided in the housing (12) between a communicating port (138) having a valve seat (128) of the pressure regulator (122) and the high pressure fuel chamber (140). This flow-straightening passage (124) is coaxial with the communicating port (138), and has a length along a direction of the axis formed larger than a diameter thereof. [Figure 2]

No. of Pages: 36 No. of Claims: 5
Examples provided herein describe a method for reducing recovery time for an application. For example, a first physical processor of a computing device may monitor, based on a first application instance of the application running in a first mode, for failure detection of the first application instance running on a first computing device. The first physical processor may determine that the first application instance is to be changed from the first mode to a second mode. Based on the determination, the first physical processor may validate that a second application instance can run in the first mode by performing a data integrity compliance check. Responsive to validating that the second application instance can run in the first mode, the first physical processor may facilitate running of the second application instance in the first mode.
Implementations of the present disclosure include instantiating a test blockchain container having read-only access to a production blockchain copying a set of blocks from the production blockchain to a test environment to provide a test blockchain the test blockchain container having read-write access to the test blockchain and executing a test of a blockchain application the test resulting in a set of test blocks being sequentially appended to the test blockchain each test block at least partially including test data wherein production blocks are appended to the production blockchain during execution of the test.
TITLE OF THE INVENTION: UTILIZING NONCE TABLE TO RESOLVE CONCURRENT BLOCKCHAIN TRANSACTION FAILURE

Abstract:
Implementations of the present disclosure include initializing a nonce table comprising a plurality of nonce slots, each nonce slot being associated with a nonce index and a status, and storing a respective nonce value; receiving a request for a nonce value from an application, and in response, requesting a nonce value from the nonce table; receiving a nonce value in response to the request, a status of a nonce slot corresponding to the nonce value being set to occupied; and in response to a transaction using the nonce value being one of successful and failed, executing one of: releasing the nonce value within the nonce slot and setting the status to unoccupied, if the transaction is successful, and setting the status to unoccupied, if the transaction failed. [Figure 6]
Title of the invention: PLATFORM FOR ATOMIC TRANSFER OF SMART ASSETS WITHIN BLOCKCHAIN NETWORKS

Abstract:
Implementations of the present disclosure include receiving a merger request including a first identifier of a first node and a second identifier of a second node and an identifier of a first smart asset the first smart asset being associated with the first node determining whether the first smart asset is capable of merger with a second smart asset associated with the second node at least partially based on the identifier of the first smart asset and an identifier of the second smart asset and in response to determining that the first smart asset is capable of being merged with the second smart asset automatically: updating the second smart asset the updated second smart asset being assigned a value and including properties of the first smart asset recording the updated second smart asset to the second node and deleting the first smart asset.
Title of the invention: BLOCKCHAIN DATA RELATIONSHIP STRUCTURING SCHEME BASED ON BINARY LOG REPLICTION

Abstract:
Implementations of the present specification include polling the blockchain at specified time intervals, receiving block information from one or more updated blocks, the block information including static information and dynamic information, the dynamic information including one or more variables to be used in a smart contract, converting the dynamic information into one or more binary logs, and updating the local database using the one or more binary logs. [Figure 4]
Implementations of the present disclosure include receiving, by a contract updates management system, an update request indicating a change to a smart contract, the change being a proposed update to the smart contract, determining, by executing an updates smart contract within the contract updates management system, whether conditions are met for updating the smart contract to incorporate the change, the updates smart contract defining the conditions, and upon determining, by the contract updates management system, that the conditions are met, updating, by the contract updates management system, the smart contract, and recording the change to one or more blocks in a blockchain of a blockchain network. [Figure 4]

No. of Pages : 18 No. of Claims : 30
Implementations of the present disclosure include receiving a transfer request including a first identifier of a first node a second identifier of a second node an identifier of a smart asset and a value determining whether the smart asset is capable of transfer at least partially based on the identifier of the smart asset and the value and in response to determining that the smart asset is capable of being transferred automatically: providing a first smart asset and a second smart asset the first smart asset being assigned a first identifier a first value and including properties of the smart asset the second smart asset being assigned a second identifier the value and including properties of the smart asset recording the first smart asset to the first node and the second smart asset to the second node and deleting the smart asset. Fig 4.
The present invention relates to a method for preparing biodegradable microspheres having improved stability and storage stability. According to the preparation method of the present invention, the morphological change of microspheres is minimized and the residual solvent is remarkably low so that biodegradable microspheres having improved stability and storage stability can be produced.

Example 1–1

No. of Pages : 35 No. of Claims : 20
The present invention relates to a sustained-release injection preparation comprising biodegradable polymer microspheres containing donepezil as an active ingredient and a preparation method therefor. The present invention provides a sustained-release microsphere preparation of donepezil having a high content and favorable administrative ability and a preparation method therefor and thus reduces gastrointestinal side effects of a patient which frequently occur in conventional oral administration preparations and increases medication compliance thereby maximizing therapeutic effects.

Example 3

No. of Pages : 41 No. of Claims : 11
Techniques and apparatuses are described that provide an ultra-low power mode for a low-cost force-sensing device. These techniques extend battery life of the device by minimizing power consumption for potential wake-up events. To do this a high-pass filter (e.g. differentiator) is used to evaluate sensor signals in a time domain to provide an estimate of a rate of change of the signal. When the rate of change of the signal deviates from a baseline value by a threshold amount then a microcontroller is woken to evaluate a large number of historical samples such as 200 or more milliseconds worth of historical data. If a human gesture is not recognized then the microcontroller returns to an idle state but if a human gesture is recognized then a high-power application processor is woken to execute an application configured to perform an operation mapped to the human gesture.
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   Address of Applicant : 5200 Illumina Way, San Diego, California 92122 U.S.A.

(72) Name of Inventor :
1) JIANG, Rui
2) PINTO, Joseph

(57) Abstract :
There is set forth herein a light energy exciter that can include one or more light sources. A light energy exciter can emit excitation light directed toward a detector surface that can support biological or chemical samples.
Name of Applicant :
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2) SHI, Shiming
3) LIU, Zhixi
4) ZHOU, Weifeng

Title of the invention : ARRAY SUBSTRATE AND PREPARATION METHOD THEREFOR, FINGERPRINT RECOGNITION METHOD, AND DISPLAY DEVICE

Abstract :
An array substrate and a preparation method therefor, a fingerprint recognition method, and a display device, comprising: a base substrate (11), a plurality of pixel units (01) and a plurality of fingerprint recognition units (02) located within a display region of the base substrate (11); a fingerprint recognition unit (02) comprises: a light-shielding layer (21) and a photosensitive image sensor (23) that are located on the base substrate (11); the light-shielding layer (21) is provided with a through hole (22) which is used to achieve small-aperture imaging; the orthographic projection of the through hole (22) on the base substrate (11) does not overlap with the orthographic projection of a pixel unit (01) on the base substrate (11); the photosensitive image sensor (23) is used to receive an image of a fingerprint formed by means of the through hole (22). Fig 2a.

Fig 2a

No. of Pages : 12 No. of Claims : 16
(54) Title of the invention : DETECTOR WITH REDUCED FLUORESCENCE RANGE NOISE

(51) International classification : G01N 21/64
(31) Priority Document No : 62/611464
(32) Priority Date : 28/12/2017
(33) Name of priority country : U.S.A.
(86) International Application No : PCT/US2018/063395
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7) FENG, Wenyi

(57) Abstract :
There is set forth herein a device comprising structure defining a detector surface configured for supporting biological or chemical substances, and a sensor array comprising light sensors and circuitry to transmit data signals using photons detected by the light sensors. The device can include one or more features for reducing fluorescence range noise in a detection band of the sensor array.
ABSTRACT POWERED CHAIRS FOR PUBLIC VENUES, ASSEMBLIES FOR USE IN POWERED CHAIRS, AND COMPONENTS FOR USE IN ASSEMBLIES FOR USE IN POWERED CHAIRS

Powered chairs, assemblies for use in the powered chairs, and components for use in the assemblies are provided. Electrical systems for use in the powered chairs, and components for use in the electrical systems are provided. Control systems and methods for operating powered chairs are also provided. Any given chair may be locally and/or remotely controlled. [Figure 1]
**Title of the invention:** BEAM INDICATION FOR UPLINK POWER CONTROL

**International classification:**
- H04W0052140000, H04W0052240000, H04W0052280000, H04W0052340000, H04W0052080000

**Priority Document No:** 62/557,018
**Priority Date:** 11/09/2017
**Name of priority country:** U.S.A.

**International Application No:** PCT/IB2018/056935
**Filing Date:** 11/09/2018

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4) WERNERSSON, Niklas

**Abstract:**
A user equipment (UE) being configured to receive a downlink, DL, information; determine a spatial association for an uplink, UL, transmission based on the DL information; and determine UL power control, PC, parameters based on the DL information. [FIGURE 15]

No. of Pages : 117 No. of Claims : 38
The disclosed embodiments provide a system for processing application-programming interface (API) calls. During operation, the system identifies a set of transformation rules that match one or more permissions associated with a first representation of a request to an API. Next, the system applies the set of transformation rules to a first set of fields in the first representation of the request to generate a second representation of the request, wherein the second representation of the request includes a second set of fields that is different from the first set of fields. The system then triggers processing of the request using the second set of fields by a service providing the API.
Provided is a brake piping structure for saddled vehicles, wherein the number of restraint members for brake piping can be reduced, and the interference of the brake piping with another component can be avoided. A brake piping structure for saddled vehicles has: a left and right pair of rear frames (29) connected to the rear of the vehicle body frame (3) of a saddled vehicle (1) and supporting a seat (31); a swing arm (23) supported in a rockable manner on the vehicle body frame (3) by a pivot (18); and brake piping (111) for transmitting hydraulic pressure produced by an ABS modulator (27) to the rear brake caliper (112) of a rear wheel (WR). The ABS modulator (27) is disposed between the left and right pair of rear frames (29). The brake piping (111) extends downward toward the front of the vehicle body from the ABS modulator (27) along the rear frames (29), is bent in front of the pivot (18) toward the rear of the vehicle body, extends below the swing arm (23), and is connected to the rear brake caliper (112).
An SCR system includes at least one catalyst, and an intake conduit. The intake conduit includes an intake conduit first sidewall, at least a portion of which defines a first curvature. An intake conduit second sidewall is coupled to the intake conduit first sidewall so as to define the intake conduit. A catalyst is fluidly coupled to the intake conduit through the intake conduit second sidewall. The intake conduit second sidewall is inclined at a first angle with respect to a longitudinal axis of the SCR system, such that an intake conduit second end cross-section of the intake conduit is smaller than an intake conduit first end cross-section. An intake conduit third sidewall is positioned at the intake conduit second end. The intake conduit is structured to produce an even flow split of the exhaust gas through the intake conduit internal volume towards the catalyst.
Title of the invention : NPRACH FORMATS FOR NB-IOT TRANSMISSION IN TDD MODE

Abstract :
Random Access (RA) formats are defined for NB-IoT operation in TDD mode. The formats are defined to allow use of the legacy LTE subframe configurations for TDD. The formats specify a predetermined, even number P of symbol groups composing a RA preamble, wherein each symbol group comprises a Cyclic Prefix (CP) and a number X of symbols. The P symbol groups are divided into symbol group sets fitting into 1, or 2, or 3 contiguous uplink subframes, each comprising at least two symbol groups transmitted back-to-back (i.e., contiguously in time), and at least two symbol group sets are transmitted non-contiguously in time across a number of uplink subframes over which the RA preamble is transmitted. The number of symbol groups in a set can be two or three, and the number of symbol groups is four or six, respectively. Symbol groups within a set are transmitted on adjacent uplink subframes. Five format options are defined, which map to various of the LTE TDD configurations.

No. of Pages : 27  No. of Claims : 16
The invention relates to an energy storage system (1) comprising a housing (2) in which a plurality of storage cells (3) are arranged, the storage cells (3) are thermally insulated from each other by means of a device (4) mounted between the storage cells (3). The device (4) is designed in such a way that the storage cells (3) are spaced apart and the device (4) is made from temperature-resistant elastic material.

No. of Pages: 12 No. of Claims: 15
(12) PATENT APPLICATION PUBLICATION
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(21) Application No. 202047013183 A
(23) Priority Document No. 10 2017 119 772.9
(31) Priority Date : 29/08/2017
(32) Priority Date : 29/08/2017
(33) Name of priority country : Germany
(36) International classification : A47B 88/467
(37) Priority Document No : 10 2017 119 772.9
(38) Priority Date : 29/08/2017
(39) Name of priority country : Germany
(43) Publication Date : 05/06/2020
(44) International Application No : PCT/EP/2018/072631
(45) Filing Date : 22/08/2018
(47) Filing Date : NA
(48) Divisional to Application Number : NA
Filing Date : NA
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2) GEL, Viktor

(54) Title of the invention : RETRACTION DEVICE FOR RETRACTING A MOVABLE PART OF AN ITEM OF FURNITURE OR DOMESTIC APPLIANCE INTO AN END POSITION

(57) Abstract :
The invention relates to a retraction device (10) for retracting a movable part of an item of furniture or domestic appliance into an end position, said device having a driver (21), which is guided along a guide path (13), is coupled to a force accumulator, and is movable between an end position and a parked position, wherein - the guide path (13) has an angled end portion (132), into which the driver (12) drives via at least one guide pin (121, 122) in the parked position so as to release an activator (6) of the movable part, and wherein - the guide path (13) has an evasion portion (133), into which the driver (12) can pivot via the at least one guide pin (121, 122) in the end position so as to evade the activator (6). The evasion portion (133) and/or an outer contour of the driver (12) are designed according to the invention such that, as the driver (12) pivots in, the driver (12) experiences a restoring moment through the force accumulator. The invention also relates to an item of furniture or domestic appliance with a movable part, in particular a sliding door, which has at least one retraction device (10) of this kind for the movable part.

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

The Patent Office Journal No. 23/2020 Dated 05/06/2020 21393
The invention relates to a process for converting a feedstock comprising at least one sugar into 5-hydroxymethylfurfural, wherein said feedstock is brought into contact with one or more inorganic dehydration catalysts and one or more chloride sources in the presence of at least one aprotic polar solvent alone or as a mixture, at a temperature of between 30°C and 200°C, and at a pressure of between 0.1 MPa and 10 MPa.
The purpose of the present invention is to provide a battery charging station that allows for easier and more efficient battery replacement. Provided is a battery charging station (1) that can store a plurality of batteries (40) inside a housing (12) while allowing the batteries (40) to be inserted or taken out using a battery replacement unit (70), wherein the housing (12) has a trough (V) recessed toward the center of the housing from outermost surfaces (3, 6) of the housing (12). At least a part of the housing (12) including the trough (V) is given a dark color so that that part of the housing appears darker than the ambient color. The battery replacement unit (70) is provided in the trough (V). A display (20) is provided in a dark colored portion. The housing includes a shutter (30) that has the same color or the same type of color as the dark colored portion. The inside (80) of the housing seen when the shutter (30) is opened has a different color from the shutter (30).
The main purpose of the present invention is to provide a novel crystal of 2-{4-[N-(5,6-diphenylpyrazine-2-yl)-N-isopropylamino]butyloxy} acetic acid (hereinafter compound B”). A type I crystal of compound B with which, in a powder X-ray diffraction spectrum obtained by using CuKa radiation (λ=1.54 …), the diffraction angle (2) shows peaks at the diffraction angles 6.4°, 8.1°, 9.5°, 10.9°, 13.2°, 15.7°, 17.0°, 19.5°, 20.3°, 21.0°, and 22.8°. A type II crystal of compound B with which, in a powder X-ray diffraction spectrum obtained by using CuKa radiation (λ=1.54 …), the diffraction angle (2) shows peaks at the diffraction angles 9.6°, 11.4°, 11.7°, 16.3°, 17.5°, 18.5°, 18.7°, 19.9°, 20.1°, 21.0°, and 24.6°.
Methods, systems, and devices for wireless communications are described. A UE may configure a physical uplink shared channel (PUSCH) using shortened transmission time intervals (sTTIs), which may be referred to as a shortened PUSCH (sPUSCH), to transmit uplink control information (UCI) to a base station or other wireless device. The UE may use mapping rules, which may be based at least in part on a number of data symbols included in the sPUSCH, to map different types of UCI to different resource elements (REs) within the sPUSCH. A base station or other wireless device may use mapping rules, which may be based at least in part on a number of data symbols included in an sPUSCH, to determine one or more REs within the sPUSCH to monitor for different types of UCI.
A method for recognizing a weak point in an original program (1) using a test program (2), the original program being configured to perform a predetermined function (4) on input data (D) when executed in a predetermined runtime environment (3) and the test program being configured to execute the same predetermined function on the input data when executed in the predetermined runtime environment, comprising: executing (S1) the original program and the test program in parallel on identical input data in the predetermined runtime environment; obtaining (S2) a test information characterizing the execution of the test program; and determining (S3) whether the original program has a weak point based on a comparison of the test information with a predetermined weak point information indicating conditions for recognizing weak points. Weak points of a program can be determined dynamically, without having to perform a time consuming testing in an artificial test environment.

No. of Pages : 17 No. of Claims : 14
Aspects of the present disclosure provide for random access channel (RACH) configuration in wireless communication systems. In some examples, a RACH configuration may be selected for use by a scheduled entity in transmitting a RACH signal to a scheduling entity based on an estimated timing advance value. The RACH configuration may include, for example, a transmission time of the RACH signal and/or a RACH waveform configuration identifying at least a cyclic prefix (CP) length and a guard time (GT) for the RACH signal. In some examples, the CP and GT length may each be set to the difference between an estimated maximum round-trip time (RTT) and an estimated minimum RTT between the scheduled entity and the scheduling entity. In some examples, the timing advance value may be estimated as the estimated minimum RTT.
In accordance with an embodiment, described herein are systems and methods for enabling multiple parents with weights in a multidimensional database. An exemplary system can comprise a computer that includes one or more microprocessors, and a multidimensional database server executing on the computer, wherein the multidimensional database server supports at least one hierarchical structure of data dimensions. A data dimension can comprises a plurality of members, a first set of members being a first level, and a second set of members being at a second level. A member of the second set of members at the second level can comprises two or more member-member relationships with two or more members of the first set of members at the first level. Each of the two or more member-member relationships are associated with a weight.
The invention relates to a motorcycle seat assembly (23) comprising a support structure (22) and seat upholstery (4) arranged on the support structure (22), and comprising a seat upholstery cover (69) spanning the seat upholstery (4), the support structure (22) comprising a first side (28) which faces the seat upholstery (4) and a second side (29) which faces away from the seat upholstery (4), and the second side (29) comprises at least one portion having an outer edge region (24, 25), and at least one portion (18, 19) of the seat upholstery cover (69) overlaps at least one part of the portion (24, 25) of the outer edge region, the seat upholstery cover (69) being a resilient, three-dimensional moulded body (1).
Title of the invention: SMART MEAL ORDERING METHOD AND DEVICE

| (51) International classification: | G06Q 30/00 |
| (31) Priority Document No: | 201710908884.4 |
| (32) Priority Date: | 29/09/2017 |
| (33) Name of priority country: | China |
| (86) International Application No: | PCT/US2018/053106 |
| Filing Date: | 27/09/2018 |
| (87) International Publication No: | WO 2019/067710 |
| (61) Patent of Addition to Application Number: | NA |
| Filing Date: | NA |
| (62) Divisional to Application Number: | NA |
| Filing Date: | NA |

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Abstract:
A smart meal ordering method comprises: conducting body sensing of a diner by a body sensing hardware of a smart meal ordering device; outputting a meal ordering interface by a display screen of a smart meal ordering device in response to sensing that the diner has taken a seat, and obtaining information of one or more dishes selected by the diner on the meal ordering interface; and in response to sensing that the diner has left the seat, sending a total price of the dishes and identification information of the smart meal ordering device to a server.

No. of Pages: 28 No. of Claims: 20
This pressure booster (10) having arranged therein drive cylinders (14, 16) on both sides of a boosting cylinder (12) is provided with:

- a pair of pilot valves (72, 74) that are actuated when pistons (36, 38) of the drive cylinders abut against the moving ends thereof; and a pair of actuation valves (48, 52) that switch the supply state of a pressure fluid to pressure chambers (24a, 26a) of the drive cylinders.

When the pilot valves are actuated, the pressure fluid passes through the pilot valves and is supplied to the pair of actuation valves, and the supply state of the pressure fluid is switched.
## Title of the invention: METHOD OF PREPARING GLYCOL ESTERS WITH LOW COLOR AND PEROXIDE CONTENT

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<td>POPOV'TSEV, Egor Evgenievich</td>
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## Abstract:
The present invention relates to the field of preparing glycol esters used as plasticizers in the manufacture of films for multilayered glass. In particular, the invention relates to a method for preparing triethylene glycol ester of 2-ethylhexanoic acid. The claimed method includes the steps of esterification, clarification of a crude ester by treating thereof with hydrogen peroxide and alkali metal metasilicate at a temperature of from 70 to 200ºC, inclusive, and allowing to stand for 0.5 to 1.5 hours, inclusive, to obtain a clarified ester, neutralization of acidic compounds in the clarified ester by treating thereof with an alkaline solution, filtration, and drying of the ester. The technical result of the invention is the development of an economical and safe method of preparing glycol esters that are characterized by low values of color, acidity and peroxide content.
Methods, systems, and devices for wireless communications are described. A transmitting device may identify synchronization signals and a set of frequency hopping channels for communications as part of a discovery reference signal (DRS) in an anchor channel. The set of frequency hopping channels may include a sequence to indicate an order for utilizing each hopping channel of the set of hopping channels. In some cases, the hopping sequence may be a pseudo random sequence. Additionally, the hopping sequence may be defined such that a non-repeating hopping sequence or pattern which visits all hopping frequencies before revisiting the same frequency is utilized. As such, each hopping channel may be utilized an equal number of times within a period of time and have an approximately equal occupancy time to the other hopping channels.
An integrated cooling system for cooling filament of an additive manufacturing machine is provided. The integrated cooling system comprises a cooler and a delivery duct. The cooler is configured to circulate cool fluid. The delivery duct is connected to the cooler to receive cool air from the cooler. At least a part of the delivery duct defines an arch that circumferentially surrounds a nozzle assembly of the additive manufacturing machine. The delivery duct defines a plurality of vents for the cool air to exit the delivery duct. The vents are angled such that the cool air exiting the vents converge to an area on the print plate where the molten filament is getting deposited.

No. of Pages : 42 No. of Claims : 16
A movement system for achieving movement of at least a nozzle assembly in an additive manufacturing machine is provided. The movement system comprises a first tower and a belt assembly. The first tower is configured to move back and forth along a first axis. The belt assembly is configured to enable the back and forth movement of the first tower along the first axis. The belt assembly comprises a belt, a gear and at least two bearings. The belt interfaces with the gear and the two bearings, with one bearing on each side of the gear, such that the belt is sandwiched between the gear and the bearings. The belt is engaged to the first tower. Rotation of the gear results in movement of the belt, and thereby the first tower, along the first axis.
A system for feeding filament to a nozzle in an additive manufacturing machine is provided. A filament extrusion assembly is configured to extrude the filament from a spool. A nozzle holder comprises a protruded portion. The nozzle holder defines a through hole which extends into the protruded portion. The through hole receives the filament extruded by the filament extrusion assembly. The protruded portion is located immediately below a point where the filament exits the filament extrusion assembly. A nozzle assembly comprises a cooling chamber which defines a through hole aligned with the through hole of the nozzle holder. The cooling chamber defines at least one groove coaxial with the through hole of the cooling chamber. The groove receives at least one sealing member wherein the groove is defined where the nozzle holder interfaces with the cooling chamber.

No. of Pages: 41 No. of Claims: 20
An antenna module is described. The antenna module includes a ground plane in a multilayer substrate. The antenna module also includes a mold on the multilayer substrate. The antenna module further includes a conductive wall separating a first portion of the mold from a second portion of the mold. The conductive wall is electrically coupled to the ground plane. A conformal shield may be placed on a surface of the second portion of the mold. A conformal shield is electrically coupled to the ground plane.
Various embodiments are described herein for methods, devices and systems that can be used to track at least one emission type generated, directly or indirectly, by an entity. In one example embodiment, the system includes an emission tracking device coupled to the entity, where the emission tracking device receives a first emission data received at a first time and a second emission data received at a second time after implementation of one or more emission reduction steps. The system further includes an external processor in communication with the emission tracking device, where the external processor is configured to analyze the first emission data to determine an emission baseline, analyze the second emission data to determine a second emission output value, and determine an emission offset measurement corresponding to the at least one emission type based on the emission baseline and the second emission output value.
The present invention provides a pharmaceutical composition comprising a probiotic and a prebiotic for preventing acquisition of and/or alleviating symptoms associated with an infection caused by an Extended-spectrum beta-lactamases (ESBL) producing organism and other drug resistant pathogens. More particularly, the pharmaceutical composition comprises at least one Lactillobacillus specie(s) as a probiotic and at least one oligosaccharide as a prebiotic. The present invention further provides a method of preventing acquisition of and/or treating an infection caused by Extended-spectrum beta-lactamases (ESBL) producing bacteria and other drug resistant pathogens, comprising administering an effective amount of a pharmaceutical composition comprising a probiotic and a prebiotic to a subject in need thereof.
(12) PATENT APPLICATION PUBLICATION (21) Application No.202047015546 A
(19) INDIA (43) Publication Date : 05/06/2020
(22) Date of filing of Application :09/04/2020

(54) Title of the invention: **A PHARMACEUTICAL COMPOSITION COMPRISING A COMBINATION OF PROBIOTIC AND PREBIOTIC TO TREAT STUNTING**

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(57) Abstract:
The present invention provides a pharmaceutical composition including a probiotic and a prebiotic for treatment of stunting in children. More particularly, the pharmaceutical composition includes at least one Lactobacillus specie(s) as a probiotic and at least one oligosaccharide as a prebiotic. The present invention further provides a method of treatment of stunting including administering an effective amount of a pharmaceutical composition including a probiotic and a prebiotic to children in need thereof.

No. of Pages : 26 No. of Claims : 20
The present disclosure provides techniques for preamble puncturing in wireless local area networks (WLANs). In one implementation, an access point (AP) can identify, within a channel width, one or more bandwidth regions associated with incumbent technologies. The AP can broadcast or advertise, to a basic service set (BSS) initiated or started by the AP, a preamble puncture pattern in one or more management frames, the preamble puncture pattern being based on the bandwidth regions associated with incumbent technologies. In another implementation, an AP can identify a single user (SU) preamble puncture transmission, and can signal in a common portion of a SIG-B field of a multi-user (MU) PPDU format that a resource unit (RU) size is assigned to a same user to indicate the SU preamble puncture transmission. Although these techniques may be used in any frequency band, typical frequency bands may include, but are not limited to, a 2.4 GHz band, a 5 GHz band, and/or a 6 GHz band.

No. of Pages : 33 No. of Claims : 56
**Title of the invention:** METHOD OF PROVIDING SERVICE BASED ON LOCATION OF SOUND SOURCE AND SPEECH RECOGNITION DEVICE THEREFOR

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**Abstract:**
A speech recognition device is provided. The speech recognition device includes at least one microphone configured to receive a sound signal from a first sound source, and at least one processor configured to determine a direction of the first sound source based on the sound signal, determine whether the direction of the first sound source is in a registered direction, and based on whether the direction of the first sound source is in the registered direction, recognize a speech from the sound signal regardless of whether the sound signal comprises a wake-up keyword. fig 1

No. of Pages: 40 No. of Claims: 15
The invention relates to a drive device for a movable furniture part (3) comprising a lockable ejection device (6), by means of which the movable furniture part (3) can be ejected out of a closing position by an energy accumulator (22) in the opening direction, the ejection device (6) comprising a control element (40) that can be coupled to the movable furniture part (3) and is held by the energy accumulator (22) in a locked position of the ejection device (6) on a multiple-part locking seat. An electromechanical actuator (82) is provided for unlocking the ejection device (6), by means of which part (51) of the locking seat can be moved.
Title of the invention: CORNER MEMBER FOR A SUPPORTIVE FRAME ASSEMBLY

A frame corner member includes an elongated hollow extrusion having a central corner portion and two leg portions extending from the central portion. Each leg portion includes an inner side wall spaced from and parallel to an outer side wall, and merging with the central portion. An outer end wall joins the inner and outer side walls, which each include an inner surface facing the inner surface of the other side wall. An opening through the outer end wall defines a space between the inner and outer side walls adjacent one end of the extrusion for receiving one end of one of frame side members and end members. At least one of the inner surfaces in the space has discrete surface features adapted to grip and retain the one end of one of the side members and end members in the space when received through the opening.

No. of Pages: 16 No. of Claims: 20
A method of creating a light script for a video is disclosed. The light script comprises lighting control instructions for controlling one or more light sources when the video is being displayed. The method (600) comprises: - receiving a user input indicative of a selection of a lighting control instruction for a scene (S1, S11, S21, S31, S32), - associating the lighting control instruction (L1, L11, L21, L31, L32) with the scene (S1, S11, S21, S31, S32), - analyzing (602) the scene (S1, S11, S21, S31, S32) of the video to identify a scene characteristic (C1, C11, C21, C31, C32) in the scene, - analyzing (604) the video or another video to recognize, in a further scene (S4, S13, S24, S34), a similar or identical scene characteristic (C1, C11, C21, C31, C32), and - associating (606), based on the recognition of the similar or identical scene characteristic (C1, C11, C21, C31, C32), the lighting control instruction (L1, L11, L21, L31, L32) with the further scene (S4, S13, S24, S34), such that when the scene (S1, S11, S21, S31, S32) and the further scene (S4, S13, S24, S34) are being displayed the one or more light sources are controlled according to the lighting control instruction (L1, L11, L21, L31, L32).
A control circuit, of a control loop, for a lighting driver. The lighting driver is adapted to controllably connect an electronic ballast to an LED light source or lamp. The control circuit comprises a biasing circuit having an adjustable impedance. A tuning circuit adjusts the impedance of the biasing circuit so as to tune a parameter of a frequency response of the control loop and thereby of the lighting driver.
Efficient gesture-based contact lens algorithms for human to contact lens communication

Abstract:
An eye-mountable device is provided that includes an eyelid occlusion sensor. The eyelid occlusion sensor is used to detect winks, squints, downwards glances or looks, blinks, or other eye-based gestures generated by the user. Based on the detected gestures, an optical power of an adjustable lens of the device may be changed or some other operations could be performed by the eye-mountable device. Such operations could include toggling the optical power of the lens between first and second power levels due to the user squinting, looking downward, or performing some other gesture. Additionally or alternatively, such operations could include setting the optical power of the lens to a first optical power unless the user is looking downward, in which case the optical power of the lens could be set to a second optical power.
Methods, systems, and devices for wireless communications are described. Generally, the described techniques provide for adjusting communication timings of beams (e.g., of beam pair links) within a beam timing advance group (TAG). In some cases, a base station may determine that transmission timing at a UE may be misaligned between multiple beams. The base station may configure a set of beams into a beam TAG, and may send a timing advance (TA) command for the beam TAG. A common timing reference value may be identified based on the TA command. UEs performing uplink transmissions may determine a TA value for the beam TAG based on the common timing reference value, and may adjust a communication timing for one or more of the beams within the beam TAG based at least in part on the common timing reference value and the timing advance value.
Certain aspects of the present disclosure provide techniques for providing an uplink specific backoff indicator in a wireless communication network.
Certain aspects of the present disclosure relate to communication systems, and more particularly, to efficient data scheduling in systems having a supplemental uplink carrier (SUL) configured. In some aspects, a method for wireless communications by user equipment (UE) is provided. The UE receives signaling configuring the UE for uplink control channel transmission on a primary uplink carrier (PUL) or a SUL. The SUL is an uplink carrier not paired to a downlink carrier. The UE monitors in at least one search space for downlink control information (DCI) scheduling the UE for uplink data transmission to a cell on the PUL or the SUL. The UE sends one or more uplink data transmissions to the cell on the primary uplink carrier or the supplemental uplink carrier based on the DCI.
Abstract:
Methods, systems, and devices for wireless communications are described. The described techniques provide for determining to not transmit a portion of a second signal that overlaps in time with a first signal. A user equipment (UE) may identify a first signal to be communicated during a first time duration using a first beam pair link (BPL) and identify a second signal that is scheduled to be communicated during a second time duration using a second BPL. The UE may identify a misalignment between timing advance values for the BPLs, the misalignment causing an overlap in time between the first signal scheduled during the first time duration and the second signal scheduled during the second time duration. The UE may determine whether to drop part of the second signal and communicate the first signal and a remaining portion of the second signal based at least in part on the determining.

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<td>Title of the invention: SATELLITE SYSTEM AND METHOD FOR ADDRESSING RAIN FADE</td>
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| (71) Name of Applicant | 1) WORLDVU SATELLITES LIMITED
Address of Applicant: 1785 Greensboro Station Place, Tower 3, Suite 500 McLean, VA 22102 U.S.A. |
| (72) Name of Inventor | 1) WYLER, Gregory, Thane |

(57) Abstract:
A method for operating a satellite, wherein a beam frequency-assignment schedule for the satellite is based on rain fade information. And a communications payload for a satellite that is capable of implementing the changes required by the schedule.

No. of Pages: 14 No. of Claims: 11
An icon display method, a device, and a system, capable of automatically displaying a service icon on a desktop of an electronic device, so that a user can directly use a service item by means of the service icon, thereby reducing user operations and improving user experience. The specific solution is: an electronic device automatically determines a first service item of a first application (401); display a first icon on a display interface of the electronic device, the first icon corresponding to the first service item (402); and in response to an operation performed on the first icon, display an interactive interface of the first service item (403).
In an example aspect, a method for service registration in a communications network is provided. The method comprises receiving a service registration request, the request identifying a network function to provide a service, a type of the service, and a version of the service, and storing information in a repository, the information identifying the network function, the type of the service and the version of the service.
The present invention relates to a method for anti-corrosion treatment of components produced from aluminum, in particular casting parts such as vehicle rims, comprising a pre-treatment stage and subsequent painting. The pre-treatment stage in turn includes a pickle on the basis of sulfuric acid aqueous solutions containing water-soluble compounds of the element Ti and at least one hydroxycarboxylic acid which is carried out upstream of an acidic conversion treatment on the basis of an acidic aqueous solution containing water-soluble compounds of the elements Zr and/or Ti.
Title of the invention: HEAD-MOUNTED DEVICE, HEAT STROKE PREVENTION SYSTEM, AND REHYDRATION ALARM SYSTEM

Abstract:
This head-mounted device is provided with: an outer shell; a first flow channel which is an empty space between a wearer's head and the outer shell; a second flow channel provided in the outer shell in such a manner as to be connected with the first flow channel; a fan which blows air from one of the first and second flow channels to the other; a first humidity sensor for measuring the absolute humidity of intake air flowing into one of the first and second flow channels; a second humidity sensor for measuring the absolute humidity of exhaust air discharged from the other of the first and second flow channels.

No. of Pages: 30 No. of Claims: 16
The invention relates to a roll stand for rolling rolling stock, particularly metal products. Said roll stand comprises at least two chocks for mounting at least one roll, the roll being rotatably mounted in the chocks with the two cylindrical roll necks thereof. A cylindrical neck bushing is arranged on the roll neck with radial play. A non-rotatably mounted annular axial bearing is axially staggered in relation to the neck bushing. The bearing arrangement for the roll neck in the chocks is embodied as a sliding bearing, preferably as a hydrodynamic oil film bearing. When subjected to a load in a rolling process, the neck bushing moves and deforms not only in the radial direction but also in the axial direction. The aim of the invention is to prevent wear or damage during an axial delimitation of the neck bushing. To this end, the neck bushing (120) is mounted in such a way that it can be axially moved between a first abutment (140-1) in the form of an axial bearing and a second abutment (140-2) over an axial stretch a on the cylindrical roll neck (114).

No. of Pages : 10 No. of Claims : 18
The present invention provides an AC/DC converter comprises an input for receiving a rectified AC input signal (Vin), an output for providing a controlled output signal (Vout) to a load (7), a switched mode power converter for transforming the AC input signal (Vin) into the controlled output signal (Vout), wherein the switched mode power converter has an input for receiving a start-up voltage (Vstart) for changing a stand-by mode of the switched mode power converter into an operating mode of the switched mode power converter, a control circuit (5) for receiving a control signal (Vctl), a kick-start power supply (6) for receiving a switch-on signal (Von) to supply the start-up voltage (Vstart) being larger than a power supply voltage (Vsup), an auxiliary power supply (4) for supplying the power supply voltage (Vsup) to the control circuit (5) and the kick-start power supply (6), wherein the control circuit (5) is arranged for activating the switch-on signal (Von) to activate the kick-start power supply (6) for turning the switched mode power converter from the stand-by mode into the operating mode. Fig. 2
Aspects of the embodiments are directed to a microfluidic chip and methods of making the same. The microfluidic chip can include a sensor device residing on the microfluidic chip, the sensor-side comprising a chemical sensor and the backside including a backside electrode, the chemical sensor electrically coupled to the backside electrode by a via; a microfluidics channel in the microfluidic chip, the sensor-side of the sensor device facing the microfluidics channel; and a metal contact electrically connected to the backside electrode.

No. of Pages : 20 No. of Claims : 18
**Title of the invention:** PRODUCTION METHOD FOR BACTERIAL CELLS

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**Abstract:**

The present invention provides a production method for bacterial cells that, in a multi-stage liquid cultivation process for bacteria, includes a step in which, in the stage prior to the final stage, the bacteria are cultivated using a liquid medium containing an antibiotic substance, and in the final stage, the bacteria are cultivated upon reducing the concentration of the antibiotic substance to below that of the prior stage. It is thereby possible to produce the bacterial cells with excellent yield while suppressing the appearance of mutant individuals forming aberrant colonies in the bacteria obtained after cultivation.

No. of Pages : 16 No. of Claims : 10
**Title of the invention:** SAMPLE CONTAINER RECOGNITION

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<td>1) BECKMAN COULTER, INC.</td>
<td>250 S. Kraemer Boulevard Brea, CA 92821 U.S.A.</td>
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**Abstract:**

Systems and methods are provided for recognizing various sample containers carried in a rack. The systems and methods are performed to identify sample containers in the rack and detect various characteristics associated with the containers and/or the rack, which are evaluated to determine the validity and/or types of the containers in the rack.

No. of Pages : 37 No. of Claims : 20
Provided is a gRNA targeting HPK1 and a method for editing HPK1 gene. The method can knock out the T cell HPK1 gene, enhance the T cell killing activity, increase the Th1 cytokine level of peripheral blood mononuclear cells, and knock out of the T cell HPK1 gene can also down-regulate the expression of PD-1 and TIM3 on the T cell surface and can inhibit the T cell depletion.

No. of Pages : 125 No. of Claims : 99
Abstract:
Provided is a rack bush capable of reducing an effect on the feeling of a steering operation. A rack bush (1) comprises: a bush body (2) that is accommodated in a cylindrical housing (4), supports a load exerted on a rack bar (5) while allowing the rack bar (5) to move in the direction of an axis (O), and can be extended and retracted in a radial direction; and an elastic ring (3) mounted on the bush body (2). The bush body (2) is formed in the circumferential direction on an outer peripheral surface (22) and has a mounting groove (28) for mounting the elastic ring (3). In the mounting groove (28), an axis P deviates from the axis (O) of the bush body (2). This configuration allows the formation of an elastic ring protruding part (10), in which the elastic ring (3) protrudes greatly from the outer peripheral surface (22) of the bush body (2), and an elastic ring embedded part (11), in which the elastic ring 3 is embedded in the outer peripheral surface (22) of the bush body (2).
Provided is a slide bearing, sliding performance of which can be maintained over a long period of time. A slide bearing (1) includes an upper case (2) configured to be attached to an upper support for attaching a suspension to a vehicle body, a lower case (3) rotatably combined with the upper case (2) to form an annular space (7), and an annular center plate (4) and an annular sliding sheet (5) that are disposed in the annular space (7). The center plate (4) has a bearing surface (40) sliding together with the sliding sheet (5) and an annular groove (42) formed on the bearing surface (40) and configured to retain a lubricant. The annular groove (42) has an inner peripheral surface (43a) inclined radially outward from the opening side of the annular groove (42) toward the groove bottom side of the same and an outer peripheral surface (43b) inclined radially inward from the opening side toward the groove bottom side. An intersecting line P between the inner peripheral surface (43a) and the outer peripheral surface (43b) is located closer to the bearing surface (40) side than to a rear surface (41) of the center plate (4).
Systems, methods, and computer-executable instructions for supporting custom functions within an application. An application add-in is received that includes a custom function and a custom function location. The application is available across multiple platforms. The custom function is also available across multiple platforms. The custom function is registered within the application using the custom function location. A request to invoke the custom function is received within the application. A custom function implementation is downloaded from the custom function location. The custom function implementation is executed. A return value is received from the custom function implementation. The return value may be displayed within the application.
Title of the invention: HETEROCYCLIC COMPOUND AND HARMFUL ARTHROPOD CONTROLLING AGENT CONTAINING SAME

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<td>SUMITOMO CHEMICAL COMPANY, LIMITED</td>
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Address of Applicant: 27-1, Shinkawa 2-chome, Chuo-ku, Tokyo 1048260 Japan

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Abstract:
The present invention provides: a compound having an excellent controlling effect against a harmful arthropod and represented by formula (I); and a composition containing the compound, wherein, in formula (I), Q represents a group represented by formula Q1; a group represented by formula Q2 or a group represented by formula Q3; a combination of A2 and A3 represents a combination in which A2 is a nitrogen atom and A3 is CR4b, or a combination in which A2 is CR4a and A3 is a nitrogen atom; Z represents an oxygen atom or a sulfur atom; and T represents a C2-C10 chain hydrocarbon group having one or more halogen atoms, etc.
An example preprocessor circuit for formatting image data into a plurality of streams of image samples includes: a first buffer (705) configured to store a plurality of rows (814) of the image data (802) and output a row of the plurality of rows; a second buffer (708), coupled to the first buffer (705), including a plurality of storage locations (709) to store a respective plurality of image samples of the row (814) output by the first buffer (705); a plurality of shift registers (712); an interconnect network (710) including a plurality of connections (718), each connection (718) coupling a respective one of the plurality of shift registers (712) to more than one of the plurality of storage locations (709), one or more of the plurality of storage locations (709) being coupled to more than one of the plurality of connections (718); and a control circuit (714) configured to load (1608) the plurality of shift registers (712) to output the plurality of streams of image samples.
Provided is a piston ring to be combined with a low friction cylinder liner, with which it is possible to obtain a friction reducing effect of the low friction cylinder liner even at low rotational speeds when the rotational speed of an internal-combustion engine is 1000 rpm or less, such as in an idling state. This piston ring to be combined with a low friction cylinder liner in which prescribed recessed portions are formed in an inner wall surface of the cylinder liner has a piston ring surface pressure of 0.8 to 2.5 MPa.
The subject matter of the invention is methods for producing silicon particles having volume-weighted particle size distributions with diameter percentiles d50 of from 1.0 µm to 10.0 µm and an oxygen content of from 0.1% to 5% by weight, based on the total weight of the silicon particles, by 1) grinding silicon to form silicon particles, wherein the grinding takes place in an oxidative atmosphere or in an oxidative medium and/or the silicon particles obtained by means of grinding are exposed to an oxidative atmosphere, and 2) thermally treating the silicon particles obtained in step 1) at a temperature of from 300°C to 1100°C in an inert gas atmosphere or under reduced pressure.
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**Title of the invention:** FUSED RING DERIVATIVE AS A2A RECEPTOR INHIBITOR

**Abstract:**

Disclosed are a compound represented by formula (I) or a pharmaceutically-acceptable salt thereof, and an application of the compound or salt in preparation of drugs for treating diseases related to an A2A receptor.

No. of Pages : 71 No. of Claims : 17
Provided is a lithographic printing plate precursor that includes, in the order given, a support, an image recording layer, and an overcoat layer. The overcoat layer contains a water-soluble polymer and particles having a melting point of 70 to 150°C. The volume-average particle diameter of the particles is greater than 0.7µm. Also provided is a lithographic printing plate fabrication method using the lithographic printing plate precursor.

No. of Pages : 81 No. of Claims : 12
**Title of the invention:** SADDLE RIDING VEHICLE AIRBAG DEVICE

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   Address of Applicant: 1-1, Minami-Aoyama 2-chome, Minato-ku, Tokyo 107-8556 Japan

**Name of Inventor:**
1) AIKYO Yutaka
2) SATO Takashi
3) FUMA Makoto

**Abstract:**
A saddle riding vehicle airbag device wherein the airbag device is compactly arranged, and an airbag is made to be able to deploy vertically upward. The saddle riding vehicle airbag device comprises a retainer 41 provided in front of an occupant seat, an inflator, and an airbag 42 that is accommodated in the retainer 41 and that deploys in front of the occupant by inflating with a gas released by the inflator, wherein: the retainer 41 is provided with an L-shaped airbag passage 48 that causes the airbag 42 to deploy upward in the left-right direction; and, in a deployed state, the airbag 42 is formed bilaterally asymmetrical with respect to a left-right center line C of the airbag 42.

No. of Pages: 42 No. of Claims: 5
(54) Title of the invention: POWER STORAGE DEVICE

| (51) International classification          | :H01M 2/12 |
| (31) Priority Document No                 | :NA        |
| (32) Priority Date                        | :NA        |
| (33) Name of priority country             | :NA        |
| (86) International Application No         | :PCT/JP2017/035038 |
| Filing Date                               | :27/09/2017 |
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(57) Abstract:
This electricity storage device is provided with: a secondary battery (11); a housing (10) formed in a substantially rectangular shape and internally housing the secondary battery (11) in a tightly closed state; and a discharge valve (31) for, when the pressure inside the housing (10) rises to a set pressure or more, releasing the pressure inside the housing (10) to the outside. The discharge valve (31) is configured using a valve element capable of opening and closing a discharge path (26) in accordance with the pressure inside the housing (10). A recess portion (30), the upper side and one side of which are opened, is provided on the upper wall (10a) of the housing (10). The upper side of the recess portion (30) is covered with a lid member (40). The discharge valve (31) is disposed inside the recess portion (30). A ventilation space (45) is provided between the bottom surface (30a-1) of an opening portion (30a) on the one side of the recess portion (30) and the lid member (40).

No. of Pages: 20 No. of Claims: 5
A grouping agent may include processing circuitry configured to receive a device identifier of a communication device associated with a transportation asset, define a communication group including the communication device and one or more other communication devices also associated with the transportation asset, and enable communication of a message to the communication group on the transportation asset.

No. of Pages: 18 No. of Claims: 20
(57) Abstract:
An inter-network communication controller may include processing circuitry. The processing circuitry may be configured to receive location information associated with an in-flight aircraft being tracked and provided with air-to-ground (ATG) wireless communication services by a first ATG network. The first ATG network may employ beamforming directed to the aircraft to provide the communication services. The processing circuitry may also be configured to provide the location information to a second ATG network to enable the second ATG network to utilize the location information for employing beamforming to establish wireless communication with the aircraft. The first ATG network and the second ATG network may each operate over different ranges of radio frequency (RF) spectrum.

No. of Pages : 19 No. of Claims : 20
The present invention relates to polypeptides having mannanase activity, catalytic domains, and carbohydrate binding modules, and polynucleotides encoding the polypeptides, catalytic domains, and carbohydrate binding modules. The invention also relates to nucleic acid constructs, vectors, and host cells comprising the polynucleotides as well as methods of producing and using the polypeptides, catalytic domains, and carbohydrate binding modules.
The present invention relates to polypeptides having mannanase activity, catalytic domains, and carbohydrate binding modules, and polynucleotides encoding the polypeptides, catalytic domains, and carbohydrate binding modules. The invention also relates to nucleic acid constructs, vectors, and host cells comprising the polynucleotides as well as methods of producing and using the polypeptides, catalytic domains, and carbohydrate binding modules.
A catheter pump system with a pump having a fluid displacement member in the blood flow channel, a motor and a motor controller having a pressure sensing port for connection to a control pressure source. The motor controller is arranged for causing motor speed to be increased in response to a reduction of pressure applied to the pressure sensing port and for causing motor speed to be reduced in response to an increase of pressure applied to the pressure sensing port. The motor may be a pneumatic motor for driving the pump and the motor controller may be arranged for controlling motor speed by reducing flow through a supply channel to the motor and allowing an increase of flow through the supply channel to the motor in response to control signals received via an input interface.
Abstract:
Various aspects of the present disclosure generally relate to wireless communication. In some aspects, a user equipment may receive carrier information identifying at least one of: an initial absolute frequency for a carrier, a tone boundary offset value for the carrier, a number of resource blocks included in the carrier, or a frequency offset from a reference frequency; and determine a resource allocation of the carrier based at least in part on the carrier information and a subcarrier spacing of the user equipment. Numerous other aspects are provided.

No. of Pages: 24  No. of Claims: 38
(54) Title of the invention : FINGER GRIP FOR SMART TERMINAL

(51) International classification : H04M 1/04, C09J 7/20
(31) Priority Document No : 10-2017-0124612
(32) Priority Date : 26/09/2017
(33) Name of priority country : Republic of Korea
(86) International Application No : PCT/KR2018/009023
   Filing Date : 08/08/2018
(87) International Publication No : WO 2019/066243
(61) Patent of Addition to Application Number : NA
   Filing Date : NA
(62) Divisional to Application Number : NA
   Filing Date : NA

(57) Abstract :
A finger grip for a smart terminal is disclosed. A finger grip for a smart terminal according to the present invention is attached to one side of the outer peripheral surface of the smart terminal such that the same can be used with a user's finger fitted therein. Therefore, the user can stably grip the smart terminal and freely use his/her hand. Further, provided is a finger grip for a smart terminal, wherein a variable sheet that can be used with a user's finger fitted therein allows the user to more stably grip the smart terminal and has multiple protrusions arranged thereon to make the size thereof suitably adjustable for thicknesses of various users' fingers.

No. of Pages : 14 No. of Claims : 7
**54) Title of the invention:** PROCESSING DEVICE AND PROCESSING METHOD

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**57) Abstract:**

This processing device has: a support column (22) that has a plurality of workpiece attachment surfaces (25); a first processing unit (32A) and a third processing unit (32C) that perform processing with respect to two mutually opposing surfaces of at least one workpiece (W) fixed to one of the workpiece attachment surfaces (25) of the support column (22); and a second processing unit (32B) that performs processing at the same time as the first processing unit (32A) and the third processing unit (32C) on a plurality of workpieces (W) respectively fixed to one workpiece attachment surface (25) and to two workpiece attachment surfaces (25) which are perpendicular to the one workpiece attachment surface (25), among the plurality of workpiece attachment surfaces (25).

No. of Pages: 35 No. of Claims: 9
Title of the invention : SADDLE-TYPE VEHICLE

Provided is a saddle-type vehicle which is capable of more compactly arranging a battery and an ABS modulator below a seat. A rear fender is provided with front box part 55 which has a box shape having an opening 55A, and which is provided with: left and right side walls 55c; and a bottom wall which connects at least the left and right side walls 55c. A battery 91 and an ABS modulator 92 are accommodated in the front box part 55. The opening 55A of the front box part 55 is closed by a seat 13.
A method for detecting the binding of a chromatin-associated factor of interest to a sequence of chromatin DNA in a cell, including: contacting a permeabilized cell or nucleus with a specific binding agent that specifically recognizes the chromatin-associated factor of interest, wherein the specific binding agent is linked to a nuclease that is inactive or an activatable transposome; activating the nuclease or transposase, thereby excising the sequence of chromatin DNA bound to the chromatin-associated factor of interest; isolating the excised DNA; and determining the sequence of the excised DNA, thereby detecting binding of a chromatin-associated factor of interest to a sequence of chromatin DNA in the cell.

No. of Pages : 159 No. of Claims : 67
The invention relates to a method for controlling the charging of a crusher (50), driven by a crusher drive via transmission elements, of a material comminution system (10), wherein material (73) which is to be crushed, in particular stone material which is to be crushed, is fed to the crusher, a filling level of the crusher, preferably at a crusher inlet, is determined using a filling level sensor (61), and the volume flow of material to be crushed which is fed to the crusher is set and/or regulated according to the filling level determined.

According to the invention, the mechanical loading of the crusher or a characteristic variable which is dependent on the mechanical loading of the crusher is determined directly or indirectly, and the filling level of the crusher is set according to the mechanical loading determined, or the characteristic variable which is dependent thereon. The invention also relates to a control unit and to a computer program product for carrying out the method. The method permits low-wear operation of the material comminution system and of the crusher with, at the same time, a high material throughput rate.
A method of pixel-wise localization of an actor and an action in a sequence of frames includes receiving a natural language query describing the action and the actor. The method also includes receiving the sequence of frames. The method further includes localizing the action and the actor in the sequence of frames based on the natural language query.
(54) Title of the invention: MAPPING UPLINK CONTROL INFORMATION TO UPLINK DATA CHANNEL IN WIRELESS COMMUNICATION

(51) International classification: H04L 5/00
(31) Priority Document No: 62/590599
(32) Priority Date: 26/11/2017
(33) Name of priority country: U.S.A.
(86) International Application No: PCT/US2018/061674
   Filing Date: 16/11/2018
(87) International Publication No: WO 2019/103942
(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) GAAL, Peter
4) WANG, Renqiu

(57) Abstract:
Methods and apparatuses are disclosed for multiplexing uplink control information and uplink user data in the same uplink slot. A scheduling entity may use a unified rule to map uplink control information (UCI) in a distributed fashion according to a predetermined step size on each orthogonal frequency division multiplexing (OFDM) symbol regardless of UCI types. The scheduling entity may use a unified rule to partition the UCI into two parts when frequency hopping is enabled, and use the same unified rule to map the UCI in each hop.

No. of Pages: 33 No. of Claims: 36
Methods, systems, and devices for wireless communications are described. Some wireless communications systems may support communications between a base station and a user equipment (UE) on multiple carriers. A UE may maintain a connection with a base station on a first carrier (e.g., an anchor carrier), and the UE may use a discontinuous reception (DRX) cycle on a second carrier. The DRX cycle may include scheduled on-durations during which the UE may monitor the second carrier for signaling from the base station. To reduce the power consumption at the UE associated with repeatedly monitoring scheduled on-durations, the base station may transmit wake-up signaling to the UE on the first carrier to identify the on-durations that include data from the base station. Accordingly, the UE may monitor these on-durations for the data and avoid monitoring other on-durations to limit power consumption.
Various aspects provide for a propulsion system (200) for a ship (100) comprising at least first and second thrusters (205, 206) and first and second directors (220, 720), wherein a computing platform (300) is coupled to the thrusters and directors being configured to receive desired longitudinal and lateral headings (750, 760) and determine a configuration of the propulsion system that is expected to propel the ship in the desired longitudinal and lateral headings.
(54) Title of the invention : DIGITAL THERAPEUTIC CORRECTIVE SPECTACLES

(57) Abstract :
Devices for testing, identifying, and compensating for ocular pathologies affecting the vision of a patient are provided in the form of digital therapeutic corrective spectacles that provided personalized, customized visual field corrected/enhancement. The devices include wearable spectacles with one or more digital monitors that are used to recreate an entire visual field as a digitized corrected image or that include custom-reality glasses that can be used to overlay a visual scene with generated image to correct or enhance the visual field of the subject.

No. of Pages : 57 No. of Claims : 30
Title of the invention: METHOD FOR PRODUCING PEPTIDE COMPOUND

Abstract:
The present invention addresses the problem of providing a highly efficient method for producing a peptide. A method for producing a peptide including the following steps (1) and (2). (1) A step for condensing an N-protected amino acid or an N-protected peptide to the N-end of a C-protected amino acid or a C-protected peptide represented by formula (II): [in the formula, Y represents an amino acid having an unprotected N-end or a peptide having an unprotected N-end; R1, R2, and R3 each independently represent an optionally substituted aliphatic hydrocarbon group, an optionally substituted aromatic hydrocarbon group, OR4 (where R4 represents an optionally substituted aliphatic hydrocarbon group or an optionally substituted aromatic hydrocarbon group); two of R1, R2, and R3 may form a 5- to 7-membered ring together with the Si atoms to which these elements are bonded; the total number of carbon atoms in the R1R2R3 Si groups is 8 or more; and the R1R2R3 Si groups bond with the C-end of the amino acid or peptide in Y]. (2) A step for removing the protecting group of the N-end of the peptide obtained in step (1).
A hydraulic apparatus for stretching conductors for power lines comprising: a variable displacement hydraulic pump (10) that supplies by means of a hydraulic fluid a hydraulic motor (11) with a closed circuit connection; a displacement regulation system (15) of said hydraulic pump (10); a regulation system (20) of said hydraulic apparatus; characterised in that said regulation system (20) comprises: an inlet (21) that receives said hydraulic fluid that supplies said hydraulic motor (11); a first outlet (22) that supplies said displacement regulation system (15); a second discharge outlet (23); a flow limiter (30) connected to said inlet (21); a regulatable valve (31) connected to said flow limiter (30); a tap (36) connected between the outlet of said regulatable valve (31) and said first outlet (22); a measurement instrument (33) connected to the outlet of said regulatable valve (31), to measure the regulation pressure of said regulation system (20); a safety valve (34) connected to the outlet of said regulatable valve (31), the outlet of which is connected to said second discharge outlet (23).

No. of Pages : 8 No. of Claims : 7
The invention relates to a heat-exchanger element for connection to tubes of a heat exchanger, the heat-exchanger element (1, 29, 32) consisting of a plurality of components (13, 14) welded to each other, and said components (13, 14) being interconnected by electron beam welding and being part of a heat exchanger head.

No. of Pages : 12 No. of Claims : 12
A non-transitory storage medium stores instructions readable and executable by at least one electronic processor (20) to perform an imaging method (100). The method includes: obtaining multi-parametric magnetic resonance (MR) imaging data parameterized by a diffusion weighting or perfusion weighting parameter and a magnetization relaxation parameter for a region of interest (ROI) of a patient; determining volume fraction maps of the ROI for each of a plurality of tissue types from the multi-parametric MR imaging data; and controlling a display device (24) to display a tissue composition map comprising or generated from the determined volume fraction maps. FIG.1
The Patent Office Journal No. 23/2020 Dated 05/06/2020  

**Title of the invention**: GUIDING AN INTRAVASCULAR US CATHETER

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**Name of Inventor**: 1) HAASE, Christian  
2) SCHMITT, Holger  
3) PREVRHAL, Sven

**Abstract**:
The invention relates to a system and a method for guiding an intravascular ultrasound catheter device comprising an ultrasound probe to a potential lesion in a vascular tree (31). In the system, position information of the probe are provided for displaying to a user and/or for an automated processing of the position information. An evaluation unit is configured to receive a diagnostic image of the vascular tree, to determine values of at least one vessel parameter for a plurality of locations in the vascular tree, and to identify at least one location associated with an abnormal value of the at least one vessel parameter. Further, a mapping unit is configured to provide a visual indication (32) of the at least one location in the visualization of the vascular tree and/or to provide information about the at least one location for use in the automated processing of the position information.

No. of Pages: 23  No. of Claims: 14
(21) Application No.202047017100 A

(22) Date of filing of Application :21/04/2020

(23) Name of priority country :EPO


(51) International classification :A61B 6/00, G05D 1/00

(52) Priority Document No :17193060.5

(53) Priority Date :26/09/2017

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(57) Abstract :

An X-ray imaging system (10) for medical imaging is provided. The imaging system (10) comprises an X-ray source (12) for emitting X-rays, an X-ray detector (14) for detecting X-rays, at least one unmanned aircraft (16), and at least one controller (18) for controlling at least one of the X-ray source (12), the X-ray detector (14), and the at least one unmanned aircraft (16). The X-ray source (12) or the X-ray detector (14) is arranged on the at least one unmanned aircraft (16), wherein the X-ray imaging system (10) is configured to capture an X-ray image of an object (15) arranged between the X-ray source (12) and the X-ray detector (14).
A method (40) for identifying a mask for a patient includes: receiving (42) a plurality of images of a patient's face; analyzing (44) the plurality of images to generate a temporal model of the patient's face, determining (46) a mask for the patient using the temporal model of the patient's face, and identifying (48) the mask to the patient.
A dispenser apparatus may include a housing and a delivering structure at least partially enclosed by the housing. The dispenser apparatus may dispense desired sizes or pieces of tablets, pills, candy, mints, chewing gum or the like. The dispenser apparatus is refillable when a cover or lid is open.

No. of Pages: 11  No. of Claims: 30
An example integrated circuit (IC) package includes: a processing system (104) and a programmable IC (106) disposed on a substrate (1 18), the processing system coupled to the programmable IC through interconnect (1 12) of the substrate; the processing system including components (202...208) coupled to a ring interconnect (210), the components including a processor (202) and an interface controller (214). The programmable IC includes: an interface endpoint (218) coupled to the interface controller through the interconnect; and at least one peripheral (230) coupled to the interface endpoint and configured for communication with the ring interconnect of the processing system through the interconnect endpoint and the interface controller.
The disclosure relates to a method comprising: using information associated with a first application in a first device, said first application being configured to communicate with a corresponding second application in a second device via a communication link, and information associated with said communication link to determine a modified output; and causing said modified output to be provided to said corresponding second application via said communication link.
An automatic recognition and classification method for electrocardiogram heartbeat based on artificial intelligence, comprising:

processing a received original electrocardiogram digital signal to obtain heartbeat time sequence data and lead heartbeat data \(110\);
cutting the lead heartbeat data according to the heartbeat time sequence data to generate lead heartbeat analysis data \(120\);
performing data combination on the lead heartbeat analysis data to obtain a one-dimensional heartbeat analysis array \(130\);
performing data dimension amplification and conversion according to the one-dimensional heartbeat analysis array to obtain four-dimensional tensor data \(140\);
and inputting the four-dimensional tensor data to a trained LepuEcgCatNet heartbeat classification model, to obtain heartbeat classification information \(150\). The method overcomes the defect that the conventional method only depends on single lead independent analysis for result summary statistics and thus classification errors are more easily obtained, and the accuracy of the electrocardiogram heartbeat classification is greatly improved.
(51) International classification : B23B 39/16, B23B 49/00, B23Q 17/09
(31) Priority Document No : 2017-192171
(32) Priority Date : 29/09/2017
(33) Name of priority country : Japan
(86) International Application No : PCT/JP2018/034777
  Filing Date : 20/09/2018
(87) International Publication No : WO 2019/065437
(61) Patent of Addition to Application Number : NA
  Filing Date : NA
(62) Divisional to Application Number : NA
  Filing Date : NA

(57) Abstract:
A machining device (10A) includes: a first plate (54A) which, when cutting tool breakage detection is carried out on a machining head of a first machining unit (32A), is disposed between the first machining unit (32A) and a machining region (Z) and forms a new machining region (Za) along with a second machining unit (32B); and a second plate (54B) which, when cutting tool breakage detection is carried out on a machining head of a second machining unit (32B), is disposed between the second machining unit (32B) and the machining region (Z) and forms a new machining region (Zb) along with the first machining unit (32A).

No. of Pages : 37 No. of Claims : 8
A method for evaluating the suitability of a mobile device (112) having at least one camera (122) for the purpose of performing an analytical measurement based on a color formation reaction is disclosed. The method comprises: a) providing the at least one mobile device (112) having the at least one camera (122); b) providing at least one object (114) having at least one reference color field (116); c) taking at least one image (123) of at least part of the reference color field (116) by using the camera (122); and d) deriving at least one item of color resolution information by using the image (123), wherein the at least one item of color resolution information comprises one or more numerical values, which quantify the capability of resolving two or more colors.
The present invention relates to a composition for feeding a ruminant comprising i) a non-protein nitrogen compound, and ii) a coating surrounding the non-protein nitrogen compound, wherein said coating comprises one or more layers of a mixture of a saturated fat and a fatty acid, and said coating comprises from 60 wt.-% +/-10% to 85 wt.-% +/-10% of the saturated fat, e.g. hydrogenated fat, and from 15 wt.-% +/-10% to 40 wt.-% +/-10% of the fatty acid, each based on the total weight of the coating; a process for the preparation of said composition and its uses, e.g., for improving nitrogen utilization in a ruminant.
Methods, systems, and computer programs are presented for a smart communications assistant with an audio interface. One method includes an operation for getting messages addressed to a user. The messages are from one or more message sources and each message comprising message data that includes text. The method further includes operations for analyzing the message data to determine a meaning of each message, for generating a score for each message based on the respective message data and the meaning of the message, and for generating a textual summary for the messages based on the message scores and the meaning of the messages. A speech summary is created based on the textual summary and the speech summary is then sent to a speaker associated with the user. The audio interface further allows the user to verbally request actions for the messages.
**Title of the invention:** IMMUNOMODULATORY FUSION PROTEINS

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**Abstract:**
Provided is a fusion protein, e.g., a cytokine receptor fusion protein, e.g., an IL-10 trap, with a novel linker sequence to permit the fusion protein to functionally optimally, e.g., to permit a cytokine receptor portion of a cytokine receptor fusion protein to bind optimally to its target cytokine. The fusion protein, or an expression vector encoding for the fusion proteins, can be used to treat cell proliferative diseases and disorders, including certain forms of cancer and inflammatory disorders.

No. of Pages : 28  No. of Claims : 52
A dispensing mechanism for dispensing tablets (5) of a washing product into a washing machine, comprising: a storage module (1) containing a plurality of tablets (5) of washing product; and a dispensing module (2) or selectively dispensing the tablets (5) from the storage module (1); the storage module (1) being releasably attachable, in use, to the top of the dispensing module (2); the storage module (1) having an opening (7) in its lowermost surface and a sloped floor (6) to cause the tablets (5) to move towards the opening (7) under gravity; the dispensing module (2) having a screw dispenser (12) and a motor (16) to selectively rotate the screw dispenser (12) to convey the tablets (5) from a position beneath the opening (7) to an outlet opening (13) via which they are expelled from the dispensing module (2).
The imaging device changes the image-capture process thereof on the basis of data related to a captured image and is characterized in that when making the change, greater weight is assigned to data for a captured image involving instruction by a user than to data for an automatically-processed captured image.
Title of the invention: METHODS FOR DEFINING A NETWORK SERVICE DESCRIPTOR (NSD) FOR A NETWORK SERVICE (NS), AND NETWORK FUNCTIONS VIRTUALIZATION (NFV) ORCHESTRATOR (NFVO) USING SAID NSD

Abstract:
There are provided methods for defining a Network Service Descriptor (NSD) for a Network Service (NS), and Network Functions Virtualization (NFV) Orchestrator (NFVO) using said NSD. The NSD comprises zero, one or more of each of: a Virtualized Network Function (VNF) Descriptor (VNFD), a Physical Network Function (PNF) Descriptor (PNFD), a Network Service Descriptor (NSD), a Virtual Link (VL) Descriptor (VLD), and a VNF Forwarding Graph Descriptor (VNFFGD). One method comprising the step of defining at least one Connection Points (CP) Profile, wherein the CP Profile is referenced through a cpProfileId in a Network Forwarding Path Descriptor (NFPD) attribute of the VNFFGD, the CP Profile specifying a Connection Point Descriptor (CPD) or Service Access Point Descriptor (SAPD) for a given VnfProfile, PnfProfile or NsProfile.
Emulsions including an additized oil phase and a water phase additive blend are disclosed. The components of the additized oil phase and the water phase additive blend do not interact. The emulsions are useful as metalworking fluids. Methods of making and using the emulsions are also disclosed.
**Title of the invention:** CONFIGURATION OF NON-ZERO POWER INTERFERENCE MANAGEMENT RESOURCE (NZP-IMR) BASED CHANNEL STATE INFORMATION (CSI) REPORTING

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**Abstract:**
Certain aspects of the present disclosure relate to methods and apparatus for configuring a UE for CSI reporting based on ZP and NZP IMR.

No. of Pages : 31 No. of Claims : 30
Certain aspects of the present disclosure relate to communication systems, and more particularly, to techniques for mitigating inter-cell interference for uplink ultra-reliable low latency communications (URLLC).

No. of Pages : 33 No. of Claims : 30
Methods, systems, and devices for wireless communications are described. These wireless communications may include channel estimation procedures between communicating devices such as a base station and user equipment (UE). For example, the UE may receive, from the base station, a resource grant triggering a given reference signal configuration. Based at least in part on the type of reference signal configuration, the UE (e.g., and the base station) may determine a timing offset relative to the resource grant. The UE may transmit (and the base station may receive) the reference signal based at least in part on the timing offset. In some cases, the reference signal may be transmitted in a transmission opportunity of a set of transmission opportunities, where the set of transmission opportunities is determined based at least in part on the reference signal configuration.
Methods, systems, and devices for wireless communications are described. Some wireless communications systems may support hybrid automatic repeat request (HARQ) schemes to improve the likelihood that information is received correctly over a wireless communications link. In HARQ, when a transmitting device determines that a receiving device failed to successfully decode a transmission of information, the transmitting device may retransmit the information to the receiving device. In some cases, HARQ techniques may be used for communications associated with different types of services. In such cases, to keep the latency of communications within a latency budget for a particular type of service, wireless devices may utilize the techniques described herein to dynamically terminate HARQ retransmissions. For instance, a transmitting device may avoid retransmitting information when an amount of time that has elapsed since an original transmission of the information has exceeded the latency budget.
Certain aspects of the present disclosure generally relate to wireless communications and, more particularly, to methods and apparatus for rate-matching a stream of bits encoded using polar codes. An exemplary method generally includes determining a target coding rate, R_T, for transmitting a group of K information bits, based on a first coding rate, R_1, corresponding to a first target block error rate (BLER) for a first transmission of a first redundancy version (RV) of the packet and a second coding rate, R_2, corresponding to a second target BLER for a last transmission of a last RV of the packet; determining a circular buffer size, N, of a circular buffer for use in transmitting the first RV and the last RV of the packet; generating encoded information bits from the K information bits using a polar code having a mother code size of N; writing the encoded information bits to the circular buffer; determining a maximum number of retransmissions, based on a latency requirement for the packet; generating different RVs from the encoded information bits in the circular buffer, each RV based on a corresponding target BLER; and transmitting the first RV via a wireless medium.
(57) Abstract:
Provided is an optical imaging lens, successively comprising, from an object side to an image side: a first lens (E1), having a positive focal power and having a concave surface on the image side thereof; a second lens (E2), having a negative focal power and having a convex surface on the object side thereof; a third lens (E3), having a focal power and having a convex surface on the image side thereof; a fourth lens (E4), having a negative focal power and having a concave surface on the object side thereof; a fifth lens (E5), having a positive focal power and having a convex surface on the image side thereof; a sixth lens (E6), having a focal power; and a seventh lens (E7), having a negative focal power. An effective focal length f of the optical imaging lens and an entrance pupil diameter EPD of the optical imaging lens satisfy a relational expression $f/EPD = 1.80$, and the effective focal length f of the optical imaging lens and an air interval $T_{67}$ between the sixth lens (E6) and the seventh lens (E7) satisfy a relational expression $5.5 < f/T_{67} < 11.5$. The optical imaging lens can be applied to a portable electronic product, and is an optical imaging lens with a large aperture and an excellent imaging quality.

No. of Pages : 36 No. of Claims : 24
This machining device comprises: a support column (22) having a plurality of workpiece attachment surfaces; a first machining unit (32A) and a second machining unit (32B) that perform drilling on a workpiece fixed to the workpiece attachment surfaces; a third machining unit (32C) that performs tapping on the workpiece; an oil pan (13) that receives used coolant containing chips and the like, from the machining units; and a coolant tank (17). The oil pan (13) comprises, between the first machining unit (32A) and the second machining unit (32B) that perform drilling, a discharge port (60) that discharges the used coolant to the coolant tank (17).
According to certain embodiments, the present disclosure provides bispecific antigen-binding molecules comprising a first antigen-binding domain that specifically binds a Staphylococcus species target antigen and a second antigen binding domain that binds a complement component. In certain embodiments, the bispecific antigen-binding molecules of the present disclosure are capable of binding to the Staphylococcus species target antigen with an EC50 of about 10nM or less, and/or are capable of promoting complement deposition on the Staphylococcus species with an EC50 of about 10nM. The antibodies of the disclosure are useful for treating diseases in which inhibition or reduction of the growth of a Staphylococcus species is desired and/or therapeutically beneficial, for example, for treating staphylococcal infections including a skin infection, cellulitis, pneumonia, meningitis, urinary tract infection, toxic shock syndrome, endocarditis, osteomyelitis, bacteremia, or sepsis, or for preventing or treating a staphylococcus infection that occurs as a result of a surgical procedure.
The invention relates to a process for preparing a polyether polyol comprising: continuously feeding into a reactor which contains a composite metal cyanide complex catalyst and (i) a poly (oxyalkylene) polyol or (ii) a polyether polyol obtainable by the process according to the invention: (a) ethylene oxide, (b) a substituted alkylene oxide, (c) optionally a starter compound having a hydroxyl functionality of from 1 to 8, wherein the weight ratio of the total amount of ethylene oxide fed to the total amount of the substituted alkylene oxide fed is of from 50:50 to 95:5, and wherein the ethylene oxide concentration is below 13,000 parts per million by weight (ppmw) per minute during continuously feeding ethylene oxide, wherein the ethylene oxide concentration is defined as the weight of ethylene oxide in the reactor based on the total weight of the reactor contents.
The invention relates to an apparatus (144) and method for inter prediction of a sample value of a current full-integer pixel of a plurality of pixels of a current block of a current frame of a video signal. The apparatus (144) comprises a processing unit configured to: determine a motion vector of the current full-integer pixel on the basis of the current frame and a reference frame of the video signal and/or on the basis of a motion compensation model; determine for the current full-integer pixel a corresponding sub-integer pixel in the reference frame on the basis of the motion vector of the current full-integer pixel; generate on the basis of a predefined set of filter support pixels in the current frame a set of corresponding filter support pixels in the reference frame, wherein the predefined set of filter support pixels in the current frame comprises one or more neighboring sub-integer pixels of the current full-integer pixel; determine a respective sample value of the corresponding sub-integer pixel of the current full-integer pixel and the corresponding filter support pixels in the reference frame; and determine the inter predicted sample value of the current pixel in the current frame by applying a spatial high-pass filter to the sample value of the corresponding sub-integer pixel of the current full-integer pixel in the reference frame and to the sample values of the corresponding filter support pixels in the reference frame. Moreover, the invention relates to an encoding apparatus (100) and a decoding apparatus comprising such an inter prediction apparatus (144).
The present disclosure is generally directed to an agricultural formulation comprising an anucleated minicells and an anucleated cell-based platforms for encapsulation and scalable delivery of biologically active compounds. Disclosed herein are compositions for the stable and targeted delivery of biologically active compounds within achromosomal and/or anucleated cells onto and/or into a target cell. The present disclosure also provides methods of improving encapsulation and retention of biologically active compounds in achromosomal and/or anucleated cells and delivering biologically active compounds into a target cell.
The invention pertains to the field of adaptive cell immunotherapy. It provides with the genetic insertion of exogenous coding sequence(s) that help the immune cells to direct their immune response against infected or malignant cells. These exogenous coding sequences are more particularly inserted under the transcriptional control of endogenous gene promoters that are sensitive to immune cells activation. Such method allows the production of safer immune primary cells of higher therapeutic potential.
Various aspects of the present disclosure generally relate to wireless communication. In some aspects, a user equipment (UE) may receive an uplink grant that includes multiple total downlink assignment indexes (DAIs) corresponding to multiple DAI groups associated with the UE, wherein each of the multiple DAI groups is associated with a different set of component carriers used by the UE for carrier aggregation; and transmit (ACK/NACK) feedback for the multiple DAI groups based at least in part on the multiple total DAIs included in the uplink grant. In some aspects, a base station may determine multiple total DAIs corresponding to multiple DAI groups associated with a UE, wherein each of the multiple DAI groups is associated with a different set of component carriers used by the UE for carrier aggregation; and transmit the multiple total DAIs to the UE in an uplink grant. Numerous other aspects are provided.
Methods (1500, 1600) and apparatuses (700, 900, 1700) for video coding and decoding are provided. The method of video encoding (1500) includes determining (1510) a set of parameters for illumination compensation associated with a first motion compensated reference block of a block in a picture of a video based on a function of a set of samples of the first motion compensated reference block and a set of samples of a second motion compensated reference block of the block, processing (1520) a prediction of the block based on the set of parameters, the prediction being associated with the first motion compensated reference block and encoding (1530) the block based on the processed prediction. A bitstream formatted to include encoded data, a computer-readable storage medium and a computer program product are also described.
A tangential multi-pipeline cyclone dust remover for primary dust removal of blast furnace gas comprises a sealed barrel body (5). The top center of the barrel body (5) is in communication with a gas exhaust tube (4), the bottom of the barrel body (5) is provided with a dust collection bin (8), the upper part of the barrel body (5) is in communication with at least three gas inlet tubes (3) that uniformly distributed around the barrel body (5). The gas inlet tubes (3) are tangential to the outer circle of the barrel body (5), and are in communication with a blast furnace raw gas outlet. A reflection body (6) and a reflection cover (7) that are coaxial with the barrel body (5) are disposed at the lower part in the barrel body (5). The reflection body (6) is in the shape of a cone that is narrow in the upper part and is wide in the lower part or is a cone-column combination. The reflection cover (7) is a conical cover that is wide in the upper part and is narrow in the lower part, is provided with openings in two ends, and encloses the reflection body. A ring-shaped gap for ash is formed between the conical surface of the reflection body (6) and the conical surface of the reflection cover (7). The reflection cover (7) is fixed along the inner wall of the barrel body (5), and the reflection body (6) is mounted on the reflection cover (7) or the barrel body (5) by means of a supporting member. The dust remover has a wide flow-speed range, has a stable cyclone central region, has a high dust removal efficiency, has a simple structure, occupies a small floor space and is convenient to mount.
The invention relates to a drive system (1) for driving a crusher (50) of a material comminuting system with a main drive (2) and a transfer gearbox (10) which is driven by the main drive (2), wherein the transfer gearbox (10) drives at least one generator (20) and a first hydraulic pump (21) which is connected switchably to the transfer gearbox (10). It is provided here that a switchable fluid coupling (30) is connected into the transmission path from the transfer gearbox (10) to the crusher (50), that the switchable fluid coupling (30) and a pump (31) are flow-connected to one another in a pumping circuit, and that a fluid can be fed to the switchable fluid coupling (30) by means of the pump (31). The invention also relates to a method for operating a crusher of this type. The drive system makes gentle operation of the crusher with a low number of required components possible.
The present invention relates to a factor VIII or factor IX gene knockout rabbit, a method for preparing the same and a use thereof and, more particularly, to a transgenic rabbit whose factor VIII or factor IX gene has been knocked out through the CRISPR/Cas9 system, a method for preparing the same and a use thereof. According to the present invention, in the transgenic rabbit, whose factor VIII and/or factor IX gene has been knocked out, the functions of factor VIII and/or factor IX, which are proteins that perform critical functions for the development of hemophilia, are inhibited, such that the transgenic rabbit is useful for the development of hemophilia treatments.
Provided is a decorative sheet which has high heat shielding property and excellent property of concealing a substrate, and in which dark color tone is easily adjusted. The decorative sheet has, on an infrared-reflective substrate, a decoration layer including a solid printed layer and a pattern layer, wherein the solid printed layer contains an infrared-transmissive or infrared-reflective inorganic pigment and a binder resin, and the pattern layer comprises: three or more compounds selected from the group of organic pigments consisting of quinacridone, isoindolinone, nickel-azo complex, and phthalocyanine; and a binder resin.
The Patent Office Journal No. 23/2020 Dated 05/06/2020

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(51) International classification :
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C07C 11/06, C07C 11/24

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(33) Name of priority country : U.S.A.

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

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

(57) Abstract :
Methods of producing at least one of ethylene and propylene. The methods may include contacting a mixture of C4+ compounds with a catalyst to convert at least a portion of the C4+ compounds to at least one of ethylene and propylene. The catalyst can include a phosphorus treated zeolite, and the mixture of C4+ compounds can include at least one of t-butyl alcohol and methyl t-butyl ether.

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

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A lighting module assembly (1000) comprising a stack of optical elements (1001), a plurality of elongated arms (1010, 1020, 1030, 1040) forming a frame (1005) for supporting the stack of optical elements (1001), at least one arm (1010) having a cavity (1015) extending in an elongation direction of the arm (1010), and at least one lighting element (1090). The cavity (11015) is arranged for receiving the at least one lighting element (1090) and for directing the light (1006) of the lighting element (1090), in use, to the stack (1001), and each elongated arm (1010, 1020, 1030, 1040) is formed by a first elongated arm part (1011). The stack (1001) comprises a diffuser (1002), a light guide plate (1003), and a reflector (1004). At least one first elongated arm parts (1011) is integrally formed with at least one of the diffuser (1002), and the light guide plate (1003).
**Title of the invention:** CAMERA LENS GROUP

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<th>(51) International classification</th>
<th>:G02B 13/00</th>
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<tr>
<td>(31) Priority Document No</td>
<td>201810566935.4</td>
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<td>20/11/2018</td>
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<td>NA</td>
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**Abstract:**
A camera lens group. The camera lens group comprises, in order from an object side to an image side along an optical axis: a first lens (E1), a second lens (E2), a third lens (E3), a fourth lens (E4) and a fifth lens (E5). The first lens (E1) has a negative optical power; the second lens (E2) has a negative optical power; the third lens (E3) has an optical power, and an object-side surface (S5) thereof is a concave surface; the fourth lens (E4) has a positive optical power, an object-side surface (S7) thereof is a convex surface (S7), and an image-side surface (S8) is a convex surface; the fifth lens (E5) has an optical power; and a half of the maximum field of view (HFOV) of the camera lens group satisfies 0.8 < tan(HFOV/2) < 1.2.

No. of Pages : 41  No. of Claims : 38
Title of the invention : PITCH CONTROL SYSTEM

| International classification | :B64C 11/34 |
| Priority Document No         | :201710917712.3 |
| Priority Date                | :25/09/2017 |
| Name of priority country     | :China |
| International Application No | :PCT/CN2018/100621 |
| Filing Date                  | :15/08/2018 |
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| Patent of Addition to Application Number | :NA |
| Filing Date                  | :NA |
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Name of Inventor :
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Abstract :
A pitch control system characterized by a hub (12) with at least two blade-housings (2) on the hub (12) that are disposed around the hub axis (40). The blade-housings (2) have corresponding blades (1) that engage with them. The blades (1) spiral along housing-longitudinal axis (41) toward and away from the hub axis (40) about a segment of helical path to effect a change in the pitch of each blade (1). One or more elastic members (3) draw the blades (1) toward the hub axis (40), either directly or indirectly. There are pitch mechanisms (4) effective to facilitate blades to spiral around housing-longitudinal axis (41). A blade (1) will spiral away from the hub axis (40) when the centrifugal force exerted on the blade (1) exceeds the opposing elastic force in the housing-longitudinal direction (neglecting other forces). Conversely, Blades (1) spiral toward the hub axis (40) when said centrifugal force is less than said elastic force. There is an imaginary plane (42) orthogonal to the hub axis (40). Housing-longitudinal axis (41) have angles with respect to the imaginary plane (42) of not more than 30 degrees.
Title of the invention: SEPARATING DEVICE AND USE OF A SEPARATING DEVICE

Abstract:
The present disclosure relates to a separating device for removing solid particles from fluids, and to the use of said separating device for removing solid particles from fluids, especially in oil and gas extraction wells. The separating device comprising: a tubular-shaped filter element (3) having an upper end and a lower end, a perforated pipe (1) which is co-centric with and located inside the filter element (3), an end cap (5, 6) at the upper end and an end cap at the lower end of the filter element (3), the end cap being co-centric with the perforated pipe (1), wherein the end cap (5, 6) at the upper end and/or at the lower end of the filter element (3) is fixed on the perforated pipe (1) in axial direction in a form-fitting manner.

No. of Pages: 16 No. of Claims: 14
The invention relates to method for operating a flow control entity (100) which is configured to control a data packet flow in a network in which at least one virtualized gateway (40) and at least one other gateway (30) exchange routing data, the method comprising:

- receiving a message from a node (50) located in an interconnection used by the at least one virtualized gateway (40) and the at least one other gateway (30) to exchange routing data by which one the gateways informs the other about new routes and withdrawn routes for data packet flows which traverse the at least one virtualized gateway and the at least one other gateway,
- extracting the routing data from the received message, extracted information comprising at least information about the new routes and withdrawn routes traversing the at least one virtualized gateway or the at least one other gateway,
- translating the extracted routing data into routing information used to control the data packet flows at the at least one virtualized gateway,
- transmitting the routing information to an infrastructure managing entity (80) configured to manage a virtualized infrastructure of the network.

No. of Pages : 30 No. of Claims : 29
The present invention provides a method for drying a polyimide paste which contains an organic solvent and a polyimide resin dissolved in the organic solvent, and is cured into cured polyimide by drying and heating. The method is characterized by comprising: a step for applying the polyimide paste to a surface of a substrate; a step for applying a solvent containing a polar substance to at least a surface of a portion of the substrate to which the polyimide paste has been applied; and a step for, after applying the solvent containing the polar substance, drying the polyimide paste and the solvent containing the polar substance. As a result, provided is a method for drying a polyimide paste which can maintain productivity and printed shape.
The invention relates to a support barrel (1) for an electrical lead (55), in particular for a coaxial cable. In order to provide a support barrel (1) that is mechanically stable and that prevents strands from entering during mounting on a shielded lead, it is provided according to the invention that two barrel ends (5, 7) that are opposite each other in a circumferential direction (U) of the support barrel (1) engage in each other and form a positive engagement acting in the circumferential direction (U).

No. of Pages : 11 No. of Claims : 13
An abrasive article having a removable support sheet having a first major surface. An image layer containing inks applied over the first major surface. A polyurethane backing layer having a first major backing surface located adjacent to the image layer and a second major backing surface opposite the first major surface. A functional layer comprising an abrasive layer applied to the second major surface; the abrasive layer comprising a make coat, abrasive particles and a size coat.

No. of Pages : 32 No. of Claims : 15
The present invention pertains to a fitting. One embodiment of the fitting has a configuration in which shoji (14, 15) is supported by a frame (12) so as to be able to slide, wherein an intermediate front piece (31) of the lower frame (12b) has an opening 34 in a portion in the longitudinal direction thereof that is opened to the top end face (31a) of the intermediate front piece (31) and by which the outdoor side and the indoor side of the intermediate front piece (31) communicate. An attachment member (35) that has a rail section (35a) on which the shoji (14) travels and an intermediate projecting piece (35b) that is erected on the top end face (31a) of the intermediate front piece (31) by being disposed along the top end face (31a) of the intermediate front piece (31) in a state that straddles the opening (34) is mounted to the lower frame (12b), and the intermediate projecting piece (35b) is a face that abuts an airtight member (55) mounted to the shoji (14).

No. of Pages : 23 No. of Claims : 6
This vehicle external communication apparatus is provided with: a giving-way intention assessment parameter learning unit (20) that preliminarily learns, on the basis of a learning database, a relation among the status of a giving-way intention which is a pedestrian's intention to give way to a vehicle, the motion of the head of the pedestrian, and the position of the pedestrian, generates a giving-way intention assessment parameter (31) which is learning data in which the motion and the position are associated with the status of the giving-way intention, and stores the giving-way intention assessment parameter (31) in a storage unit (30); a giving-way intention assessment unit (40) that assesses the giving-way intention of an actual pedestrian on the basis of an image of the head of the actual pedestrian and the position of the actual pedestrian acquired from a peripheral state acquisition unit (10) and the giving-way intention assessment parameter (31) stored in the storage unit (30); and a display control unit (50) that determines whether or not to display a display content to the actual pedestrian, the details of the display content, and the display position, on a road, of the display content, on the basis of the assessment result of the giving-way intention of the actual pedestrian, and controls a display (60) on the basis of the determination.
**Title of the invention:** DECORATIVE SHEET AND DECORATIVE MATERIAL USING SAME

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<td>Priority Document No</td>
<td>2017-187138</td>
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<td>International Publication No</td>
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*Provided is a decorative sheet capable of expressing a design excellent in dark color degree while satisfying heat shielding property. The decorative sheet has, on an infrared-reflective substrate, a decoration layer including a solid printed layer and a pattern layer, wherein the solid printed layer contains an infrared-reflective or infrared-transmissive pigment and a binder resin, and the infrared-reflective or infrared-transmissive pigment comprises: (A) three or more kinds of compounds selected from the group of pigments consisting of quinacridone, isoindolinone, nickel azo complex, and phthalocyanine; or (B) one or more compounds selected from the group of pigments consisting of a composite oxide containing manganese and at least one metal element other than manganese, an azo-azomethine compound, and a perylene compound, and wherein at least a part of the pattern layer contains carbon black and a binder resin.*

No. of Pages : 37 No. of Claims : 14
An electronic device according to various embodiments of the present invention comprises: a housing including a front surface and a rear surface facing the direction opposite to the front surface; a support plate rotatably coupled to the rear surface of the housing, and rotating around a first axis from a position in which the support plate is in close contact with a partial area of the rear surface to an open state in which the support plate forms an angle with respect to the rear surface; and a hinge structure having at least a portion accommodated inside the housing, and rotatably coupling the support plate to the housing. Therein, the hinge structure can comprise: a first guide member mounted on and fixed to the inner side surface of the housing; a second guide member mounted on and fixed to one surface of the support plate; and a gear module for linking the first guide member and the second guide member, wherein the first axis can be positioned on the rear surface on the outside of the housing. The electronic device can vary according to embodiments.
Title of the invention: ISOTHIOCYANATE CONTAINING BRASSICACEAE PRODUCTS AND METHOD OF PREPARATION THEREOF

Abstract:
The present invention relates to methods for producing isothiocyanate containing products from Brassicaceae material and lactic acid bacteria for use in such methods. The present invention also relates to isothiocyanate containing products from Brassicaceae material produced by such methods.

No. of Pages: 104 No. of Claims: 54
A method for discontinuous reception (DRX) is disclosed. The method includes receiving, by receiving circuitry of a User Equipment (UE), a Radio Resource Control (RRC) message having a DRX Start Offset (drx-StartOffset) and a DRX Slot Offset (drx-SlotOffset), determining, by processing circuitry of the UE, a start subframe based on the drx-StartOffset, and determining, by the processing circuitry, a starting time of a DRX On-Duration Timer (drx-onDurationTimer) in the start subframe based on the drx-SlotOffset.
**Title of the invention**: COORDINATING CURRENT STABILIZING CONTROL WITH TAP CHANGER CONTROL

(51) **International classification**: H02J 3/36, H02M 7/757
(31) **Priority Document No**: NA
(32) **Priority Date**: NA
(33) **Name of priority country**: NA
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(87) **International Publication No**: WO 2019/068311
(61) **Patent of Addition to Application Number Filing Date**: NA NA
(62) **Divisional to Application Number Filing Date**: NA NA

(57) **Abstract**:
In a power transmission system comprising two parallel converters operating as inverters (101a, 101b) at a first end of a dc link (116a, 116b) control units (108, 110a, 110b, 112a, 112b) determine that a first inverter (101a) is to control the dc link voltage, controls the extinction angle of the inverters via tap changer control, controls, based on the extinction angle being in the extinction angle window, the dc voltage of the first inverter, controls the second inverter to follow the voltage of the first inverter, and applies a current stabilizing control scheme on the inverters based on the inverters operating in the extinction angle window.

**No. of Pages**: 36 **No. of Claims**: 13
Certain aspects of the present disclosure relate to methods and apparatus for resource allocation for physical uplink control channel (PUCCH) used to carry uplink control information (UCI). Certain aspects provide a method for wireless communication by a user equipment. The method generally includes receiving downlink control information (DCI) comprising one or more resource indicator (RI) bits configured to indicate to the user equipment a subset of resources available for transmitting UCI in a PUCCH transmission, wherein the DCI is received on one or more resources of a first physical downlink control channel (PDCCH) transmission. The method further includes identifying resources within the subset indicated by the RI bits to transmit the UCI based on an implicit mapping of PDCCH resources to PUCCH resources and the one or more resources of the first PDCCH transmission. The method further includes transmitting the UCI using the identified resources.

No. of Pages : 35 No. of Claims : 52
The present invention provides water-based coatings that provide liquid resistance when applied to various substrates. The coatings are particularly suitable for cellulosic substrates such as paper or paper board. In addition to liquid resistance, the coatings have good heat sealability, and are resistant to roll blocking. Preferably, the coatings are recyclable and/or repulpable with the substrates to which they are applied. The coating compositions comprise one or more polymer binders, and one or more particles. Preferably, at least one polymer binder has a glass transition temperature (Tg) less than 10°C. Preferably, at least one polymer binder has a heat seal onset temperature of less than 200°C. Preferably, at least one particle has a mean particle size greater than 4 µm. It is also preferable that the particles have a melting point greater than 60°C.
A display device comprises a waveguide configured to guide light in a lateral direction parallel to an output surface of the waveguide. The waveguide is further configured to outcouple the guided light through the output surface. The display device additionally comprises a broadband adaptive lens assembly configured to incouple and to diffract therethrough the outcoupled light from the waveguide. The broadband adaptive lens assembly comprises a first waveplate lens comprising a liquid crystal (LC) layer arranged such that the waveplate lens has birefringence (Dn) that varies in a radially outward direction from a central region of the first waveplate lens and configured to diffract the outcoupled light at a diffraction efficiency greater than 90% within a wavelength range including at least 450 nm to 630 nm. The broadband adaptive lens assembly is configured to be selectively switched between a plurality of states having different optical powers.
This disclosure relates to a correspondence indicating and determining method and apparatus, a base station, a user equipment, and a computer-readable storage medium. The correspondence indicating method comprises: determining a beam to be sent; generating indication information, the indication information comprising the number of beam groups and identifiers corresponding to beams in each beam group sending a synchronization signal block (SSB), wherein the identifier corresponding to the beam to be sent is used for indicating a correspondence between the SSB in the corresponding beam group and remaining minimum system information (RMSI); and sending to a user equipment the SSB corresponding to the beam to be sent and the indication information. According to embodiments of this disclosure, the correspondence between the RMSI and the SSB can be indicated without increasing bit overhead.
A gas-liquid separator includes a housing. The housing includes an inlet structured to receive a blowby gas stream from a crankcase, a cleaned air outlet, and a liquid outlet. A cover is disposed downstream from the inlet and upstream from the liquid outlet. The cover includes a baffle disposed over the blowby gas stream flow path from the inlet. The blowby gas stream impacts the baffle and separates liquid and aerosol contained in the blowby gas stream. A flange extends substantially axially downward from a side of the baffle. The flange is tapered substantially axially downward forming an inner surface. The inner surface is structured to route the separated liquid toward the liquid outlet. The inner surface biases separated liquid away from shedding toward the cleaned air outlet.
(54) Title of the invention : HETEROCYCLIC COMPOUNDS AS PRMT5 INHIBITORS

| (51) International classification | (71) Name of Applicant :
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| :WO 2019/102494 | 9) NAGARAJU, Nagendra |

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| :NA | |

| Filing Date | |
| :NA | |

(57) Abstract:
The compounds of Formula I, Formula Ia, and Formula Ib are described herein along with their analogs, tautomeric forms, stereoisomers, polymorphs, hydrates, solvates, pharmaceutically acceptable salts, pharmaceutical compositions, metabolites, and prodrugs thereof. These compounds inhibit PRMT5 and are useful as therapeautic or ameliorating agent for diseases that are involved in cellular growth such as malignant tumors, schizophrenia, Alzheimer's disease, Parkinson's disease and the like.

No. of Pages : 246 No. of Claims : 22
(54) Title of the invention: RAILCAR TRUCK ROLLER BEARING ADAPTER-PAD SYSTEMS

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(57) Abstract:
A railcar truck and adapter pad system for placement between a roller bearing and side frame pedestal roof of a three piece railcar truck. Many different features of the pad and/or the adapter pad interface are configured to improve stiffness characteristics to satisfy both curving and high speed performance of the railcar truck.

No. of Pages: 141 No. of Claims: 41
A method of forming a particle includes, in a disperse phase within an aqueous suspension, polymerizing a plurality of mer units of a hydrophilic monomer having a hydrophobic protection group, thereby forming a polymeric particle including a plurality of the hydrophobic protection groups. The method further includes converting the polymeric particle to a hydrophilic particle. [Fig-1]
RELAYING USER COMMUNICATION DEVICE ENABLING RRC, NAS CONNECTIONS, USER COMMUNICATION DEVICE, BASE STATION, SYSTEM, METHOD, AND NON-TRANSITORY COMPUTER READABLE MEDIUM STORING A PROGRAM

A system is disclosed in which a UE-Relay receives, from a user communication device, a message requesting the provision of a communication link (e.g., a Layer 2 link) between the user communication device and a network serving the user communication device. The UE-Relay communicates with its core network, responsive to the received message, to establish the communication link from the user communication device to a base station remote from the UE-Relay; and relays data, between the user communication device and the base station using the communication link.

CONTINUED TO PART- 2