CONTINUED FROM PART- 2

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(54) Title of the invention : COOLING AND HEATING WATER BY USING THERMEOLECTRIC MODULE

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<th>(51) International classification</th>
<th>(71) Name of Applicant :</th>
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(57) Abstract :
Nowadays different types of cooling systems are available in the market. They can be classified as air cooled, water cooled, refrigerated, and thermoelectric cooled. Most of the electricity generation relies on the coal power plants, which add greenhouse gases to the atmosphere, is the major cause of global warming. Our design approach is to make a Thermoelectric Water Dispenser system which is power efficient, environment friendly and can cool and hot water at the same time. We are trying to reduce the cost and area requirement for cooling system. Thermoelectric devices (TED) have found their way into a variety of cooling applications. Packed with two to hundreds of p and n types of BiTe base semiconductors and utilizing the Peltier cooling and heating principle, the BiTe substrate can transport heat from the semiconductor’s cold junction to hot junction without any moving parts. When a TED is converting thermal energy to electrical energy, the module is known as a thermoelectric generator (TEG). Alternatively, when converting from electrical energy to heat pumping energy, the module is called a thermoelectric cooler (TEC). In humid countries water cooling is significantly important. As we know very few conventional water dispenser are available in the market and they are very expensive. In Laboratory and industrial instrument whenever we use conventional cooling devices have many drawbacks pertaining to energy efficiency. These factors indirectly point to the impending scenario of global warming. As most of the electricity generation relies on the coal power plants, which add greenhouse gases to the atmosphere is the major cause of global warming. Although researches are going on, better alternatives for the CFC refrigerants is still on the hunt. By using other efficient cooling mechanisms we can save the electricity bills and also control the greenhouse gases that are currently released into the atmosphere. Thermoelectric (TE) property was discovered about two centuries ago. Thermoelectric devices have only been commercialized during recent years. The applications of TE vary from small refrigerators and electronics package cooling to Avionic instrumentation illumination control and thermal imaging cameras. Lately a dramatic increase in the applications of TE coolers in the industry has been observed. It includes water chillers, cold plates, portable insulin coolers, portable beverage containers and etc.

No. of Pages : 12 No. of Claims : 5
This invention relates to beneficial pharmaceutical compositions for use in the treatment of pain and inflammation in mammalian organism, said composition comprising: (i) local skeletal muscle relaxant Cyclobenzaprine or its pharmaceutical acceptable salts and (ii) analgesic, non-steroidal anti inflammatory Diclofenac or its pharmaceutical acceptable salts as active ingredients, wherein (iii) the said preparation is in emulsion-gel form applied topically and contains absorption and blood flow enhancers.
This invention relates generally to a system and method for services management through interactive participation of users and service providers. The present invention, provide platform for services management through interactive participation and more particularly to identification and selection of service providers for required services and other activities management relative to service industry where several remote users can simultaneously participate and attend the needs of people at large securing services from professionals and industry in an organized manner.
Title of the invention: A REMOTELY CONTROLLABLE DEVICE

Abstract:
A remotely controllable device of present invention enables its user to use any random conventional remote control to operate the household electrical loads such as lights, fans or any other appliance. It comprises an infrared receiver or a RF communication module or both, a microcontroller programmed with the main function to read different types of remote controls and regulate the output power, an AC to DC converter to power the device from the mains power line, one or more indicators and one or more switching elements. The device of present invention also eliminates the problem of unintentionally operating the device if the same remote was being used for its own appliance. The Invention provides a way to manually control the load as well. The present invention is disclosed here in various types of embodiments according to different types of loads such as ceiling fan, LED bulb and tube-light.
The invention relates to a new evaporative cooling system with multi force air induction and exit. The said evaporative system comprises a primary structure, having five parts, a central part of chimney shape with little convergence-divergence, the four other parts of cylindrical and/or inverted conical of height 30 to 100 metres overall structures are located and joined sides to the said central/vertical structure. A four number of angular cylinder and/or invert cones shapes are located at 15 metre to 40 metre height from bottom surrounding the main central vertical structure. A liquid jet technology based air motion nozzles placed in the said angular/inverted cylinder. The outlets of all said four zones are opening into the said central vertical zone. The bottom, having diameter 30 to 55 metres, of the said vertical structure is totally and/or partially closed. The said four zones are with internal spray grid arrangement and are connected to hot water return line. The bottom of the said whole structure is cold water basin at totally below ground level or partially below ground and partially above ground as per the availability. REFERENCE FIGURE II
The present invention provides a building block for constructing a passage in a building for passing water pipeline, electric cables, gas pipelines, internet cable, set top box cables, and the like. The building block is having at least one channel extending across a body of the building block. The building block further has a lid for closing and opening the channel. According to the present invention, a plurality of building blocks when arranged in predefined sequence in at least a wall, roof and flooring of the building, pathways, it creates the passage for circulating wiring or pipelines therethrough and the lid can be open for maintenance purpose thereby preventing structural damage to the building. The building block has an advantage of inbuilt channel with removable lid, which reduces the time in cutting and drilling in the wall.
ENHANCEMENT OF CONDUCTIVITY IN LITHIUM GARNET SOLID-ELECTROLYTE VIA ADDITION OF IONIC SALT

ABSTRACT
Enhancement of Conductivity in Lithium Garnet Solid-Electrolyte via Addition of Ionic Salt. The present invention relates to Enhancement of Conductivity in Lithium Garnet Solid-Electrolyte via Addition of Ionic Salt selected from at least one of 1-butyl-3-methylimidazolium hexafluorophosphate also known as BMIM[PF6] and Lithium bis(trifluoromethane sulfonyl) imide [LiTFSI]. The method of addition of ionic salt is exclusive of heating or sintering as is conventionally known.

No. of Pages : 10 No. of Claims : 8
The Present Invention Disclose a Revers Osmosis Based Water Purifier Having a Maintain TDS Level In Purifier Water & Also Save The Water In Case Of Moderate Level Of TDS In Raw Water.
Title of the invention: A SYSTEM & METHOD TO HASTEN SECURED, INCESSANT DISTRIBUTION OF MULTIMEDIA CONTENT TO LAST MILE QUASI-STATIONARY SUBSCRIBER USING API BASED ON OS OF DRM COMPATIBLE DISPLAY DEVICE.

Abstract:
The present invention relates to MBoost accelerator system. The system offers fast, economical, copyrighted, real time fresh content through single system and thereby avoids usage of multiple devices for accessing various multimedia contents. MBoost accelerator system also serves as platform to display customized advertisement concurrently and economically. The MBoost accelerator system offers speedy, secured, scalable, multimedia content delivery to subscribers in managed and unmanaged networks, with the ability to reach any screen, any time and at any location.

No. of Pages : 24 No. of Claims : 17
(54) Title of the invention : INTC-SYSTEM: INTELLIGENT NETWORK FOR TRAFFIC CONTROL SYSTEM: STOLEN VEHICLE DETECTION, EMERGENCY VEHICLE CLEARANCE, DYNAMIC TRAFFIC CONTROL, AUTOMATIC RULE BREAK FINE COLLECTION SYSTEM.

(57) Abstract:
This paper presents Intelligent Network for Traffic Control System. The network is used to pass the traffic. The system uses machine learning for giving the dynamic count to the Traffic System. Emergency Vehicle Clearance & Automatic Fine Collection are the sub modules of the System. Each individual vehicle is equipped with Infrared Frequency Identification (RFID) tags i.e. attached to vehicle at the time of manufacture to particular location, which makes it impossible to destroy or remove. The Infrared (IR) Sensors are used to generate the count of vehicles that passes the signal. The system maintains huge amount of data of each vehicle at the server machine. The Green Light Duration is depending upon number of vehicles. The traffic rule break collection is collected automatically through RFID tag. The person, who breaks the rule, gets the mail or message from the system. The IR sensors are used for detecting rule break and the CCTV camera will automatically captured the movement. The Rule Breaker gets the mail which includes the information like, Amount deducted and captured image at the time of rule break.
Title of the invention: THE DEVICE FOR GENERATION OF ELECTRICITY USING PENDULUM

Abstract:
The device for generating electricity by using pendulum to supply power to a load. This device comprises the oscillation of pendulum which converts mechanical energy which is further converted into electrical energy which is supplied to the load.

No. of Pages: 14 No. of Claims: 10
A system to create a unique postal digital address code for a physical location located in a geographical location is disclosed. The system receives Pincode pertaining to the geographical location and map information pertaining to the physical location, and creates a unique postal digital address code for the physical location based on parsing the Pincode and received map information. The unique postal digital address code is alphanumeric, wherein a first part of the unique postal digital address code is representative of a postal circle, a postal district, and a delivery post office as obtained from the parsed Pincode, and wherein a second part of said unique postal digital address code is representative of a cardinal direction, an area landmark/area name, and an outward sequence number as obtained from the map information. The postal digital address code created is logically structured so as to be very user friendly and easily deployable.
Title of the invention: AN APPARATUS FOR WATER TREATMENT TO ACTIVATE WATER USING ATMOSPHERIC PRESSURE HYBRID PLASMA SYSTEM

Abstract:
ABSTRACT AN APPARATUS AND METHOD FOR PRODUCING ACTIVATED FLUID The present disclosure relates to a plasma apparatus comprising of hybrid plasma sources such as pencil plasma torch and dielectric barrier discharge (DBD) based plasma source. More particularly, the present disclosure is related to a plasma apparatus capable of generating plasma treated active fluid. The pencil torch is powered with power supply of 50 Hz/100 kHz to generate intense air plasma plume while the DBD plasma is created using a specialized power source.

No. of Pages : 23 No. of Claims : 14
The invention relates to a method and system for providing optimal dynamic content of a service by receiving a first set of parameters and a second set of parameters pertaining to the service by a central controller; determining a dynamic content for the service based on the first and the second sets of parameters; transmitting the dynamic content to at least one service delivery terminal; transmitting the dynamic content to a controller in an event of acceptance of the dynamic content by the at least one service delivery terminal, alternatively modifying and transmitting modified dynamic content to the central controller; receiving a request for availing the service; performing a comparison between the request and one of the dynamic content and the modified dynamic content to obtain the optimal dynamic content and transmitting the obtained optimal dynamic contents to the end-user. [Figure 1]
| (54) Title of the invention : DELAYED RELEASE COMPOSITION OF POORLY WATER SOLUBLE DRUGS |
|------------------------------------------|---------------------------------|
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(57) Abstract :
Provided herein is a delayed release composition of poorly water soluble drug for oral administration comprising a core comprising a therapeutically effective amount of drug or pharmaceutically acceptable salts thereof, one or more enteric polymers, one or more pharmaceutically acceptable carrier and one or more enteric polymer surrounding the core, wherein the pharmaceutical composition exhibits improved solubility of drug in intestinal The total drug to polymer ratio may be from about 1:1 weight by weight to about 1:5 weight by weight. Also provided is a method of preparing such composition.

No. of Pages : 27 No. of Claims : 5
The automatic bike indicator turn off system is a micro controller based system. This system is designed to avoid wrong communication message transferred because of keeping the indicator on even after it is not needed. The automatic bike indicated turn off system is the solution to this problem in a very cheaper way as compared to the current system being used.

To automatic bike indicator turn off system works in a very simple manner having two cases involved in working. Once the indicator is turned on, the system checks whether turn has been taken or not, this is done i.e monitored by controllers for 10 seconds. If turn not taken in 10 seconds controller turn off the indicator automatically. Secondly when indicator turned on and turn taken either right or left, the reed switch sends the signal to controller to turn off particular indicator after 2 seconds.

The system is very reliable but only disadvantage is mounted assembly is involved. The working is simple and cheap to implement. This system will avoid the wrong message being passed to the person coming from back or front on the road and avoid any accidents.
The invention describes an efficient platform for antibody manufacturing and formulation that provides i) cell culture process with improved feeding strategy resulting in high antibody titer between 2 gm/L to 5 gm/L; ii) improved purification process showing optimal percentage recovery, high purity monomer content, minimum aggregation/particulate formation, minimum impurity levels; and iii) high concentration stable liquid formulation with optimal osmolality and low viscosity across different temperature excursions and devoid of aggregation. The preferred antibodies include IgG1 monoclonal antibody specific to the Dengue virus epitope in domain III of the E protein and IgG1 monoclonal antibody specific to the rabies virus surface G glycoprotein.
Title of the invention: A SYSTEM FOR MONITORING ELECTRICAL DEVICE AND A METHOD THEREOF

Abstract:
A system for monitoring electrical devices and a method thereof for monitoring an electrical device and a method thereof is provided, wherein at least one primary unit is connected with an input side and/or an output side of the electrical device and configured to obtain electrical parameters of the electrical device. A secondary unit is connected with each primary unit and configured to receive the electrical parameters obtained by the primary unit, store the electrical parameters to form a repository of previously obtained electrical parameters, compare the electrical parameters with previously obtained electrical parameters to determine any deviation in the electrical parameters and correlate the deviation in electrical parameters with a list of impending faults to identify any impending fault. The secondary unit based upon the correlation of the electrical parameters generates a summary and/or alert indicative of state of the electrical device by way of alerts, notifications etc. Reference Figure 1

No. of Pages: 24 No. of Claims: 13
Title of the invention: PROCESS OF HARVESTING AND DRYING MOTILE AND NON MOTILE ALGAL FORMS

Abstract:
A process of harvesting and drying of motile and non-motile algal forms is disclosed. The process comprises mixing of ionised protonated water in the fraction of the flagellate algae growth media to form a mixture containing uniformly ionised protonated water and the sprayed or injected fraction of the flagellate algae growth media. The wet as well as dried algal biomass produced by the process of the present invention is useful in many applications in biotic and abiotic needs for the mankind, plants, animals and in many allied ecosystems or at a solar planetary base at affordable costs with quality inputs.

No. of Pages: 21  No. of Claims: 11
Abstract The present invention provides an apparatus for lapping a valve seat of a cylinder head of an engine. The apparatus includes a holding assembly, a lapping tool, a rotating member and a connecting member. The holding assembly holds and aligns the cylinder head. The lapping tool is disposed in a tool holder. The lapping tool is extending towards the valve seat. The rotating member is having a pinion configured there-around. The pinion is connected with a rack. The connecting member is having an arrangement for converting a rotating movement of the rotating member partially or completely into a linear movement the tool holder. Upon reciprocating the rack, the pinion rotates, thereby rotating the rotating member, the connecting member and the tool holder along with the lapping tool, the connecting member reciprocates the tool holder along with the lapping tool by a predefined length for lapping the valve seat.
The present invention relates a dispensing assembly for a storage container having a neck portion and a body portion. In one embodiment, the dispensing assembly comprising a tablet tilter being mounted on the neck portion to sealingly engage with the neck portion, the tablet tilter comprising a central shaft disposed within the neck portion and a guide passage located on an outer surface of the central shaft; a sliding member being disposed inside the tablet tilter, the sliding member comprising a blocking member; and a top cover being mounted on the tablet tilter and forming a sealing engagement with tablet tilter, the top cover having an orifice and a stop portion being disposed inside the tablet tilter; wherein: movement of the sliding member from an initial position to a final position in a radially outward direction displaces the blocking member in the radially outward direction to create a storage area in the tablet tilter adapted to accommodate a single tablet, the single tablet being aligned within the storage area via the guide passage and the central shaft; and movement of the sliding member from the final position to the initial position in a radially inward direction displaces the blocking member in the radially inward direction to align the single tablet with the orifice for dispensing the single tablet.
Title of the invention : TUBE IN TUBE CONNECTOR

ABSTRACT TUBE IN TUBE CONNECTOR

The present subject matter relates to a tube-in-tube connector (100) for carrying fluids. The tube-in-tube connector (100) comprises: a connector body (102); and a tubular housing (104) affixed to a first side (110) of the connector body (102). The tubular housing (104) comprising a plurality of tubes (112, 113, 114), the plurality of tubes (112, 113, 114) comprising an internal tube (112) and at least one external tube (113, 114), wherein the internal tube (112) has internal tube outlet (112b) on a second side (116) of the connector body (102) and the at least one external tube (113, 114) has external tube outlet (114b) on a third side (118) of the connector body (102). Refer Figure 1.
ASSISTIVE CHAIR MECHANISM

TO-STAND/STAND-TO-SIT MECHANISM Described herein is an assistive sit-to-stand/stand-to-sit mechanism (100). The assistive mechanism (100) includes a mechanism (106) comprising a plurality of pairs of links (19, 8, 9, 10, 31, 17, 7, 11, 16, 20, 21, 22, 23) pivotally connected to each other such that the links in each pair being parallel to one another, the links in pair (20, 21) being coaxial. The assistive mechanism (100) further includes a plurality of sensors connected proximal to the mechanism (106), configured to sense motion of a user about to sit/stand up, wherein signal from the plurality of sensors triggers an actuator (3) such that a seating surface (36) undergoes a combination of linear and rotary motion to assist a user to sit down/stand up through the motion of plurality of pairs of links.

No. of Pages : 34 No. of Claims : 19
**Title of the invention:** AUTO SHUT OFF CONNECTOR ASSEMBLY

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<td>1) Onkar Vivekanand Jeurkar</td>
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**Abstract:**

AUTO SHUT OFF CONNECTOR ASSEMBLY

Described herein is an auto shut off connector assembly (200) for a liquid container (102). The auto shut off connector assembly (200) comprises a connector (204) comprising a flow control member (210) to control flow of liquid, an oil seal (216) disposed in an opening of the liquid container (102) and a spout (202) comprising outlet/inlet (206) configured to allow flow of liquid through the connector (204). The flow control member (210) is operatively connected inside of the connector (204) through a biasing means (208). The biasing means (208) pushes the control member (210) against opening of the oil seal (216) to stop the flow of liquid through the connector (204) when the connector is disengaged from the spout (202).
This invention comprises a stable oral dispersible thin film and a process of making the same, the film comprising a 4-Diphenylmethyl-1-piperazinyl derivative or its pharmaceutically acceptable salts; characterized by, during storage of the film, level of the individual impurities arising out of degradation of the 4-Diphenylmethyl-1-piperazinyl derivative or its pharmaceutically acceptable salts not exceeding 1% of the added drug, and total impurities not exceeding 2% and the taste is not less than acceptable when scored by a taste panel on a scale of Excellent (5), Pleasant (4), Acceptable (3), Bitter (2) and Extremely bitter (1). The film is also thin, translucent, non-curving, non-tacky and flexible with folding endurance of 25 or more, dissolution not less than 75% in 45 minute. The process comprises a step of adding sodium hydroxide before the film casting is done, selecting temperature range for drying step of the film appropriate for getting a stable film, and adding plasticizer/s.
OUTER SHELL OF SHOCK ABSORBER

The present invention relates to an outer shell (100) of the shock absorber and more particularly to a single piece integrated outer shell (100) of the shock absorber and method of manufacturing thereof. The shock absorber includes an inner tube (20) slid able into the outer shell (100). The outer shell (100) is a single piece made by moulding an outer tube, a bracket/ an eye ring (50), an end-cap and a spring support seat in a single polymer mould, keeping the sub-assembly part specifications same as original, in terms of strength, function and aesthetics. The polymer material (30) masks the cavity between the inner tube (20) and the outer shell (100) thereby forming a relief (40) there between. The portion of cavity between the outer shell (100) and the inner tube (20) is minimized, thereby reducing usage of raw material content especially oil in the shock absorber. Figure 2

No. of Pages : 11 No. of Claims : 3
SYSTEM FOR ADJUSTING DAMPING FORCE IN A FRONT FORK SUSPENSION

ABSTRACT

Disclosed is a system (100) for adjusting damping force in a front fork suspension. A specially designed cartridge unit (20) housed within the inner tube (15) provides an optional oil path through a throttle vale (25) in which a throttle pin (30) moves to open or close the throttle valve openings (25A) to adjust the damping force for different ride comfort. During sport mode throttle pin (30) closes the throttle valve openings (25A) and oil is passed only through piston openings (40A) which provides a harder damping i.e., original condition. In case of comfort mode, throttle pin (30) closes the throttle valve (25) and allows oil to flow through both piston (40) and throttle valve (25), which provides lesser damping force or resistance to Oil flow. This feature gives an option of adjusting damping force to either normal or comfort mode. Figure 1

No. of Pages : 13 No. of Claims : 3
A system for ranking one or more players 106A-N in zone polo is provided. The player ranking system 104 includes one or more cameras that record a video or captures one or more images. The player ranking system 104 obtains goal information of the one or more players 106A-N from the one or more cameras. The player ranking system 104 identifies the one or more players 106A-N who hit the goals by analyzing the goal information. The player ranking system 104 determines the number of goals are hit by each player. The player ranking system 104 assigns star points for each goal that is hit by each of the player. The player ranking system 104 determines a time period taken by each of the player to score at least one goal. The player ranking system 104 calculates a rank to the one or more players 106A-N. FIG. 1
Abstract:
ABSTRACT TITLE: REPHOSPHORIZED LOW CARBON HIGH STRENGTH COLD ROLLED STEEL SHEET HAVING HIGH YIELD RATIO, EXCELLENT FORMABILITY, PHOSPHATABILITY AND COATING PROPERTY AND METHOD OF MANUFACTURING THE SAME. Present invention relates to 600 MPa Tensile strength level low carbon high strength high yield ratio cold rolled rephosphorized, continuous annealed or galvannealed steel sheet having chemical composition of steel comprising in terms of mass fraction: C:0.05% to 0.1%, Si:0.04% or less, Mn:1.0% to 1.5 %,N:0.006% or less, Al:0.02 to 0.06 %, P:0.02 to 0.08 %, Nb:0.01% to 0.04%,Ti:0.02 to 0.04% and the balance being Fe and other inevitable impurities, wherein ratio of P to C is in the range of 0.2 to 1.2 and the ratio of (Mn+Si)/(C+P) must be less than 20. The process parameters for producing Cold rolled steel sheet described in present invention are selectively controlled to achieve desired microstructure and properties including excellent phosphatability, stretch flangeability, low temperature toughness property and galvannealing property with good hole expansion ratio (HER %) of =50 %, DBTT less than -50 0C , UTS x Elongation >14000 and UTS x HER % >32000 .
The Patent Office Journal No. 50/2019 Dated 13/12/2019

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(54) Title of the invention : HIGH STRENGTH COLD ROLLED DUAL PHASE STEEL SHEET HAVING HIGH YIELD RATIO WITH EXCELLENT BENDABILITY AND FLATNESS AND METHOD OF ITS MANUFACTURE.

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(57) Abstract :
ABSTRACT TITLE:HIGH STRENGTH COLD ROLLED DUAL PHASE STEEL SHEET HAVING HIGH YIELD RATIO WITH EXCELLENT BENDABILITY AND FLATNESS AND METHOD OF ITS MANUFACTURE. The present invention is directed to provide high strength dual phase cold rolled steel sheet having minimum 1000MPa UTS with high yield ratio of >0.65 and its method of manufacture with desired characteristics including excellent bendability, flatness and Hole expansion ratio. The steel sheets according to present invention comprising chemical elements in terms of mass percent: 0.121% to 0.16% of C, Si: 0.2% to 0.5%, Mn: 2% to 2.5%,N: 0.006% or less, Al: 0.02% to 0.06%, Nb: 0.061%-0.1%, Mo:0.25% or less, Ca: 0.003% or less and the balance being Fe and other inevitable impurities, wherein (Nb+Mo)/C is in a range of 0.5 to 3 for excellent combination of bendability and hole expansion ratio and contains Cr such that 0.4<(Cr+2Mo)<0.6 for better bendability. The steel is selectively processed through hot rolling, cold rolling and continuous annealing route to achieve dual phase steel sheets having a microstructure consisting of (Ferrite+Martensite+Bainite+Precipitates) to achieve the desired characteristics to suit intended automotive structural applications.

No. of Pages : 23 No. of Claims : 8
Title of the invention: AN INTERNAL COMBUSTION ENGINE ASSEMBLY WITH A RECESSED PISTON ENABLED FOR IMPROVING SPEED OF COMBUSTION

Abstract:
The present disclosure relates to the field of internal combustion engines and more particularly to a piston with a recessed combustion chamber on piston head for improving speed of combustion. The piston may further comprise the recessed combustion chamber faced towards a cylinder head with an injector. The injector is a fuel injector for introduction of fuel into the combustion chamber, where the mixture of fuel and air is allowed burn. The inner structural design of the combustion chamber may be formed into a circular shape of a rotating body with an axis in the direction of the translatory movement of the piston. At the piston head, an opening is formed by configuring a series of interconnected roundings in the shape of a flower. The complete assembly further increasing the speed of combustion enabled by better mixing of air and fuel which results in lowering the NOx emission and Particulate matter emission.
Title of the invention: HYDRAULIC OIL FILTER HEALTH MONITORING SYSTEM.

Abstract:
ABSTRACT A hydraulic filter monitoring and indication system for a hydraulic circuit, comprising: an oil reservoir; a strainer fitted in said oil reservoir; a hydraulic tandem pump fitted downstream said oil reservoir; an improved oil filter fitted between said oil reservoir and hydraulic tandem pump and having a pressure sensor is fitted between the inlet and outlet ports of said oil filter for sensing the pressure differential therebetween and issuing signals for indicating the actual status of the hydraulic filter health; an audio/visual indicator for issuing audio/visual signals about the remainder service life thereof by means of an electronic control unit (ECU) is connected between said audio/visual signals about the remainder service life thereof by means of an electronic control unit (ECU) is connected between said hydraulic filter and said audio/visual indicator; wherein said ECU is pre-calibrated with the predetermined values of the filter vacuum with the corresponding filter blockage in percentage, to be indicated/displayed on the audio/visual indicator, including a buzzer and a digital display. FIGURE 4.
Title of the invention: AMINE BASED HYDROGEN SULFIDE SCAVENGING ADDITIVE COMPOSITIONS OF COPPER SALTS, AND MEDIUM COMPRISING THE SAME.

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<td>Name of Applicant</td>
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ABSTRACT Title of the Invention: Amine Based Hydrogen Sulfide Scavenging Additive Compositions of Copper Salts, and Medium Comprising the Same. The present invention relates to amine based hydrogen sulfide (H2S) scavenging additive compositions comprising: A). an additive comprising at least one compound selected from the group comprising copper compound, copper soap, and copper salts of organic acid; and B). at least one activator capable of enhancing hydrogen sulfide (H2S) scavenging efficiency of the additive 1, wherein the activator comprises aliphatic tertiary amine, or oxyalkylated derivate of aliphatic amine, or a mixture thereof. The present invention also relates to a process for scavenging hydrogen sulfide in hydrocarbons by employing the amine based hydrogen sulfide (H2S) scavenging additive composition of the present invention. The present invention also relates to a method of using the amine based hydrogen sulfide (H2S) scavenging additive composition of the present invention for scavenging hydrogen sulfide in hydrocarbons. Figure: Nil

No. of Pages: 15 No. of Claims: 13
Title of the invention: SYSTEMS AND METHODS FOR COMPLETE TRANSLATION OF A WEB ELEMENT

Abstract:
ABSTRACT SYSTEMS AND METHODS FOR COMPLETE TRANSLATION OF A WEB ELEMENT• Embodiments of the present invention relate to systems and methods for complete translation of a web element. In one embodiment, the present invention encompasses a system comprising: a transceiver unit [402] for receiving a request for complete translation of a web element; a runtime engine [404] for parsing the one web element to identify a dynamic content, wherein the dynamic content may be in form of a code and a translatable text, further contains a fixed and a varying text. Further, the system comprising: a parser [406] for extracting the translatable text from the code; a translation engine [408] for translating all the translatable text from a source language to a target language; a web element re-composer [410] for recomposing the web element in the target language by replacing all the translatable text in the source language. FIGURE 4
Disclosed is a superposed heat exchanger comprising multiple fins (1) superposed together two opposing sides of each fin (1) bending upwards fitting with the fin (1) above to form a ventilating air duct and adjacent fins (1) being arranged in a longitudinally and transversely staggered way so as to create mutually independent transverse air ducts and longitudinal air ducts separated top to bottom. The heat exchanger is created of multiple superposed fins arranged in a longitudinally and transversely staggered way uses a plastic material is simple to shape and the thickness thereof can be controlled so that the heat exchanger can be made very thin. The number of fins can be increased in an effective space which can increase the heat dissipation area and improve heat exchange efficiency. Using an insert pin (4) an insert groove (5) and a curved turn up edge (7) to position and connect the longitudinally and transversely staggered arrangement can be directly superposed with no need for other connecting components and the positioning thereof is simple and precise.
**Title of the invention:** COATED BIO-IMPLANTS WITH OSSEOTEGRATION PROMOTING PROPERTY

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<td>2) Das Siddhartha</td>
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<td>3) Soni Vivek</td>
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**Abstract:**

Abstract Coated bio-implants with osseointegration promoting property. The coated dental implant comprises an implant body made of a biocompatible, mechanically strong and durable material. The coating on the implant body consists of a polymer nanofiber matrix consisting of at least one biodegradable and biocompatible synthetic polymer and at least one biodegradable and biocompatible natural polymer and osteoinductive and osteoconductive agents.
An automated equipment for deposition of thin film by dip coating and successive ionic layer adsorption and reaction comprises of a heavy mild steel circular base plate (10) which rests on four vibration damper stands (11, 12, 13, 14). The plate serves as the base platform for the entire equipment. A stepper motor (15) is fixed to a specially designed actuator platen (16). A rectangular mild steel block (17) attached to the actuator platen (16) serves as a height adapter. It accommodates a DC geared motor (18) in such a manner that a mild steel extension arm (19) to the shaft of the motor can rotate to ensure that a standard laboratory glass slide attached to the distal end of the extension arm avoids collision with the surface of base plate (10) during operation at a position when arm (19) is horizontally parallel to base (10). The geared motor (18) is attached to an "L" shaped aluminum support (20) which is fixed to the height adapter (17). To be continued with Fig.1a
The present invention is directed to substantially pure teneligliptin hydrobromide of formula (1) or its hydrate having reduced content of teneligliptin sulfoxide impurity ((2S,4S)-4-(3-methyl-1-phenyl-1H-pyrazol-5-yl)piperazin-1-yl)pyrrolidin-2-yl)(1-oxidothiazolidin-3-yl)methanone hemipentahydrobromide hydrate of formula (2).
The present invention, i.e. Railway track object removing system is a completely mechanical and comprises three bar L-shape carbon fiber frame and pneumatic cylinders for removal of the potential Collider smartly from the railway track irrespective of running speed of the train. The system works with the help of compressed air already exist in the engine for air breaks and is smart enough to remove loads up to 800 kg from the railway track, also safety valves are provided for very heavy loads. The system includes a shield which installed with lower pin of breaks of wheels of passenger trains is designed as to remove any thing on the track including human or animal body or any non-living thing smartly which reduces the negative consequences on the railway railroad accidents.
A hook mechanism 100 for overhead cable trolleys 100A comprises at least one hook portion 102 and a tab 104. The hook portion 102 extends from a body of the overhead trolley 100A and the tab extending from the body portion of the overhead trolley 100A and is configured to snap fit onto the hook portion 102. The hook portion 102 has a slot to facilitate snap fitment of the tab 104 therewithin. The hook portion 102 has C-shaped configuration. The tab 104 is connected to the body portion of the overhead cable trolley 100A via a resilient member. The two trolleys 100A are coupled via an auxiliary cable 106. The auxiliary cable 106 maintains the distance between the two trolleys 100A to avoid any kind of tensile stress from being applied to a towed cable 108. The auxiliary cable 106 is clamped via clamps 110.
SYSTEM AND METHOD FOR FACILITATING PLACING AN ORDER

A system and a method for placing an order at an eatery using a user device are disclosed. In one embodiment, the first user device [102] scans a unique code present at a table of an eatery, pursuant to which the first user device receives a verification message from a vendor device [104] (of the eatery). The first user device [102] subsequently places the order. The present invention also encompasses placing of the order by one or more users in an event the first user device [102] allows the second device [106A, 106B, 106C] to place the order.

Subsequently, at least one of the first user device [102] and the second user device [106A, 106B, 106C] processes the payment based on the order. [Figure 1]
ABSTRACT AUTOMATIC WATER DRAIN (AWD) MECHANISM FOR A FUEL FILTER ASSEMBLY

A fuel filter assembly (100) for separating water from fuel is disclosed. The assembly (100) comprises a filter housing and a water bowl (114) removably coupled to the filter housing (112). The water bowl (114) comprises a drain passage (304) that divides the water bowl (114) into an inner chamber (306) and an outer chamber (308). A plunger (316) is slidably disposed within the drain passage (304) and opens a passage for water in the outer chamber (308) to flow to the water outlet (318). A water level sensor (326) activates the plunger (316) when a water level in the outer chamber (308) reaches a predetermined level. A float (324) located inside the outer chamber (308) creates a positive pressure on the water flowing to the water outlet (318) during the activated state of the plunger (316). <<to be published with FIG. 2>>
Title of the invention: ASPHALT MIXTURE ADDITIVE

Abstract:
The present invention is to provide additive with specific characteristics to reduce amount of bitumen for any asphalt mixture or civil construction mixture or road paving mixture.

No. of Pages: 24 No. of Claims: 10
The present invention relate to novel bed tent utilizing maximum consumed energy to focused area, nice air ventilation, defending inside personnel from insects, providing personal privacy, focused comfort all day all season without harming user. Said tent comprises of plurality of walls (11), roof (12) and frame system (13) for holding the tent erect and to form room therein for containing the bed (2), heat exchanger (3) being installed on the wall of the tent (1) and unit stand (4) for providing support to the heat exchanger (3). The tent of said tent structure (1) is made of fabric and is breathable, not harmful to user, hypo allergic, water repellent, moist resistant and having >0.1 clo. The heat exchanger unit (3) having a reverse cycle mechanism and is provided to fix on tent wall or ceiling such that the cooling or heating outlet faces remain inside.
**Title of the invention:** HERBAL COMPOSITION OF OSTEOPOROSIS AND PROCESS OF PREPARATION THEREOF

**Abstract:**
ABSTRACT "HERBAL COMPOSITION OF OSTEOPOROSIS AND PROCESS OF PREPARATION THEREOF™ The present disclosure provides a herbal preparation with anti-osteoporotic potential comprising Capparis decidua as active ingredient and at least one pharmaceutically acceptable excipients. The disclosure further provides a process of preparing/formulating said herbal preparation into a suitable dosage form. Further, herbal preparation of the present disclosure is cost-effective and exhibits minimal side effects.

No. of Pages: 17 No. of Claims: 14
The present invention discloses cost-effective, rechargeable, precious metal free aqueous zinc battery having closed cathode architecture with a freely diffusing electron acceptor. More particularly, the invention discloses precious metal-free aqueous zinc battery having closed cathode architecture with a working voltage beyond the thermodynamic limit of 1.23 V which is achieved by modifying the interfacial chemistry existing at the cathode/electrolyte interface.
The invention relates to an enteric capsule and process comprising HPMC-AS polymer reacted with alkali in water to form aqueous solution. Adding processing aid such as colouring agents, plasticizers, surfactants to the said aqueous solution; heated steel pins 90 to 130 deg C dipped into the said aqueous poured into dipping dish maintained 10 to 35 deg C to form capsule.
Title of the invention: A FOLDABLE SOLAR GENERATOR

Abstract:
The present disclosure relates to the field of compact solar generators. A foldable solar generator has modular and simple configuration. The solar generator comprises a fixed unit, at least one movable unit, a set of solar panel units, a plurality of braces, a tilting mechanism, at least one battery and an inverter. The movable unit is extendable and retractable with respect to the fixed unit. The set of solar panel units is mounted on the body, which are arranged in an inoperative and operative configuration. The tilting mechanism includes a plurality of props and at least one telescopic rod. The props are disposed between the fixed and movable unit and the set of solar panel units. The telescopic rod is connected to the props to angularly displace the set of solar panel units in the operative configuration to facilitate optimal tracking of the sun rays.

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The Patent Office Journal No. 50/2019 Dated 13/12/2019

60023
The present disclosure relates to the field of solar panels. An inclination based backtracking apparatus of the present disclosure facilitates optimal reception of solar rays at high wind speeds and also reduces the loss of energy due to backtracking. The apparatus comprises a vertical post, a bearing, a torque tube, a linear actuator, and a backtracking unit. The torque tube is coupled to the bearing and is adapted to facilitate mounting of the solar panel thereon. The torque tube is configured to be angularly displaced with respect to the vertical post. The backtracking unit is configured to detect the speed of wind, and is further configured to control the backtracking of the solar panel based on the detected speed of wind and the angle of inclination of the solar panel with respect to ground.
Title of the invention: AN IMPROVED PROCESS FOR THE PREPARATION OF MIRABEGRON AND ITS INTERMEDIATES

Abstract:
The present invention relates to an improved process for the preparation of Mirabegron and its intermediates. Mirabegron is chemically described as 2-(2-aminothiazol-4-yl)-N-[4-(2-[(2R)-2-hydroxy-2-phenylethyl]amino]ethyl)phenyl] acetamide. It has the structure of formula I.

![Structure of Mirabegron](image)

No. of Pages: 28 No. of Claims: 9
The present invention provides a process for purification of tertiary amine N-oxides from a spin bath solution after the production of lyocell fibres therein. The process comprises filtering the spin bath solution and then passing the filtered solution first through an anion exchange resin followed by a cation exchange resin, wherein the volumetric ratio of the cation exchange resin to the anion exchange resin is 0.25 to 0.77.
Title of the invention: A COMPOSITION AND A PROCESS FOR PRODUCING PLANTS USING ANTHERS OF JATROPHA SPECIES

(51) International classification: A61K 36/00
(31) Priority Document No: NA
(32) Priority Date: NA
(33) Name of priority country: NA
(36) Date of filing of Application: 10/01/2017
(43) Date of filing of Application: 10/01/2017
(45) Date of filing of Application: 10/01/2017
(54) Title of the invention: A COMPOSITION AND A PROCESS FOR PRODUCING PLANTS USING ANTHERS OF JATROPHA SPECIES

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2) NEETA SHAILSH MADAN
3) SAINATH HADOLE
4) JANYAVULA VENKATA NARASIMHAM

(57) Abstract:
ABSTRACT The present invention describes a composition for developmental stages including but not limited to callus induction, proliferation, somatic embryogenesis, somatic embryo maturation and embryo germination, of Jatropha plants. The disclosure further describes a process of producing plants of Jatropha species from anthers, wherein the Jatropha species includes but is not limited to haploid plants, double haploid plants, tetraploid plants or polyploid plants by employing the said composition.

No. of Pages: 43 No. of Claims: 22
The present disclosure envisages a cartridge type micro-finishing unit for performing micro-finishing of a component, and relates to the field micro-finishing operations. The micro-finishing unit is light in weight, less expensive, and can be quickly installed and replaced with another micro-finishing units built for other components. The micro-finishing unit comprises an adapter plate, a frame, a pair of pivotable arms, an actuator, and a linear guide unit. The adapter plate is configured to detachably connect to a machine structure. The frame is mounted on the adapter plate. Each of the pair of pivotable arms has a free end, wherein a contact tooling is configured on each of the free end to facilitate micro-finishing of the component by pressurizing a micro-finishing element on the surface of the component.
ABSTRACT ORAL PHARMACEUTICAL COMPOSITION OF LURASIDONE AND PREPARATION THEREOF

The present invention relates to an oral pharmaceutical composition, particularly a tablet, comprising an active ingredient lurasidone or its pharmaceutically acceptable salt(s) or solvate(s) thereof and one or more pharmaceutical excipient(s); and a process for its preparation.
The present invention provides process for preparation of cysteamine bitartrate comprising reacting cysteamine or its salt with tartaric acid. The present invention further provides crystalline form L1 of cysteamine bitartrate having characteristic diffraction peaks at 10.36, 14.54, 17.23, 18.03, 19.24, 20.76, 21.20, 22.02, 23.37, 23.64, 27.71, 28.28, 29.26, 31.33, 32.84, 33.83, 35.51, 36.74 ± 0.2 degree two theta in an X-ray diffraction pattern and process for preparation thereof. The present invention provides crystalline form L2 of cysteamine bitartrate having characteristic diffraction peaks at 7.4, 10.3, 11.0, 11.4, 14.4, 14.9, 18.6, 19.4, 20.1, 20.8, 21.9, 22.3, 22.5, 23.5 ± 0.2 degree two theta in an X-ray diffraction pattern and process for preparation thereof.
The present disclosure envisages an apparatus for performing super finishing operation on a component. The apparatus comprises a linear motor, and a superfinishing tool coupled to the linear motor. The superfinishing tool is configured to receive a linear drive from the linear motor required for facilitating the superfinishing operation. An abrasive film is configured to roll over the superfinishing tool for performing the superfinishing operation. For performing the superfinishing operation, the superfinishing tool is displaced to abut the component such that the abrasive film is sandwiched between the superfinishing tool and the component, and an unwinding unit and a winding unit facilitate the rolling over of the abrasive film over the superfinishing tool, thereby effecting the superfinishing operation on the component.
The present disclosure relates to the field of internal combustion engines. A double cylinder internal combustion engine (200) is compact and light in weight. The engine (200) comprises an arrangement having at least one cylinder block (210) disposed within a housing (205) for circulating a portion of a cooling medium at an operative top (212) and bottom portion (214) of the cylinder block. A mesh (222) is disposed over a cowling cover to facilitate flow of cooling medium therethrough. First fins (244) are configured on the operative bottom portion of the cylinder block to cool the oil therewithin. A cooling fan (232) is configured with a second plurality of fins (234) to direct partial flow of the cooling medium in the cylinder block. The cylinder block includes a first piston and a second piston coupled to a crankshaft having offsets with the center of the crankshaft.
A method for removing polymer components from a powder-polymer mixture and an apparatus thereof. Embodiments herein provide a method and an apparatus of removing polymer components from a powder-polymer mixture. Parts of the powder-polymer mixture are immersed in a solvent in a heated ultrasonic solvent bath. An ultrasonic excitation is applied over the parts of the powder-polymer mixture so immersed in the solvent. The application of the ultrasonic excitation intensifies a dissolution of the powder-polymer mixture in the solvent, thereby removing the polymer components from the parts of the powder-polymer mixture.

FIG. 1

No. of Pages : 30 No. of Claims : 18
Title of the invention: A METHOD AND SYSTEM FOR ONLINE OPTIMIZATION OF ELECTRIC MOTOR DRIVE ASSOCIATED WITH PROCESS PLANT TO MINIMIZE THE ENERGY CONSUMPTION.

Abstract:
ABSTRACT TITLE: A method and system for online optimization of electric motor drive associated with process plant to minimize the energy consumption. The present invention relates to a method and a system to minimize real-time electrical energy consumption of an electrical motor drive associated with process plants. The method comprising of following steps: 1. Read the process plant measurements and the laboratory analysis. 2. Estimate current model parameters in Dynamic Optimization system. 3. Solve optimal control problem in Dynamic Optimization system for the future process time horizon. 4. Apply value of the calculated optimal speed to the electric motor drive through variable frequency drive. The Dynamic Optimization System comprising a microprocessor capable of computing and storing online measurements, laboratory analysis results, plant control system, operator interface, input/output cards (I/O), display, electric motor drive and variable frequency drive.

No. of Pages: 28 No. of Claims: 9
A METHOD AND APPARATUS FOR LOCALISED PLATING

ABSTRACT

A METHOD AND APPARATUS FOR LOCALISED PLATING

Disclosed is a localised plating apparatus that can be used for localised plating of the Dies wherein the Die remains over the ground and a tank is created over small portion of the Die on which plating process is carried out. Further, disclosed is a method that utilizes the localised plating apparatus in order to facilitate localised plating to any complex Die shape. FIG. 1 (for Publication)

No. of Pages : 19 No. of Claims : 12
The present invention relates to a metered dose inhaler (MDI) having a housing and a canister adapted to hold the medicament, the canister adapted to be received in the housing and to move from a rest position to an activation position, the metered dose inhaler comprising: a structural assembly enclosed within the housing and adapted to receive the canister, the structural assembly comprising: a stem block defining a flow path between the canister and an opening for dispensing the medicament; and a first displaceable member pivoted within the structural assembly and adapted to be laterally displaced from a first position to a second position; and a circuit assembly positioned adjacent to the structural assembly and the canister within the housing, the circuit assembly comprising: an inductor; an acoustic sensor; and a processor adapted to: receive a first signal from the inductor indicating a first time the first displaceable member has reached the second position during inhalation; receive a second signal from the inductor indicating a second time the first displaceable member has reached the first position after inhalation; receive a third signal from the acoustic sensor indicating dispensing of the medicament from the opening via the flow path during inhalation; and determine at least one parameter associated with the dispensing of the medicament based on the first signal, the second signal, and the third signal.
UNIFIED AC-DC MICROGRID ARCHITECTURE FOR DISTRIBUTION OF AC AND DC POWER ON SAME LINE

Abstract:
Embodiments herein provide an AC-DC microgrid (UADC) in a power distribution system. The UADC microgrid comprises a Solid-State Transformer (SST) supplying an input voltage carrying an AC voltage superimposed on a DC voltage at a Point of Common Coupling (PCC). One or more type of converters is configured at a load side for separating one of an AC signal or a DC signal from the input signal for generating an AC component or a DC component according to a requirement at the load side. FIG. 1
(54) Title of the invention : HERBAL COMPOSITION FOR TREATMENT AGAINST RETENTION OF PLACENTA

(51) International classification : A61K 31/00
(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 :
ABSTRACT Herbal medicament compositions for treatment against retention of placenta in animals comprising effective amount of an extract and/or bioactive fraction or powder of medicinal herbs Cassia italica and Sidacordata. This composition is not only efficiently expelling retained placenta but also decrease uterine involution period. The composition is very simple, inexpensive and efficient. It also reduce chance of uterine infection.

No. of Pages : 17 No. of Claims : 7
(54) Title of the invention: HERBAL COMPOSITION FOR TREATMENT AGAINST RETENTION OF PLACENTA.

(51) International classification:
A61K 49/22
A61K 6/00

(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
Filing Date: NA

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

(62) Divisional to Application Number
Filing Date: NA

(57) Abstract:
Herbal medicament compositions for the treatment against retention of placenta in animals comprising effective amount of an extract and/or bioactive fraction or powder of herb selected from Ailanthus excelsa; Dendrocalamus strictus and Mangifera indica. The composition is very simple, inexpensive and efficient. It also reduce chance of uterine infection. It also reduces duration required for involution of uterus in postpartum period.

No. of Pages: 18 No. of Claims: 7
The present disclosure relates to the field of internal combustion engines. A single cylinder internal combustion engine is compact and has high power to weight ratio. The engine comprises a cooling arrangement for a cylinder block to direct a cooling medium towards operative top and bottom portion of the cylinder block. Further, a mesh is configured over a cowling cover, wherein the mesh is configured to facilitate flow of cooling medium therethrough. First fins are configured on front portion and a flywheel is configured on rear portion of a cooling fan to direct partial flow of cooling medium towards operative top and bottom portion of the cylinder block, thereby cooling the oil. The engine includes a first piston and a crankshaft disposed within the cylinder block, and are connected via a connecting rod to maintain an offset.

No. of Pages : 25 No. of Claims : 10
An exhaust muffler of an internal combustion engine comprising: An inlet tube at least a catalytic converter, plurality of baffles and a muffler shell, wherein inlet end of catalytic converter is attached to the inlet tube and outlet end of catalytic converter is attached to a baffle and supported by shell of exhaust muffler and wherein an exhaust gas diverting element is provided at outlet end of catalytic converter. Figure 3b

No. of Pages : 23 No. of Claims : 15
Embodiments herein provide a method predicting a power swing and detecting event in a transmission line. A time series data is generated from an impedance value measured by a distance relay. The distance relay comprises one or more boundaries defined in terms of one or more zones. A noise component is filtered from the time series data and an impedance trajectory is created. An encroachment of the impedance trajectory with the one or more boundaries of distance relay is checked for predicting the power swing and a spike component in the time series is checked for detecting the event during the power swing.
**Title of the invention : A FRONT FORK OF A TWO WHEELER**

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**Abstract :**
A front fork of a two wheeler comprising at least two fork legs (101, 102) each having an inner tube and an outer tube, a steel spring 103, a damper mechanism and a preload adjustment mechanism 99, seat pipe, wherein the preload adjustment mechanism 99 has an adjuster screw 110, a fork bolt 112, a spacer tube, a piston 106 and a working zone 107 wherein the adjuster screw 110 is rotated to adjust the position of the piston 106 by displacing the spacer tube 105 attached with the said piston 106. In another embodiment of the present invention the said assembly is adapted to be used for inverted telescopic front fork suspension system. Ref Fig 6

No. of Pages : 15 No. of Claims : 6
Title of the invention: PROCESS OF SOLIDIFICATION OF HIGH-STRENGTH SUPER-INVAR ALLOY.

Abstract:
A process of solidification of invar 36 is described. In one embodiment, solidification of invar 36 powder into solid invar 36 by sintering, wherein the bonding of particle of invar was a critical challenge and it was due to laser power and laser speed to sinter invar 36 powder into solid through bonding of particle. The inventor has overcome the above challenges by focusing on the laser power and laser speed in such a way that powder can be converted into solid under range of laser power and laser speed.

No. of Pages: 15 No. of Claims: 10
Title of the invention : CRYSTALLINE HYDRATED FORM OF SOFOSBUVIR

(51) International classification
A61K 36/00
A61K 31/00

(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 :
The present invention provides crystalline hydrated form of sofosbuvir and a process for the preparation of crystalline hydrated form of sofosbuvir. The crystalline hydrated form of sofosbuvir disclosed herein may be useful in the formulation of pharmaceutical dosage forms.

No. of Pages : 19  No. of Claims : 10
ABSTRACT Title of the Invention: Demulsification Additive composition, and method of use thereof, and method of demulsification. The present invention relates to a demulsification additive composition for demulsification of water-in-oil emulsion caused due to wash water in the crude oil, wherein the composition comprises: (a) one or more demulsifiers (the component (a)); and (b) a compound selected from the group comprising glyoxal, neutralized glyoxal, glyoxal derivative and a mixture thereof (the component (b)); and (c) further comprises phosphoric acid (the component (c)). The present invention also relates to a method of using the present demulsification additive composition for demulsification of water-in-oil emulsion caused due to wash water in the crude oil. The present invention also relates to a method for demulsification of water-in-oil emulsion caused due to wash water in the crude oil by employing the present demulsification additive composition. Figure: Nil
The present disclosure envisages a system for evaluating feasibility of a new node in a blockchain infrastructure. The blockchain dimension queries and the transaction dimension queries are presented to a user. The user provide responses to the blockchain dimension queries and transaction dimension queries. A feature detector module detects features from the blockchain dimension responses and the transaction dimension responses. A feature value assignor assigns feature values to the detected features. A criticality assignor assigns criticality scores to the detected features. A weightage assignor assigns weightage scores to the blockchain dimension queries and the transaction dimension queries. The feasibility evaluator receives the feature values, the criticality scores, and the weightage scores, and calculates a feasibility score, thereby evaluating feasibility of the new node.
### Title of the invention: DEVICE FOR PERFORMING OPTICAL ANGIOGRAPHY OF RETINAL IMAGES

### Abstract:
The present invention discloses a device for performing optical angiography on retinal images. The device comprises a control unit, a data acquisition module, a data enhancement module, a storage module, a feature extraction classification module, a visualization module, and a communication module. The apparatus is designed to be used by ophthalmologist to perform optical angiography on the fundus images captured by means of fundus camera and avoid using traditional fluorescence angiography of patient struggling with diabetic retinopathy. The data acquisition module receives data from plurality of sensor connected to the system either connected fundus camera, portable storage device or cloud as input. The data acquisition module also converts the data suitable for data enhancement module. The data enhancement module checks the inconsistencies contained in the acquired data, it performs error estimation, de-noising, cleaning, from the fundus data. The enhancement on the 2D green channel data, applying de-noising and adaptive filters for removing optical noise, multi resolution analysis using wavelets and improvement of frequency representation of blood vessels, optic disc, exudates, haemorrhages, microaneurysms so that statistical/prognostic features like length of blood vessels, bifurcation, termination, end points, diameter of blood vessels, diameter of optic disc, diameter of blood vessels, diameter of optic disc etc. The optic disc removal from fundus image is also done in order to avoid confusion between exudates. It also involves measurement of tortuosity of blood vessels which helps in identification of disturbance in natural pattern of blood vessels from optic disc to macula. The feature extraction generates prognostic features on optical angiography fundus data and stores it in attributed file. The classification is based on these feature helps in determining state of enroller under observation into normal, moderate, abnormal classes. The visualization module provides visualization of results of optical angiography either on visual display unit connected to device, printing device or shared over underlying network through the communication module. The communication module shares the data files to any remote compatible devices such as smart phones, computers, and tablet but not limited to. The device also helps in generating and maintaining history of the observation cycles associated with the person under observation, history maintained over cloud and made available for the stakeholder across different geographical locations.

<table>
<thead>
<tr>
<th>Name of Applicant:</th>
<th>Address of Applicant: DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY DR BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY AURANGABAD Maharashtra India</th>
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<td>Name of Inventor:</td>
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<td>7) MANOJ SASWADE</td>
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<td>8) NEHA DESHPANDE</td>
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The Patent Office Journal No. 50/2019 Dated 13/12/2019 60048
The present invention relates to the synthesis of Curcumin-Zr nanocomposites by using simple water bath type ultrasonication method and their anticancer activity on Human Breast Cancer Cell Line MCF-7 and to study their interaction with bovine serum albumin protein.
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<th>(21) Application No.201721003509 A</th>
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<td>(22) Date of filing of Application :31/01/2017</td>
<td>(43) Publication Date : 13/12/2019</td>
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| (54) Title of the invention : ULRASONICALLY MODIFIED SYNTHESIS OF CURCUMIN-AL NANOCOMPOSITES AND ITS BINDING STUDIES WITH BSA AND IN-VITRO ANTICANCER ACTIVITY ON HUMAN BREAST CANCER CELL LINE MCF-7. |

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<td>1) DR. VISHWANATH R.PATIL</td>
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| (31) Priority Document No : | (32) Priority Date : |
| NA                           | NA                     |

| (33) Name of priority country : | (86) International Application No |
| NA                            | NA |

| (87) International Publication No : | (61) Patent of Addition to Application Number |
| NA                                | NA |

| (62) Divisional to Application Number : | (65) Divisional to Filing Date : |
| NA                                | NA |

| (57) Abstract : The present invention relates to the synthesis of Curcumin-Al nanocomposites by using simple water bath type ultrasonication method and their anticancer activity on Human Breast Cancer Cell Line MCF-7 and to study their interaction with bovine serum albumin protein. |

No. of Pages : 22 No. of Claims : 9
The present invention relates to the synthesis of Curcumin-Ni nanocomposites by using simple water bath type ultrasonication method and their anticancer activity on Human Breast Cancer Cell Line MCF-7 and to study their interaction with bovine serum albumin protein.
Disclosed is a system and method for simulating humidity to check braking performance of a vehicle. The systems develop humidity with humidifier around the braking system near wheel. The humidifier is put near wheel and a flexible canopy/envelop is developed around it in such a way that complete brake system will be inside envelop to generate humidity around brake system. The braking system is then checked for effect on humidity thereon. Figure 1
A software which is a combination of project management and personal assistant application which can be used on mobile as well as desktop. A software as claimed in claim 1 illustrates Transactions, Transaction area, create request money form, Requested money, Description, Spent money area, Details in spent Money Form, Feedback Button, Details of the form submitted, Status send by client. A software as claimed in claim 1 or 2 in which Communications illustrates Understanding Requirements of Client, Getting sanctions. A software as claimed in claim 1 to 3 in which Approvals illustrates Add approvals, Select Category, Select Sub Category, Description, Add photos, Add Documents, Approval Feedback A software as claimed in claim 1 to 4 in which Schedule illustrates Set schedule, Select job type, Start Date, End Date, Work scope, Description, Start time, End time. A software as claimed in claim 1 to 5 in which Recommendations illustrates Recommendations, Add Recommendations, Description, Add photos, Recommendation Feed Back, Description, Give Seed back, Status. A software as claimed in claim 1 to 6 in which Check List illustrates Add check list, Select category, Select co worker/ Add coworker, Add Materials, Suitable Date, Track Description, Suitable Time.
The present invention provides a wide band vibration energy harvester device. The operating frequency range ensures utilization of low frequency vibrations that include human motion, highway traffic and an automobile suspension motion. The device has incorporated magnetic non-linearity with an inertial mass constrained to undergo rectilinear vibrations. Furthermore, to utilize a wider spectrum with varying base acceleration, switching magnetic polarity has been incorporated to ensure efficient power output. As compared to existing vibration harvesters with piezoelectric generators, the proposed invention is capable of generating significant and higher electric power. The present invention also has better electric power output for higher base acceleration level.
The present invention relates to a pharmaceutical composition comprising Apremilast with at least one rate-controlling polymer. The present invention provides an immediate release composition comprising amorphous form of apremilast, wherein the drug release from the tablet is controlled by a rate-controlling polymer. Further, the invention relates to a process for the preparation of an immediate release composition of Apremilast.

No. of Pages : 16 No. of Claims : 10
The present invention relates to pharmaceutical composition comprising Everolimus and hot melt extrusion (HME) grade hydroxypropyl methylcellulose, and process for the preparation of the said composition.

No. of Pages : 15 No. of Claims : 8
**Title of the invention:** SOLAR CELL AND STRUCTURE THEREOF

(51) International classification : H01L31/00
(31) Priority Document No : 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 Number : NA
(62) Divisional to Application Number : NA

(71) Name of Applicant:
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(72) Name of Inventor:
1) Astha Tyagi
2) Kunal Ghosh
3) Anil Kottantharayil
4) Saurabh Vijaykumar Lodha

(57) Abstract:
ABSTRACT Solar cell and structure thereof Embodiments herein provide a solar cell structure having a layer at a front side for absorbing light energy. One or more carrier selective layers are configured on a rear side of the solar cell. The one or more carrier selective layers select each of the charge carriers from electrons, holes or excitons. FIG. 1

No. of Pages : 19 No. of Claims : 14

The Patent Office Journal No. 50/2019 Dated 13/12/2019 60057
Title of the invention: PROCESS FOR PREPARATION OF OSPEMIFENE

| (51) International classification | :C08L 67/00 |
| (31) Priority Document No | :NA |
| (32) Priority Date | :NA |
| (33) Name of priority country | :NA |
| (36) International Application No | :NA |
| Filing Date | :NA |
| (87) International Publication No | :NA |
| (61) Patent of Addition to Application Number | :NA |
| Filing Date | :NA |
| (62) Divisional to Application Number | :NA |
| Filing Date | :NA |

Name of Applicant: 1) Glenmark Pharmaceuticals Limited
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Name of Inventor: 1) BHIRUD, Shekhar
2) THOMAS, Abraham
3) SHAikh, Mahamadhanif S.
4) BUJHJADE, Vinayak K.
5) GAGARE, Yogesh E.
6) WAKADE, Sanjay M.

Abstract: The present invention relates to process for the preparation of Ospemifene. To, The Controller of Patents The Patent Office Branch, Mumbai
**Title of the Invention:** A Very Low Glycemic Multigrain Flour

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<th>(51) International Classification</th>
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**Name of Applicant:**
1) Raj Kumar Bhandari

**Address of Applicant:** Flat No 101, Elecia, Dosti Imperia Manpada, Ghodbander Road, Near R- Mall, Thane (West), 400610, Maharashtra India

**Name of Inventor:**
1) Raj Kumar Bhandari

**Abstract:**
A very low glycemic multigrain flour made up of commonly available coarse cereals such as Sorghum, Barley, Millets and legumes such as Soya bean. This flour is created with proper portions of Sorghum, Pearl or Finger Millet, and Soya bean with lots of trial and error resulting in a ideal mixture with proper balance of nutrients and with a very low glycemic value of 0.3.

No. of Pages: 18 No. of Claims: 5
**Title of the invention:** A SYSTEM FOR UV LIGHT TREATMENT OF A FLUID

| (51) International classification | :C02F1/32,A61L9/20 |
| (31) Priority Document No | :15509201 |
| (32) Priority Date | :30/06/2015 |
| (33) Name of priority country | :Sweden |
| (86) International Application No Filing Date | :PCT/SE2016/050595:20/06/2016 |
| (87) International Publication No | :WO 2017/003347 |
| (61) Patent of Addition to Application Number Filing Date | :NA:NA |
| (62) Divisional to Application Number Filing Date | :NA:NA |

**Abstract:**

The present invention generally relates to a system for treating a fluid and specifically to a treatment system (200) configured for selectively activating a first (206) and a second UV light source (104). The aim of the invention is to reduce the effective energy consumption of a system for treating a fluid with UV light. The invention especially concerns to overcome the drawback with mercury light sources which do not turn on immediately. Only the second UV light source (104) is an UV mercury based light source and the electrical power supply is configured to selectively deactivate the first UV light source (206) based on a predetermined condition based on a warm up period for the second light source.

**Name of Applicant:**

1) LIGHTLAB SWEDEN AB

Address of Applicant: Virdings Alle 32 B Uppsala Sweden

**Name of Inventor:**

1) TIR‰N Jonas

No. of Pages: 13
No. of Claims: 11
The present disclosure discloses system and a method for implementing legal compliance. The processor may receive a set of identifiers associated to a node. The node may be a computing system on a distributed ledger network. Based on identifiers, the processor may identify a contract applicable to the node. Further, the contract may be executed between the node and an entity on the distributed ledger network. The execution may be based on at least one of adherence or non-adherence by the node to the one or more rules. Further after execution, a legal compliance report may be generated based on validating the contract by at least one verifier from a set of verifiers on a distributed ledger network. The set of verifiers are indicative of a computing system. Further the set of verifiers are associated with the entity.
<table>
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<th><strong>(12) Patent Application Publication</strong></th>
<th>(21) Application No.201821021073 A</th>
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<tr>
<td><strong>(22) Date of filing of Application: 06/06/2018</strong></td>
<td><strong>(43) Publication Date: 13/12/2019</strong></td>
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<th><strong>(54) Title of the invention:</strong> 2-METHYL-2-ARYL-2,3-DIHYDRO-1H-BENZIMIDAZOLE DERIVATIVES AND THEIR ANTICANCER ACTIVITY</th>
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| **(51) International classification** | :C23C 18/30 C08B 31/00 |
| **(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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<tr>
<td>1) Bharati Vidyapeeth College of Pharmacy</td>
</tr>
<tr>
<td>Address: Near Chitranagri, Kolhapur, Maharashtra, India</td>
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<tr>
<td>1) Manish Bhatia</td>
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<tr>
<td>2) Sunil Harer</td>
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**Abstract:**
The present invention provides compounds of general formula A. The present invention further provides composition of compounds of general formula A and their usefulness as potential anticancer agents against Human leukemia cell line (molt-4). Formula A Wherein, R1 is selected from hydrogen, linear or branched -(C1-C8) alkyl, linear or branched -(C1-C8) alkyl amine, linear or branched -(C1-C8) alkyl, -(C1-C5) alkoxy, hydroxyl and halogen.

No. of Pages: 17  No. of Claims: 5
Title of the invention : GRAVITATIONAL AND BUOYANTIC AUTOMATICALLY SWITCH ON OFF DEVICE.

Abstract:
This invention is to make tension free to switch on and to switch off again and again, everyday. Usually, making switch on manually and forgetting, when water starts to overflow, then running to switch off. Consequently it & loss of water, from every house per day 20 litre water going waste. The calculation off City, State or of Nation, it is loss of trillions of litre water every day. It is very great loss to the Nation. Because to purify and supply drinking water to the public is very expensive process. This new invented device has very simple mechanical system. This device to get installed once and to become tension free. Because it works automatically always Whenever water level decreases a switch getting on and water level goes to the brim the switch gets off. This function continues perpetually.

Name of Applicant : 1)MEHBOOB BASHA BABALAL KAZI
Address of Applicant : H. NO. 62/6, 1ST FLOOR, MEHBOOB MANZIL, GAULEM BHAT, VILLAGE CHIMBEL, GOA-403006, INDIA. Goa India

Name of Inventor : 1)MEHBOOB BASHA BABALAL KAZI
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<td>(43)</td>
<td>Publication Date : 13/12/2019</td>
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(54) Title of the invention : A TRANSFER DEVICE

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(71) Name of Applicant :
1) Scitech Centre
Address of Applicant : 7, Prabhat Nagar, Jogeshwari West, Mumbai 400 102, Maharashtra, India

2) ACG PAM Pharma Technologies Pvt. Ltd.

(72) Name of Inventor :
1) Karan Singh
2) Roy Cook
3) Akash Jadhav

(57) Abstract :
ABSTRACT A Transfer Device A transfer device is provided. The transfer device enables loading/unloading of a standard test-load to plurality/each of weighing pans of load-cell simultaneously to determine accuracy of the load-cell so as to calibrate the load-cell in case there is any deviation in the accuracy of the load-cell. Reference Figure 2

No. of Pages : 16 No. of Claims : 8
Title of the invention : A MAGAZINE ASSEMBLY FOR CAPSULES

Abstract:
A magazine assembly for capsules A magazine assembly for feeding pharmaceutical capsules to a load-cell having plurality of weighing pans is provided. The magazine assembly comprises a pair of spaced apart plates having plurality of tracks, each track capable of feeding to each weighing pan of the load cell. One of the plates is movable, and each track has at-least one gate which is operable individually operable. The magazine assembly detects deformed capsules which may be jammed in one of the tracks, and is configured to move the plate away from the other plate, and operate the gates for allowing the deformed capsule to exit the magazine assembly. Reference Figure 2

Name of Applicant:
1) Scitech Centre
2) ACG PAM Pharma Technologies Pvt. Ltd.

Name of Inventor:
1) Jasjit Singh
2) Prakash Deshmukh
3) Mahesh Barde

Reference Figure 2

No. of Pages: 18  No. of Claims: 4
ABSTRACT
Circulating Current Controller (CCC) controlling arm current in Modular Multi-level Converter and a method thereof. Embodiments herein provide a circulating current controller (CCC) in a Modular Multi-Level Converter (MMC) for controlling arm current in the MMC and a method thereof. The CCC comprises an input module configured for receiving a circulating current from each of a lower arm and an upper of the MMC. The circulating current comprises a Second Harmonic Current (SHC). The CCC further comprises a PI controller for receiving the circulating current from the input module. The PI controller is further configured for controlling each of a magnitude and a phase of the SHC. The magnitude is controlled to obtain a predefined value and the phase is controlled to bring the phase orthogonal to a fundamental current FIG. 1.

No. of Pages : 23 No. of Claims : 10
ABSTRACT A PROCESS FOR THE PREPARATION OF A STABLE POLYESTER POLYOL

The present disclosure relates to a process for preparation of a stable polyester polyester polyol. The process involves mixing of crude terephthalic acid (CTA) with glycols to obtain slurry, followed by addition of a catalyst. The slurry containing the catalyst is homogenized, and then the homogenized slurry is heated to a temperature in the range of 200 °C to 300 °C, for a time period in the range of 4 hours to 8 hours to obtain homogenized slurry containing crude polyester polyol, which is cooled to obtain polyester polyol in liquid form. The polyester polyol obtained by the process of the present disclosure is a stable and transparent liquid at 25 °C, which remains in liquid form upon storage.
A PROCESS FOR PREPARING A STABLE POLYESTER POLYOL

The present disclosure relates to a process for preparing a stable polyester polyol. The process of the present disclosure is simple, environment friendly and economical. The polyol obtained by using the process of the present disclosure, is stable and remains in liquid form at ambient temperature even upon long term of storage.

No. of Pages : 13 No. of Claims : 9
A PROCESS FOR PREPARING A STABLE OPAQUE POLYESTER POLYOL

ABSTRACT A PROCESS FOR PREPARING A STABLE OPAQUE POLYESTER POLYOL The present disclosure relates to a process for preparing a stable opaque polyester polyol in liquid form at 25 °C, by recycling waste polyester particles and additive. The process converts the waste polyester particles into high value polyol products thereby, making the process simple and economical.
Title of the invention: PROCESS FOR THE PREPARATION OF METYROSINE

Abstract:
ABSTRACT TITLE: PROCESS FOR THE PREPARATION OF METYROSINE• The present invention is directed to improved process for preparation of Metyrosine (formula I) or pharmaceutically acceptable salt thereof. The present invention further relates to intermediates of Metyrosine and process for the preparation thereof. The present invention also relates solid state form of Metyrosine and process for the preparation thereof. The present invention further relates to pharmaceutical composition of Metyrosine.

No. of Pages: 30 No. of Claims: 8
Title of the invention: SYSTEM AND METHOD FOR GENERATING A WAVEFORM SIGNAL HAVING BURST MODULATED ULTRASOUND SWEEP WITH ENCAPSULATED SONIC ARTEFACTS

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Abstract:
A system and method for generating a waveform having a burst modulated ultrasound sweep carrier wave with encapsulated sonic artefacts is disclosed. The system includes a transducer; and a microcontroller operatively connected to the transducer wherein the microcontroller: generates a first signal that, when fed to the transducer, generates a first ultrasound sweep carrier wave (first wave); generates a second signal that, when fed to the transducer, generates bursts of a second ultrasound wave at a pre-determined sonic frequency (second wave); and combines the first signal with the second signal to generate a third signal. The third signal is provided to the transducer to enable the transducer to generate the waveform. Corresponding method is described.

No. of Pages: 39
No. of Claims: 15
A transducer assembly comprising a piezo crystal, a cavity resonator, a conical reflector and a multi-direction wave scatter grill (WSG) is disclosed. The piezo crystal generates primary sweeping waves of multiple resonant frequencies spanning sonic and ultrasound (ultrasonic) frequency ranges based upon received signals, the cavity resonator tunes and locks in the primary sweeping waves to generate primary standing waves, and the conical reflector and the WSG are so configured that the WSG finally outputs a waveform based on the primary standing waves. The waveform propagates conically from the WSG and includes a burst modulated ultrasound sweep carrier wave with encapsulated sonic artefacts and has anti-microbial properties.
Spontaneous pupillary fluctuations are indicative of the cognitive load imposed while doing a task involving memory resources. However, the fluctuations are also dependent on other factors like lighting conditions, uncertainty or the level of confidence while performing the task and so on. The present disclosure addresses the technical problems faced while determining cognitive load and confidence level of a person using pupillary fluctuations. A system and method for determining cognitive load and confidence of a person using pupillary response has been provided. Various components of pupillary response are separated in order to assess the cognitive load and the confidence with which the task is performed. Hybrid decomposition models using ensemble empirical mode decomposition followed by independent component analysis is found to effectively reconstruct the original signal. The Variational Mode Decomposition has been used in order to overcome the limitations imposed by empirical mode decomposition.
(54) Title of the invention : A LIQUID HEATING SYSTEM

(51) International classification : F24H 09200
(71) Name of Applicant :
   1) RELIANCE INDUSTRIES LIMITED

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

(57) Abstract :
ABSTRACT A LIQUID HEATING SYSTEM The present disclosure envisages a liquid heating system (100) that uses LPG as fuel, which is environment friendly, and is reliable. The system (100) comprises a liquid bath (105) configured to store a liquid therewithin. At least one burner (140) is configured to generate heat, thereby heating the liquid stored in the liquid bath (105). The system (100) comprises a temperature control unit (155) that operates the burner (140) based on the temperature of liquid within the liquid bath (105).
The present disclosure provides an actor model based multi robot system and optimized task scheduling method in an operating environment. Most existing architectures do not provide dynamic and optimized task allocation methods for multi robot systems with human collaboration. The disclosed architecture of the multi robot system is based on an actor model, where each physical robot has an associated robot actor in the form of a unique single threaded application. The disclosed optimized task scheduling method assigns tasks dynamically by identifying a suitable physical robot or a suitable human operator using a bid value concept and provides an integrated solution to the problems such as Multi Agent Path Finding (MAPF), Multi Robot Task Coordination (MRTC), and Multi Robot Task decomposition (MRTD) while catering to industry 4.0 operating environments.

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<th>Abstract</th>
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No. of Pages : 43 No. of Claims : 7
**Title of the invention**: SYSTEM AND METHOD OF WIRELESS PAYMENT

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<td><strong>Filing Date</strong></td>
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**Name of Inventor**:
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2) Vishal Vasant Oak
3) Anish Shah
4) Rajeev Gupta

**Abstract**:
ABSTRACT SYSTEM AND METHOD FOR WIRELESS PAYMENT The present invention provides a method and system [100A] which facilitates easy and smooth detection of available one or more Point-of-sale (POS) terminals [100] automatically at a merchant’s site when a user desires to use a user device [103] in order to pay for services/goods availed by the user device. The present invention provides a scalable, easy to use, seamless, and an efficient method to detect the POS terminals [100] over a Wi-Fi network available to the user equipment. Information corresponding to the detected and available POS terminals [100] are presented on the user device [103] so that the user may easily select an appropriate POS terminal [100] and may initiate the further payment process. The one or more available POS terminals [100] are detected by the user device [103] with the help of a first server device [110] and a second server device [120].

No. of Pages: 43 No. of Claims: 9
(54) Title of the invention: METHOD FOR UNIFORM POWDER COATING AND SYSTEM THEREFOR

(51) International classification: G06Q 20/16

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

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(72) Name of Inventor:
1) Shirish Vasant Deshpande

(57) Abstract:
METHOD FOR UNIFORM POWDER COATING AND APPLICATOR THEREFOR
Abstract
Disclosed are a method for uniform powder coating and a system (100) therefor. The system (100) and the method are useful for powder coating parts such as corners and recesses of the job. The method involves a straight spray pattern that offers pinpointing of the powder flow to recesses and corners of the job thereby enabling even coating of the job. The system (100) and the method nullify Faradays cage effect. The system (100) and the method avoid rework on powder coated job thereby avoiding financial loss in powder coating. Figure 3

No. of Pages: 14
No. of Claims: 9
SPOTTING FACIAL MICRO-EXPRESSIONS OF A USER BASED UPON AN ESTIMATION OF INSTANTANEOUS HEART RATES

Spotting a plurality of facial micro-expressions of a user by estimating a plurality of instantaneous heart rates of the user is provided. A few of the traditional systems and methods provide for spotting facial micro-expressions but comprise unavoidable human pose variations and eye-blinks. Embodiments of the present disclosure provide for spotting the plurality of facial micro-expressions by estimating the plurality of instantaneous heart rates by extracting, from a facial region of a user, a plurality of Region of Interests (ROIs); extracting a temporal signal from each of the plurality of ROIs; filtering, a plurality of temporal signals extracted to obtain a filtered set of signals; extracting a pulse signal from the filtered set of signals; estimating, from the pulse signal, the plurality of instantaneous heart rates of the user; and spotting, based upon the plurality of the instantaneous heart rates, the plurality of facial micro-expressions of the user.
### Title of the invention: WIND FUNNELING TURBINE SYSTEM FOR GENERATING ELECTRIC POWER IN HIGH RISE BUILDINGS

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<tr>
<th>(71) Name of Applicant</th>
<th>1) VARMA, Praveen Appu</th>
</tr>
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<tr>
<td>Address of Applicant</td>
<td>Flat # 13, Plot # 270, Nand Dham, Sulochana Sethi Road, Sion (West), Mumbai 400022, Maharashtra, India, Maharashtra India</td>
</tr>
</tbody>
</table>

| (72) Name of Inventor             | 1) VARMA, Praveen Appu |

### Abstract:
The present invention discloses a wind funneling turbine (WFT) system that works on the concept of funneling wind energy and complimenting it with kinetic energy from a flywheel in order to generate electrical power for a high-rise building. The surplus generated electrical power is stored in a pack of power storage battery and is used in case of power supply outrage from a grid power source. A control unit is configured to monitors and controls operations of components of the WFT system. The system has a main control and monitoring unit connected to the control unit for real time supervision and monitoring of the WFT system via a user interface.

No. of Pages: 34 No. of Claims: 10
DEVICE FOR SOIL AND LIQUID TESTING

Abstract

Disclosed is a battery operated, portable device (100) for instant, on-field soil and liquid testing. The device (100) consists of a housing (10) having a handle (20) mounted thereon for gripping and a probe (30) configured there below for inserting into the soil. Sensors for measuring soil parameters like pH, moisture content, temperature and electrical conductivity are mounted on and within the probe (30). A soil and liquid testing circuit (12) is mounted within the housing (10) for applying voltage across the sensors and for receiving signals there from to convert into electronic counts in ASCII format, that is further displayed on display unit mounted on the housing. Moisture and electrical conductivity of the soil is measured using capacitive sensors (32a, 32b) that are metal electrodes (6) of thin sheet material, mounted on an insulating base (4) and partially impregnated with a thin sheet of conductive alloy material. Figure 1

No. of Pages : 14 No. of Claims : 5
### ICE MELTING CUM WATER TREATMENT APPARATUS BASED ON SOLAR ENERGY

**Title of the invention:**

ICE MELTING CUM WATER TREATMENT APPARATUS BASED ON SOLAR ENERGY

**Abstract:**

Disclosed is an ice melting cum water treatment apparatus based on solar energy which includes two radially spaced curved surfaces, preferably of hemispherical shape, closed at center peripheral collars, forming a closed spherical chamber defining an absorber of the present invention. The absorber is equipped to receive a fluid and/or ice to be heated therein. The ice melting cum water treatment apparatus based on solar energy includes two radially spaced transparent curved surfaces that are closed at center peripheral collars, with gaskets thereof and position over the absorber as a glazing. Absorber and glazing along with necessary gaskets termed as a collector positioned on supportive legs. The ice melting cum water treatment apparatus based on solar energy includes reflector, the reflector having a sector of spherical surface, covered by reflective surface, supported by frame, positioned all around from bottom side of the collector. Reflective surface along with frame is connected to collector with proper arrangement. The funnel is preferably located at the highest position of the absorber and most preferably in proximity to the top end of the absorber. The glazing, the curved surface absorber and the curved surface reflector are substantially concentric in accordance with preferred embodiment of the present invention. The absorber gets heated by absorbing incoming solar radiation that in turn heats the substance. It is understood however that the substance from absorber can be consumed as and when required. The spherical shape of the absorber and removal of treated substance especially in case of melting of ice from outlet valve on curved surface allows removal of water as ice floats on water.

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The Patent Office Journal No. 50/2019 Dated 13/12/2019

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No. of Pages: 12  No. of Claims: 7
The Patent Office Journal No. 50/2019 Dated 13/12/2019

(12) PATENT APPLICATION PUBLICATION
(21) Application No.201821021663 A
(19) INDIA
(22) Date of filing of Application :10/06/2018
(43) Publication Date : 13/12/2019

(54) Title of the invention : ORAL MUCOSAL DELIVERY SYSTEMS COMPRISING MONOPHASIC COMPOSITION OF TERIPARATIDE

(51) International classification :F02C 7/236
(31) Priority Document No :NA
(32) Priority Date :NA
(33) Name of priority country :NA
(36) International Application No :NA
(37) Filing Date :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 : This invention comprises a water free liquid composition comprising Teriparatide for transmucosal delivery that adheres to mucosa after coming in contact with mucosal surface and a system of making dosage form from the same and delivering to mucous membrane at various locations though liquid drops, capsule or tablets. The liquid composition is characterized by being a monophasic composition. The liquid monophasic composition comprises a non-aqueous liquid as carrier, a penetration enhancer/ permeation enhancer, stabilizer and a surfactant. The liquid composition of Teriparatide intended to be dispensed to a mucosal membrane of oral/buccal cavity as liquid drops, or of oral/buccal cavity or nasal cavity as an oral or nasal spray or of oral/buccal cavity as an oral film; or of a part of alimentary canal as incorporated in a capsule or a tablet as an ingredient.

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2) Nidhi Prakash Sapkal
3) Minal Nandkumar Bonde
4) PADMA VENKITACHALAM DEVARAJAN
5) DARSHIEEN JITENDRBHAI KOTAK

No. of Pages : 18 No. of Claims : 7
(54) Title of the invention: QUICK RESPONSE CODE BASED EMERGENCY RESPONSE SYSTEM FOR PASSENGERS.

(51) International classification: B60K 28/14

(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
Filing Date: NA

(87) International Publication No: NA

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

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

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(57) Abstract:
The disclosed invention related to a system comprising a software application and associated databases and hardware elements that makes travels of women on public transport vehicles such as cabs, autos, taxis, or buses safe. Said system particularly relates to the use of a secured QR code based application that provides connectivity of all the participates in the travel like the passenger, the driver and the vehicle with the police authorities so as to make it easy for the passenger to raise the alarm/ complaint when in distress and the police to track and provide effective help to said woman passenger.

No. of Pages: 22 No. of Claims: 11
The present invention pertains to the digital neurons wherein the digital neurons are used to create memory patterns using a coding system wherein any unit of metric system can be used for coding, for example HEX coding system, binary system, octal system, base 10 system, base 2 system, cryptographic hash and like. The present invention mimics the neural functioning of the biological system to store and memorize the information perceived by the sensory systems wherein such information is stored in the form of Unit of storage for example HEX codes in variable or fixed data storage length.

No. of Pages : 7 No. of Claims : 12
The present invention pertain to the chatbot/virtual assistants. More particularly, to the real time learning of the chatbot/virtual assistants during interaction with the correspondent. The present invention comprises of the chatbot/virtual assistants which are enabled for real time learning wherein the chatbot/virtual assistants are capable of memorizing the information perceived during the real interaction with the correspondent. The present invention pertaining to the chatbot/virtual assistant system which comprises of neural signatures wherein every information or data perceived is stored as a memory in the form of neural signature.
This disclosure relates generally to method and system for verifying properties of source code. Verifying sufficient subset of properties by identifying implication relations between their verification outcomes is time consuming because of increased size of source code with large number of properties. The proposed disclosure processes the received source code for verifying properties by analyzing the source code to merge the plurality of properties into a plurality of groups based on a grouping technique. Then, slice for each group among the plurality of groups are created. Further, each slice created for each group is verified; verification for the one or more properties within each group is performed simultaneously. The system groups the properties thereby providing efficient and scalable system for verifying properties which reduces cost with increased efficiency and improved performance.

No. of Pages : 36 No. of Claims : 8
The present invention provides a method for metabolic re-modeling in Chlorella FC2 strain at lipid induction phase comprising the steps of:

- a) Subjecting the Chlorella FC2 cells under a photoautotrophic condition in the nutrient sufficient BG11 medium;
- b) Cultivating the Chlorella FC2 cells devoid of urea to grow Chlorella FC2 cells in BG11 medium under nitrogen deprived condition for 40 hour to 120 hour;
- c) Extracting protein and/or metabolites from the Chlorella FC2 cells grown for 40 hours to 120 hours following nitrogen starvation using TRIzol method and chilled MeOH: chloroform: water (4:3:1) mix respectively.
(21) Application No.201821021749 A
(22) Date of filing of Application :11/06/2018
(43) Publication Date : 13/12/2019

(54) Title of the invention : MODULAR HYBRID SMART VERTEX

(51) International classification :H04L29/08
(31) Priority Document No :NA
(32) Priority Date :NA
(33) Name of priority country :NA
(61) Patent of Addition to Application Number :NA
(62) Divisional to Application Number :NA

(71) Name of Applicant :
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2) PRIYANKA WALLI

(72) Name of Inventor :
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2) PRIYANKA WALLI

(57) Abstract :
A modular hybrid smart vertex is disclosed. The modular hybrid smart vertex comprises a plurality of modules each module containing a functional component: wherein, mechanical/fabrication of circular profile of diameter between 300 to 360mm; electronic layer called as physical gateway, hub on which all electrical and electronic devices are physically connected which is also called device aggregator; software layer- cloud base layer consist of virtual gateway in will devices API will be integrated and all data will be stacked in database, and user application with dashboard which will consist of data analytics and control. (FIGURE 3)

No. of Pages : 44 No. of Claims : 27
A multi-server system (100), which includes one or more user devices (102), a server (104), a primary database (106), a formal server (108), and multiple secondary databases (110) is disclosed. In the present invention, a user can search for the registered user name of another user by just inputting the user identifier of the registered user. Upon receiving the user identifier, the server (100) extracts handles stored in the memory and generate user addresses by appending the user identifier corresponding to each handle. Further, the server (100) generates multiple threads corresponding to the user addresses and further generates and transmits multiple search requests through multiple threads to the formal server (108), wherein the formal server (108) redirects one of the threads to a secondary server (110). Once the registered user address is found, the same is communicated to the multi-server system (100) and rest of the searches are suspended.
Provided herein is an improved process for the preparation of benzylated derivative of D-galactose, particularly 2,3,4,6-tetra-O-benzyl-D-galactose that gives higher yield and better purity being cost effective with reduced impurities.
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<th>(71) Name of Applicant :</th>
<th>1) Jugalkishore Kunjilal Kalani</th>
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<tbody>
<tr>
<td>Address of Applicant :</td>
<td>Plot No H-2, Old MIDC SATARA Maharashtra India</td>
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| (72) Name of Inventor : | 1) Jugalkishore Kunjilal Kalani |

| (57) Abstract : | ABSTRACT The invention is a friction less distribution plate for the rotor of a VSI crusher having a cylindrical pivoted bolt engaged to a rotating shaft which rotates with the shaft. A conical tip projecting upwards from the cylindrical pivoted is at point contact with a jewel bearing on which is resting a stationary distribution plate so that there is no friction between the said jewel bearing and the said conical tip. Ref.Fig.1 |

No. of Pages : 15 No. of Claims : 13
Title of the invention: OUTSIDE REAR VIEW MIRROR (ORVM) SYSTEM FOR FACILITATING VIEWING IN BLIND SPOT REGION

Abstract:
An outside rear view mirror (ORVM) system (100) for facilitating viewing in blind spot is disclosed. The system (100) includes an actuator (102), a controller (104) and a motor (106). The controller (104) is actuated by the actuator (102). The motor (106) is controlled by the controller (104). The ORVM (114) is connected to the motor (108) and operated by the motor (108), wherein upon actuation of the ORVM (114), the ORVM (114) rotates to provide view in blind spot area.
Present invention relates to design and modeling for establishing a more reliable way of communication in Non-Conventional media viz. underground and underwater by using the concept of superconductivity in the coil based antennas with the help of superconductor wires/tapes and Litz wires. A novel communication model is developed in order to perform the long-range communication with strong signal strength, less bulky and low powered model. The communication model basically has three components: Superconductor transmitter coil antenna, superconductor relay coils (waveguide) and receiver coil antenna. The operation of system is at a low frequency (Khz), therefore possess an added advantage for sensor networks operation because of the less power consumption and thus providing a longer system life-time. Following invention is described in detail with the help of Figure 1 of sheet 1 showing the block schematic of superconductor based MI model.
The present invention is the design of MapReduce algorithms configured on various Distributed File Systems. They are designed for processing the heterogeneous data. The MapReduce program is written and tested on all such setups for the analysis of mobile data generated for a user visiting various locations and to find the count of the number of locations the user has visited. In the second problem statement, MapReduce algorithm is designed for the analysis of the logs data generated from ACLs. This analysis throws light on which website the user has visited how many times. Firstly, it checks whether it is a valid website by checking http at the beginning of the URL.
The present invention discloses a bundle counter, comprising a light emitting means, a light receiving means and a sensor for generating a measured signal; and a controller configured to simultaneously count and evaluate each security document of said bundle without breaking or unwrapping the bundle, said controller generates a predetermined output signal to trigger ON a blue LED, indicating determination of each said security document to be an authentic security document, only relative to sensing a predetermined item with said measured signal above a predetermined threshold signal value, and said controller generates said predetermined output signal to trigger ON a stopper, that stops counting on a specific security document from among the bundled security documents, indicating determination of said specific security document to be a counterfeit security document, either relative to said predetermined item not being sensed or relative to sensing said predetermined item with said measured signal below said predetermined threshold signal value. Figure of Abstract : Figure 1
(54) Title of the invention : PLUG PHASE IDENTIFICATION BY SIMULTANEOUS VOLTAGE SENSING FOR SOLVING LOAD IMBALANCE

(51) International classification : G05F 1/56
(31) Priority Document No : 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 Number : NA
(62) Divisional to Application Number : NA

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(72) Name of Inventor :
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2) Prof. Krithivasan Ramamritham

(57) Abstract :
ABSTRACT Method for adjusting load imbalance and an electrical system thereof. Embodiments herein disclose a method for adjusting load imbalance in an electrical system. One or more sensors are configured for sensing changes in voltage at each of a mains meter and a plug sensor connected to the socket to measure voltage at the socket. A variation in the voltage at each of the mains meter and the socket is determined by using changes in the voltage. A correct phase is determined by computing coefficient of correlation for each socket or distribution point of the one or more phase according to the variation in the voltage. Correct phase from the one or more phase is identified according to the voltage variation, for each appliance is connected of the one or more appliance. The correct phase from the one or more phase is assigned for each socket appliance or socket of the one or more appliance. Assigning the correct phase adjusts balance of load of the one or more appliance in an electrical system. FIG. 2

No. of Pages : 27 No. of Claims : 9
Abstract:
AGRICULTURAL HARVESTER HAVING A FOUR WHEEL DRIVE SYSTEM [0043] An agricultural harvester includes an auger assembly configured to move agricultural product toward an elevator. The agricultural harvester also includes a drive shaft assembly. A portion of the drive shaft assembly is positioned laterally outward of the auger assembly, and the portion of the drive shaft assembly extends within a vertical extent of the auger assembly, such that the portion of the drive shaft assembly and the auger assembly overlap one another along a vertical axis of the agricultural harvester. In addition, the agricultural harvester includes an axle assembly having an input. The drive shaft assembly is coupled to the input of the axle assembly, and the drive shaft assembly is configured to transfer rotational energy.
(54) Title of the invention : PROCESS FOR PREPARATION OF HYDROXYCHLOROQUINE AND INTERMEDIATES THEREOF

(51) International classification : G01R 31/315

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

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(57) Abstract :
ABSTRACT PROCESS FOR PREPARATION OF HYDROXYCHLOROQUINE AND INTERMEDIATES THEREOF . The present invention relates to a process for the preparation of hydroxychloroquine and its intermediates, especially of 2-((4-aminopentyl)(ethyl)amino)ethan-1-ol, an intermediate compound of Formula (II), and its use for the preparation of hydroxychloroquine or its acid addition salts.

No. of Pages : 16 No. of Claims : 9
A cost effective system (100) for improving the reach of an entity is disclosed. The system (100) comprises: a mass storage (3); a memory (1) that comprises an operating system and an e-commerce application (5), said e-commerce application (5) comprising a user interface module (51), a customer module (52), an entity module (53), an advertisement and sales module (54), a money module (56), a management module (55), a future secure buying module, and a communication module (57); a central processing unit (2); a communication interface (4) that is connected to a Network (7); and a communication bus, wherein one or more modules in the system (100) are stored and operated from a remote server (6), and said system (100) operates within the Network (7) through connections to one or more remote devices (8).
The invention provides a solar tracking system having solar cell unit either single or as a cluster having solar cells of relatively smaller dimensions wherein each solar cell can tilt and get aligned to be perpendicular to receive maximum solar insolation at any time unlike solar panels with many solar cells which requires lot of energy and space to get tilted. This makes these units ideal to be installed on vehicles. Because of their smaller dimensions, even with low mounting these cells can tilt and get inclined to the fullest extent.

The invention further provides method of operating the said solar tracking system with the help of a logic circuit comprising one or more sets of sensors and a central controlling unit or a micro-controller to cause best orientation of the solar cells to receive maximum solar insolation.
The present invention discloses the AI bot system wherein the creator (human user) is capable of creating and owning an individual AI bot which has its own neural signatures network. This individual AI bot/virtual assistant comprises all the information about its creator (human user). The information is mainly pertaining to the physical, educational, work-related, social aspect of the creator. This information is however limited to the one which is provided to the AI bot by the creator. The individual AI bot has a unique ability of functioning in accordance with the preferences and requirements of his creator. The individual AI bot of the present invention are also capable of providing a specific information and assisting the creator with the same such as medical, engineering, architecture, business, finance etc.

No. of Pages : 7 No. of Claims : 11
The embodiment of the present invention provides the AI systems capable of inviting other AI bots or other human users for the meeting room discussion or the conference meeting. The date and time of such meeting can be predetermined or fixed. The other AI bots are also capable of accepting or refusing the invitation of the meeting. In other embodiment of the present invention, the AI bot system is capable of accepting the invitation as a proxy for its operator (human creating the AI bot). The AI BOT shall accept the invite send by a different bot with consent from his operator.
The image processing method and apparatus, and the electronic device provided by this application perform denoising on the to-be-processed image to obtain a denoised image, and then perform detail enhancement on the target area image extracted from the denoised image to obtain a detail enhanced image, thereafter fuse the denoised image with the detail enhanced image to obtain an output image. Since detail enhancement has been performed on the target area image, the obtained output image is sharper and the display effect is better. Abstract Drawing: FIG. 2

No. of Pages: 24 No. of Claims: 11
A semiconductor device according to some examples of the disclosure may include a package substrate a semiconductor die coupled to one side of the package substrate with a first set of contacts on an active side of the semiconductor die and coupled to a plurality of solder prints with a second set of contacts on a back side of the semiconductor die. The semiconductor die may include a plurality of vias connecting the first set of contacts to the second set of contacts and configured to allow heat to be transferred from the active side of the die to the plurality of solder prints for a shorter heat dissipation path.
Title of the invention: A METHOD OF LASER PROCESSING A METALLIC MATERIAL AND A MACHINE FOR IMPLEMENTING SAID METHOD

Abstract:
A method of laser processing of a metallic material with control of the transverse power distribution of the laser beam (B) in a working plane and a machine and computer program for the implementation of said method A method of laser processing of a metallic material is described by means of a focused laser beam (B) having a predetermined transverse power distribution on at least one working plane of the metallic material comprising the steps of: - providing a laser beam emitting source; - leading the laser beam along a beam transport optical path to a working head arranged in proximity to the material; - collimating the laser beam along an optical axis of propagation incident on the material; - focusing the collimated laser beam in an area of a working plane of the material; and - conducting said focused laser beam along a working path on the metallic material comprising a succession of working areas wherein the laser beam is shaped: - by reflecting the collimated beam by means of a deformable controlled surface reflecting element having a plurality of independently movable reflection areas and - by controlling the arrangement of the reflection areas to establish a predetermined transverse power distribution of the beam on at least one working plane of the metallic material as a function of the area of the current working plane and/or of the current direction of the working path on the metallic material.
Title of the invention: A SINGLE MODULE OPTIMIZING CONTROLLER CAPABLE OF OPERATING ONE OF A PLURALITY OF DIFFERENT TYPES OF HVACR SYSTEMS

Abstract:
Described herein is a single unit optimizing controller (100) capable of operating any known type of heating ventilation air conditioning and refrigeration HVACR system (an HVACR system is denote by reference numeral (101)) which include all ACR systems. HVACR system (101) takes the form of an air conditioning unit. The controller includes a communications section (102) for communicating with one or more remote controller terminal in the form of a web application (103) and a control section (104). The air conditioning unit of HVACR system (101) includes at least one cooling unit having a compressor wherein the control section is operatively associated with HVACR system (101) for selectively activating or deactivating the at least one cooling unit based on one or more settings received from web application (103) via communications section (102).
The invention relates to a method of manufacturing a three dimensional structure having an internal space the method comprising the following steps: (a) arranging a preform of fibre reinforced material in a first configuration in which the preform is supported by a support structure; (b) selectively curing the preform when laid out on the support structure to produce an intermediate preform the intermediate preform comprising at least two selectively cured portions interconnected by at least one non-selectively cured portion; and (c) moving the two selectively cured portions with respect to one another to form the three dimensional composite structure in which the two portions at least partially surround the internal space of the structure. A preform of fibre reinforced material for use in a method of manufacturing a three dimensional structure having an internal space also forms part of the invention. The invention also relates to a device and intermediate preforms for the manufacture of a fibre-reinforced composite structure.

No. of Pages : 24 No. of Claims : 25
The present invention concerns a nuclear reactor (1) cooled by liquid metal (for example a heavy metal like lead or lead-bismuth eutectic) or by molten salts provided with a heat exchanger (10) in particular a steam generator having inlet of the primary fluid in the lower part and circumferential outlet window (17) in the vicinity of the free surface (H4) of the primary fluid in the cold collector (7). The outlet window (17) is located in an intermediate position with respect to the tube bundle (13) partially raised with respect to the free surface (H4) in the cold collector (7) and supplied with primary fluid throughout its height by means of an ancillary device (26) for creating an underpressure in the cover gas (28) of the exchanger with respect to the cover gas (29) in the vessel (2). The raising of the exchanger and the positioning of the outlet window (17) in the vicinity of the free surface (H4) of the primary coolant help to minimize the displacement of primary fluid in the event of accidental release of secondary fluid inside the heat exchanger.
Various systems devices and methods are provided for facilitating communication between a forecourt controller and a fuel dispenser. In certain aspects a fuel controller translator is provided for translating commands transmitted between the forecourt controller and the fuel dispenser. For example where the forecourt controller transmits commands that are compatible with the payment terminal but not with the fuel controller the fuel controller translator can translate the commands received from the forecourt controller into a format compatible with the fuel controller. Conversely the fuel controller translator can translate commands received from the fuel controller into a format that is compatible with the forecourt controller.
The present invention relates to an aqueous composition with enhanced stability for hard surface applications containing at least one lipophilic compound and at least one copolymer in which the at least one copolymer is a comb-type branched copolymer exhibiting an alternating sequence of monomeric units (a) having at least one hydrophilic group and monomeric units (b) having at least one lipophilic side chain. Moreover, a method for producing said composition as well as the use of the composition is concerned.

No. of Pages: 15  No. of Claims: 20
USE OF COMPOUNDS HAVING N 2-OXO-13-DIOXOLANE-4-CARBOXAMIDE UNITS IN TWO-COMPONENT ADHESIVES

Abstract:
What is described is the use of compounds having n 2-oxo-13-dioxolane-4-carboxamide units as reactive component in 2-component adhesives especially for preparation of hydroxypolyurethanes or hydroxypolycarbonates for adhesive applications where n is a number greater than or equal to 2. Also described are corresponding two-component adhesives and bonding methods. The second component used in the two-component adhesive is preferably a polyfunctional hardener compound preferably selected from polyamines having two or more amine groups and polyols having two or more alcoholic hydroxyl groups.

No. of Pages: 32 No. of Claims: 19
The invention relates to a structural member comprising: a core portion that defines at least one anchor point the core having at least one surface a fibre tow arranged in a closed loop on the surface of the core portion the loop defining a boundary of a space which contains the at least one anchor point and a protective shell formed from a woven fibre sheet material which covers the fibre tow and in which the core fibre tow and the protective shell are impregnated and bound together by a cured resin. The invention also relates to a method of constructing a structural member.
A semiconductor device may include a semiconductor die having an active region. The semiconductor device may also include a thermocouple mesh proximate to the active region. The thermocouple mesh may include a first set of wires of a first material extending in a first direction and a second set of wires of a second material. The second material may be different from the first material. In addition the second set of wires may extend in a second direction different than the first direction of the first wires.
The present invention provides a process for preparing an unsaturated alcohol of the formula (I) wherein one of R1 and R2 is preferably C2-C10-alkyl or C2-C10-alkenyl containing one double bond and the other one is preferably hydrogen or methyl; R3 is preferably hydrogen; which comprises subjecting an educt composition including at least 75 % by weight of an unsaturated aldehyde of the formula (II) wherein R1, R2 and R3 preferably have the above defined meanings to a hydrogenation in the presence of a catalyst and a tertiary amine; wherein the tertiary amine is used in an amount ranging from 0.001 to 0.7 % by weight based on the total amount of the liquid reaction mixture. The invention further relates to the nerol compound obtainable by the inventive process to a fragrance or aroma substance composition comprising the nerol compound obtainable by the inventive process to a method for imparting and/or intensifying an odor or flavor of a product and also to perfumed or aromatized products comprising a nerol compound obtainable by the inventive process.
An ore pellet, a preparation method therefor, and preparation equipment. The mass percent content of components in the ore pellet are: TFe 62.1% - 65.82%, FeO 0.2% - 0.58%, SiO2 1.9% - 6.13%, CaO 0.19% - 3.23%, MgO 0.18% - 0.52%, and Al2O3 0.58% - 2.66%. The preparation method comprises: a sintered ore powder is finely milled to produce a finely milled sintered powder; a pelletized powder and/or a boron-containing pelletized powder and the finely milled sintered powder are blended to produce a fine ore powder; a binding agent is added to the fine ore powder to produce an intermediate mixture; and the intermediate mixture sequentially undergoes pelleting and roasting to produce the ore pellet. The preparation equipment comprises a miller, a container, a pelletizer, and a roasting system. The sintered ore powder of poorer quality and higher environmental costs is utilized in the preparation to produce the ore pellet of better quality and lower environmental costs, thus creating a simple and favorable approach for the green development of the metallurgical industry. Figure 2 is the representative figure.

No. of Pages : 15  No. of Claims : 10
Provided is an automatic continuous image engraving device with which it is possible to reduce the installation space of the device. The present invention is characterized by being provided with an unengraved medium storage part 3 an engraved medium storage part 5 a medium dispenser 7 a medium positioning and conveying part 9 and an image engraving unit 11 the medium dispenser 7 releasing and transferring an unengraved card-shaped engraving medium at a transfer position TOP the medium positioning and conveying unit 9 returning the engraved card-shaped engraving medium from an engraving position EGP to the transfer position TOP after image engraving and the medium dispenser 7 suctioning the engraved card-shaped engraving medium in the transfer position TOP moving the medium upward moving the medium above the engraved medium storage part 5 and releasing and storing the medium.
### Title of the invention: VOICE ACTION DISCOVERABILITY SYSTEM

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2) VEMURI, Sunil
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**Abstract:**
Disclosed herein are methods, systems, and apparatus for receiving by a voice action system data specifying trigger terms that trigger an application to perform a voice action and a context that specifies a status of the application when the voice action can be triggered. The voice action system receives data defining a discoverability example for the voice action that comprises one or more of the trigger terms that trigger the application to perform the voice action when a status of the application satisfies the specified context. The voice action system receives a request for discoverability examples for the application from a user device having the application installed and provides the data defining the discoverability examples to the user device in response to the request. The user device is configured to provide a notification of the one or more of the trigger terms when a status of the application satisfies the specified context.

No. of Pages: 55
No. of Claims: 18
A method for operation of a terminal in a wireless communication system according to an embodiment of the present specification may comprise the steps of: receiving modulation and coding scheme (MCS) information for each of two or more codewords from a base station; on the basis of the MCS information determining a demodulation reference signal (DMRS) antenna port to which a phase tracking reference signal (PTRS) antenna port has been mapped; and receiving a PTRS on the basis of the DMRS antenna port wherein the DMRS antenna port is determined to be a DMRS antenna port having a lowest index from among one or more DMRS antenna ports included in a codeword having a highest MCS from among the two or more codewords.
The disclosure provides a method for performing automated visual motor response assessment by receiving motor response input responsive to presenting visual stimulation the method including: presenting a scene to a subject on a display; modulating contrast of a predetermined section of the scene; moving the predetermined section relative to the scene; providing a manual input device for tracking movement of the predetermined section; receiving tracked movement data from the manual input device; measuring a kinematic parameter of the tracked movement data; quantitatively refining the tracked movement; determining a relationship between at least one of the scene and quantitatively refined tracked movement; adjusting modulated contrast relative to the quantitatively refined tracked movement; and calculating a critical threshold parameter in relation to a subject.
Disclosed are methods and apparatus used in wireless communications. The methods and apparatus establish a codebook for use in sparse code multiple access (SCMA) encoded communications in particular. The SCMA codebook is configured to set the codebook for at least one layer (i.e. a user) to include a constellation of points having a first grouping of constellation points located at first radial distance from an origin in a complex plane and a second grouping of constellation points located at a second radial distance from the origin. This codebook arrangement provides increased gains at receivers by optimizing the constellation shape to improve the distance between constellation points (i.e. SCMA codebook performance) and in particular more robust performance when encountering amplitude and phase misalignment in uplink (UL) multiple access. [FIG: 5]
A device includes a memory device configured to store video data including a current block, and processing circuitry in communication with the memory. The processing circuitry configured to obtain a parameter value that is based on one or more corresponding parameter values associated with one or more neighbor blocks of the video data stored to the memory device, the one or more neighbor blocks being positioned within a spatio-temporal neighborhood of the current block, the spatio-temporal neighborhood including one or more spatial neighbor blocks that are positioned adjacent to the current block and a temporal neighbor block that is pointed to by a disparity vector (DV) associated with the current block. The processing circuitry is also configured to code the current block of the video data stored to the memory device. [Figure 8]
A communication system (101Y) comprises: a plurality of high-performance communication devices (10A-10D) located in a communication network (51Y) and having first communication processing capabilities; and low-performance communication devices (30A-30C) located in a communication network (52Y) and having second communication processing capabilities wherein that high-performance communication device (10B) of the high-performance communication devices (10A-10D) which is located at a boundary of connection with the low-performance communication devices (30A-30C) restricts relaying of broadcast frames transmitted/received in the communication network (51Y) to the communication network (52Y).
Abstract:
Methods and compositions for treating ophthalmic disease reducing retinal neovascularization and retinal vascular leakage using progenitor cells such as postpartum-derived cells and conditioned media from the cells are disclosed.

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<th>(54) Title of the invention : CATALYTIC ARTICLE COMPRISING COMBINED PGM AND OSC</th>
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<th>(57) Abstract :</th>
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<td>The present disclosure provides catalytic materials and catalytic articles formed therewith. The catalytic materials particularly can include an oxygen storage component comprising a solid solution of at least one platinum group metal and at least one rare earth metal oxide. In one or more embodiments catalytic materials can include a solid solution of a platinum group metal (e.g. palladium) and a mixed metal oxide (e.g. ceria/zirconia).</td>
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No. of Pages : 23 No. of Claims : 22
It depicts a method of speech recognition sequentially executed by a processor on consecutive speech segments that comprises:

obtaining digital information which is a spectrogram representation of a speech segment and extracting from it speech features that characterizes the segment from the spectrogram representation. Then a consistent structure segment vector based on the speech features is determined onto which machine learning is deployed to determine at least one label of the segment vector. A method of voice recognition and image recognition sequentially executed by a processor on consecutive voice segments is also described. A system for executing speech voice and image recognition is also provided that comprises client devices to obtain and display information a segment vector generator to determine a consistent structure segment vector based on features and a machine learning server to determine at least one label of the segment vector.
Title of the invention: A PROCESS FOR PRODUCING LEATHER

Abstract:
The present invention relates to a process for producing leather in which methanesulfonic acid (MSA) is used in the pickling step at a high pH value and the use of MSA is to improve the quality of the final leather product as well as to improve the environmental impact of the waste liquor.

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3) PENG, Biyu
4) ZHANG, Chunxiao
The invention relates to thermoplastic molding compounds containing: A) 20 to 99.9 wt.% of a thermoplastic polyamide B) 0.1 to 40 wt.% of an alkenyl succinic acid derivative which can be obtained by reacting polyisobutane (B1) with a number-average molecular weight Mn of 10000 to 50000 with maleic acid or derivatives (B2) thereof in a stoichiometric ratio of at least 2 equivalents of a-unsaturated mono- and dicarboxylic acid or derivatives (B2) thereof per reactive double bond in the polyisobutane (B1) at temperatures ranging from 180 to 250 °C for a duration of at least 15 minutes to 10 hours and at up to 10 bar overpressure wherein the derivatives are selected from the group consisting of anhydrides mono- or dialkyl esters and mixed esters and the reactive double bonds are the sum of the terminal α- and -double bonds in the polyisobutane (B1) and C) 0 to 60 wt.% of additional auxiliary agents the sum of the weight percentages of the components A) to C) equaling 100%.
The invention relates to a process for preparing a polyamide dispersion in polyol. The polyamide dispersion in polyol thus obtained is used in the preparation of a polyurethane. A respective process and the polyurethane are described.

No. of Pages : 17  No. of Claims : 15
Various aspects of the disclosure relate to channel sensing for independent links. In some aspects the independent links may involve a first device (e.g. a user equipment) communicating via different independent links with different devices (e.g. transmit receive points (TRPs) or sets of TRPs). For example the first device may communicate with a second device (e.g. a first TRP) via a first link and communicate with a third device (e.g. a second TRP) via a second link. In some scenarios first channel sensing information may be obtained for the first link and second channel sensing information may be obtained for the second link. In some aspects a decision of whether to transmit via one or more of the links may be based on the channel sensing on one or more of the links. In some cases the links may be grouped together as a channel sensing group.
Methods, systems, and devices for wireless communication are described that provide for uplink common burst symbol waveform selection and configuration. A waveform for the uplink common burst symbol may be selected to be a single-carrier frequency division multiplexing (SC-FDM) waveform, an orthogonal frequency division multiplexing (OFDM) waveform, or combinations thereof, based at least in part on information that is to be transmitted. A pattern for SC-FDM sequences may be selected to provide enhanced channel estimation through common pilot tones across different sequences, wideband or narrowband sequences may be selected based at least in part on information to be transmitted, and acknowledgment feedback may be transmitted in an end portion of the uplink common burst symbol in some cases to provide additional processing time for determining the acknowledgment feedback.

[Figure 19]
Title of the invention: Engineered Parasites for Delivering Protein to the Central Nervous System (CNS)

Abstract:
Provided are nucleic acid constructs Toxoplasma comprising same pharmaceutical compositions comprising same and methods using same for delivering a protein-of-interest to a tissue-of-interest of a subject such as the CNS and further treating a pathology which is treatable by administration of a therapeutic polypeptide in a central nervous system of the subject.

No. of Pages: 247 No. of Claims: 14
Operations of a shift worker platform include receiving a shifter designation command designating an employee of a common employer entity to become one of a plurality of shifters and receiving available shift data generated using an interactive job provider client calendar the available shift data representing an available work shift of a job provider client of the common employer entity. The operations further include establishing one or more matches between the available shift data and the plurality of shifters updating an interactive shifter calendar of each of the matching shifters to include a visual representation of the available work shift and receiving shift selection data generated using the shifter calendar of one of the matching shifters the shift selection data including a selection of the available work shift by the shifter. The operations further include updating the job provider client calendar to include a visual representation of the selection.

No. of Pages : 35 No. of Claims : 20
A plant pot comprising a first reservoir in which the first reservoir has a base and at least one first side wall extending upwardly from an outer periphery of the base. The plant pot further comprising at least one second side wall formed in the first reservoir extending upwardly from the base. The at least one second side wall forming a second reservoir in the first reservoir and wherein the second reservoir is integrally formed from the base of the first reservoir.
Adaptive communications focal plane arrays that may be implemented in e.g. a specially-configured camera that can be utilized to receive and/or process information in the form of optical beams are presented. A specialized focal plane array (FPA) having a plurality of optical detectors is utilized where one or more optical detectors are suppressed such that data is not allowed to be output from the one or more suppressed optical detectors and only a significantly smaller number or subset of optical detectors receiving optical beams are allowed to output data. In this way the rate at which data is to be output by an adaptive communications FPA (ACFPA) can be significantly reduced.
Abstract:
The proportional control valve for a fuel pump has a metering assembly within a tightly fit bore and a vent valve. The metering assembly includes a metering piston assembly a piston biasing spring an armature and a vent valve. The vent valve such as a ball is affixed to the armature and the metering piston assembly is configured around the vent valve in a manner that couples the metering piston to the armature. The metering piston assembly comprises a metering piston and a vent valve seat permanently joined together which contain a seal and a seat surface respectively between which the vent valve is permitted to move during the operation of the proportional control valve.

No. of Pages : 7 No. of Claims : 18
(54) Title of the invention : ON-DEMAND SYSTEM INFORMATION DELIVERY PROCEDURE

(51) International classification : H04W48/08H04W4/06
(31) Priority Document No : 62/443014
(32) Priority Date : 06/01/2017
(33) Name of priority country : U.S.A.
(86) International Application No : PCT/CN2018/071586
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(61) Patent of Addition to Application Number : NA
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(57) Abstract :
Apparatus and methods are provided for on-demand system information (SI) delivery. In one novel aspect an indicator in the minimum system information (MSI) indicates whether an SI or an SI group is delivered with broadcast or unicast. In one embodiment the UE receives a MSI obtains from the MSI the other SI (OSI) delivery mode indicator and sends an on-demand SI request if the OSI delivery mode indicates the unicast delivery mode otherwise acquires OSI information in a predefined or scheduled period if the OSI delivery mode indicates the broadcast delivery mode. In one embodiment the delivery mode is unicast and the SI request is sent at a timing or resource explicitly configured in a SI change notification message. In another embodiment the delivery mode is broadcast and updated SI is obtained based on the scheduling information included in the SI change notification message.

No. of Pages : 13 No. of Claims : 10
The present invention relates to a wireless communication system. More specifically the present invention relates to a method and a device for performing reflective QoS in wireless communication system the method comprising: receiving a DL SDAP PDU via a DL DRB with a first DRB ID from a network wherein the DL SDAP PDU includes a first indicator indicating whether to perform updating AS mapping rule for UL and a second indicator indicating whether to perform updating NAS reflective QoS rule for UL; and performing the updating of the AS mapping rule for UL or the updating of the NAS reflective QoS rule for the UL according to the first indicator and the second indicator.
Methods systems and apparatus including computer programs encoded on a computer storage medium for object detection and representation in images. In one aspect a method includes detecting occurrences of objects of a particular type in images captured within a first duration of time and iteratively training an image embedding function to produce as output representations of features of images that depict the same instance of an object of a particular type captured within a specified duration of time and dissimilar representations of features are generated for images that depict different instances of objects of the particular type.
**Title of the invention**: ANTI-SIRP ALPHA ANTIBODIES

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|                                   | 2)VAN ELSAS, Andrea |
|                                   | 3)VOETS, Erik |
|                                   | 4)VINK, Paul |
|                                   | 5)HULSIK, David Lutje |

**Abstract**: The present invention relates to anti-SIRPα antibodies as well as use of these antibodies in the treatment of diseases such as cancer and infectious disease.

No. of Pages : 223 No. of Claims : 63
In one aspect of the present invention a method for delivering a non-access stratum (NAS) message by a terminal in a wireless communication system may comprise the steps of: transmitting an uplink (UL) NAS message including a session management (SM) message to an access and mobility management function (AMF); and receiving from the AMF an indication message indicating that the SM message is unrouteable wherein indication information indicating that the SM message is unrouteable is delivered to an SM sublayer of the terminal.

No. of Pages : 115 No. of Claims : 15
A display system with video see-through eye display unit is disclosed. The eye display unit includes: at least one camera unit; at least one image forming module; and an optical deflection module including at least one double sided light reflecting optical element which is at least partially reflecting to light arriving from both sides thereof. The camera unit is configured for collecting light arriving from a region of interest of a scene along a first optical path intersecting the optical deflection module and generating image data indicative of the region of interest. The image forming module is configured for receiving imagery data indicative of images to be projected to an eye of a user and generating and projecting the received images to propagate along a second optical path intersecting the optical deflection module. The double sided light reflecting optical element of the optical deflection module is arranged in the display system to be located in front of the eye while intersecting the first and second optical paths and is oriented to define the first optical path (between the camera unit and the scene) and the second optical path (between the image forming unit and the eye) such that the camera unit has a point of view substantially similar to line of sight of the eye.

No. of Pages : 14 No. of Claims : 18
Title of the invention: ORGANISM INDUCING DEVICE AND ORGANISM INDUCING UNIT

Abstract:
This organism inducing unit installed on an installation surface is provided with a tile-shaped main body; a plurality of electrodes installed on the surface of the main body; and a control means which can individually control power applied to each of the plurality of electrodes by using power supplied from a predetermined power source.

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No. of Pages: 28 No. of Claims: 12
A control system for regulating operative control of a surgical instrument by a remote surgeon input device. The surgical instrument is supported by an articulated robot arm and comprises an end effector connected to a shaft by an articulated coupling. The remote surgeon input device is capable of operatively controlling the surgical instrument by controlling articulation of the end effector and controlling articulation of the robot arm and coupling. On receiving a request to engage operative control of the surgical instrument by the surgeon input device the control system initially engages operative control of articulation of the robot arm and coupling by the surgeon input device whilst maintaining disengagement of operative control of articulation of the end effector by the surgeon input device. Subsequently the control system engages operative control of articulation of the end effector by the surgeon input device following a manipulation of the surgeon input device.
Title of the invention: METHOD FOR PERFORMING AMF REGISTRATION-RELATED PROCEDURE BY UDM IN WIRELESS COMMUNICATION SYSTEM AND DEVICE THEREFOR

An embodiment of the present invention relates to a method for performing by unified data management (UDM) a procedure related to registration of an access and mobility management function (AMF) in a wireless communication system the method comprising the steps of: receiving a message related to registration of a serving AMF of a UE which includes access type information and AMF identity (ID) information from a first AMF by the UDM; and when a second AMF registered as a serving AMF of the UE which corresponds to the access type information exists transmitting a deregistration-related message to the second AMF by the UDM.
The invention relates to a sliding bearing element (2) particularly a radial sliding bearing element or a thrust washer particularly for the arrangement of the crankshaft in internal combustion engines optionally with a metal support layer (4) particularly consisting of steel and with a metal carrier layer (6) containing aluminium and tin and an overlay (8) applied thereto the overlay (8) being a polymer layer (10) or an electrodeposited coating (12). The invention is characterised in that an upper side (14) of the metal carrier layer (6) is irradiated before the application of the overlay (8) such that it has a so-called reduced trough height SVK of 0.5 - 1.5 µm and a so-called empty volume of the troughs VVV of 0.06 - 0.16 µm³/µm² and the overlay (8) is applied to the upper side (14) of the carrier layer (6) treated in this way. The invention also relates to a method for the production thereof. Figure 1 is the representative figure.
Various features related to a single bit ACK/NACK feedback for CBG based transmissions in a communication system are described. In an aspect a base station may transmit to a UE a set of CBGs of a TB including a first subset of CBGs and a second subset of CBGs the first subset of CBGs being transmitted on at least partially punctured resources. The base station may receive an ACK/NACK from the UE based on the transmitted set of CBGs and retransmit to the UE one of the full set of CBGs or the first subset of CBGs based the received ACK/NACK. In an aspect a UE may decode the set of CBGs received from the base station transmit ACK/NACK feedback based on a result of the decoding and receive based on the transmitted ACK/NACK feedback a retransmission of either the full set of CBGs or the first subset of CBGs.
When a base station is capable of using multiple different types of waveforms for a downlink communication to a UE the UE may waste processing resources attempting to receive and/or process the downlink communication. For example the UE may cycle through various possible types of waveforms in an attempt to process the downlink communication. Techniques described herein use waveform signaling for downlink communications to notify the UE of a type of waveform being used for a downlink communication thereby conserving UE resources (e.g. processing resources memory resources RF resources and/or the like) that would otherwise be wasted attempting to process the downlink communication using multiple types of waveforms.
Title of the invention: UPLINK ACK RESOURCE ALLOCATION IN NEW RADIO

Abstract:
A method and apparatus for enabling an UE to selecting acknowledgement/non-acknowledgement (ACK/NACK) resources from a subset of a gNB resource pool. The example method may receive from an gNB a radio resource control (RRC) configuration indicating a UE-specific resource set that is a subset of a gNB resource pool. The UE may determine one or more ACK/NACK resources from the UE-specific resource set for an upcoming physical uplink control channel (PUCCH). In some aspects the UE may determine the one or more ACK/NACK resources based on receiving from the gNB a physical downlink control channel (PDCCH) including a corresponding ACK/NACK resource configuration. In other aspects the RRC may contain multiple resource subsets and the UE may determine the one or more ACK/NACK resources based on determining a size of a payload for a UCI to be transmitted on the PUCCH. The aspects may thus enable dynamic ACK/NACK resource allocation.
Methods systems and devices for wireless communication are described. A user equipment (UE) may receive network search information related to the accessible bands. In some examples the UE may receive network search information from a server that has access to the network search information. The UE may receive the network search information directly from the server or through another wireless device. In other examples a base station may broadcast network search information on an anchor carrier. The UE may tune to a carrier of a first radio access network to receive the network search information and use the network search information to assist connecting to a second radio access network. The network search information may include for example a network name or network ID a technology type band or channel information security information or credentials.
Methods systems and apparatuses for wireless communication are described. A user equipment (UE) may receive information from a network node. The system information may include inter-frequency configuration and measurement reporting configuration. The UE may perform a measurement of a frequency or multiple frequencies that are associated with the inter-frequency configuration. Subsequent to the measurement the UE may transmit a report of the measurement of the frequency or multiple frequencies to the network node during a radio resource control (RRC) connection procedure based on the measurement reporting configuration.
Certain aspects of the present disclosure generally relate to wireless communication. In some aspects a user equipment (UE) may receive an indication of whether to use uplink reference signals or downlink reference signals for uplink precoder determination. The UE may selectively transmit a plurality of uplink reference signals or one or more measurement reports based at least in part on the indication wherein the one or more measurement reports are determined based at least in part on measuring a plurality of downlink reference signals. The UE may receive an indication of a precoder of a plurality of precoders to be used to precode an uplink communication wherein the precoder is identified based at least in part on the plurality of uplink reference signals or the one or more measurement reports. The UE may precode the uplink communication using the precoder. Numerous other aspects are provided.
Abstract:
The present disclosure provides methods for copying a data page in a flash memory device using a flash memory controller. A method may comprise receiving at the host flash controller a copy command from a host processor in response to the copy command transmitting a read command to the unmanaged flash memory storage device via a bus wherein the read command indicates particular data receiving the particular data from the unmanaged flash memory storage device via the bus storing the particular data in a data buffer included in the host flash controller and transmitting to the unmanaged flash memory storage device via the bus a write command to write the particular data.
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(72) Name of Inventor:
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2) YANG, Yang
3) SARKIS, Gabi

(57) Abstract:
A wireless device may decode a polar coded codeword using a successive cancelation list (SCL) decoder. The decoder may implement a distributed feedback architecture where the decoder stores one or more state maps and a set of bit arrays in memory for each layer of decoding. For different phases of decoding in a layer the decoder may update the state maps and sets of bit arrays to limit the resources used. Additionally when performing bit updating following the decoding of a bit of the codeword the decoder may not update each layer of the decoding process. Instead each sub-decoder may send a state map up to the calling layer for bit updating when the sub-decoder has completed its invocation and may not return any intermediate state maps prior to completing invocation. Thus each decoder and sub-decoder may perform bit updating just twice reducing the complexity and latency of decoding.

No. of Pages: 41 No. of Claims: 30
A base station may make more efficient use of resources by transmitting data in a control region of a slot in addition to a data region. In order to avoid performance loss the base station may adjust the data transmission in the control region in comparison to a data transmission in a data region and may signal an indication to a UE to assist the UE in receiving the data transmission in the control region. An apparatus for wireless communication at the UE receives the indication from the base station regarding the data transmission in the control region and uses the indication to perform rate matching or demodulation of the data transmission in the control region. The indication may indicate any of a different MCS/rank/TPR a reduced MCS/rank/TPR an MCS/rank/TPR delta a control span for a group of UEs and a starting symbol for the data transmission. The indication may also indicate that there is no data transmitted on resources in the control region.
### Title of the invention: UPLINK ACK RESOURCE ALLOCATION IN NEW RADIO

**Abstract:**

A method and apparatus for enabling an UE to selecting acknowledgement/non-acknowledgement (ACK/NACK) resources from a subset of a gNB resource pool. The example method may receive from an gNB a radio resource control (RRC) configuration indicating a UE-specific resource set that is a subset of a gNB resource pool. The UE may determine one or more ACK/NACK resources from the UE-specific resource set for an upcoming physical uplink control channel (PUCCH). In some aspects the UE may determine the one or more ACK/NACK resources based on receiving from the gNB a physical downlink control channel (PDCCH) including a corresponding ACK/NACK resource configuration. In other aspects the RRC may contain multiple resource subsets and the UE may determine the one or more ACK/NACK resources based on determining a size of a payload for a UCI to be transmitted on the PUCCH. The aspects may thus enable dynamic ACK/NACK resource allocation.
A method an apparatus and a computer program product for wireless communication are provided. The apparatus may determine channel state information (CSI) feedback based at least in part on a channel quality information (CQI) table and a CSI reference resource size of the apparatus wherein at least one of the CSI feedback or the CQI table is modified based at least in part on a modulation configuration of the apparatus; and report the CSI feedback. Numerous other aspects are provided.
(54) Title of the invention: FREQUENCY HOPPING FOR CONTROL RESOURCE SET WITH SINGLE CARRIER WAVEFORM

(51) International classification: H04L5/00 H04B1/713
(31) Priority Document No: 62/478957
(32) Priority Date: 30/03/2017
(33) Name of priority country: U.S.A.
(86) International Application No: PCT/US2018/018699
Filing Date: 20/02/2018
(87) International Publication No: WO 2018/182876
(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) LUO, Tao
3) AKKARAKARAN, Sony
4) MALIK, Rahul
5) KADOUS, Tamer
6) REDDY, Akula

(57) Abstract:
Methods systems and devices for wireless communication are described. A base station may identify control information to be transmitted in a slot to a user equipment (UE). The base station may determine a configuration for splitting a control resource set for the control information into a first component control resource set and a second component control resource set within a supported bandwidth of the UE. The first component control resource set may be frequency diverse and time diverse from the second component control resource set. The base station may transmit the configuration to the UE.

No. of Pages: 44 No. of Claims: 30
Polar coding using two or more concatenated cyclic redundancy check (CRC) data values may enhance CRC-aided successive cancellation list (CA-SCL) decoding in a communication system. A polar encoding method may include determining first CRC data from source data combining the source data and the first CRC data to form first combined data determining second CRC data from at least one of the first CRC data and the first combined data and combining the source data the first CRC data and the second CRC data to form second combined data. Methods may also utilize flexible or supplemental error detection (EDC) bits and/or one or more intermediate sets of EDC bits. Techniques discussed herein can benefit communicating devices in terms of communication latency transmission throughput and power consumption.
**Title of the invention:** MOBILITY ENHANCEMENT WITH CHANNEL STATE INFORMATION REFERENCE SIGNALS (CSI-RS)

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<td>WO 2018/175908</td>
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<td>(57) Abstract</td>
<td>Certain aspects may help enhance mobility of a UE for example utilizing downlink and/or uplink reference signals to assist in locating and/or handing over a UE in a cell with multiple transmit reception points (TRPs).</td>
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5) JI, Tingfang  
6) GAAL, Peter

**No. of Pages:** 30  
**No. of Claims:** 30
The present disclosure generally relates to methods apparatus and computer readable medium for implementing the methods for transmitting multi-bit SR (SRs) from a user equipment (UE). The UE receive from a base station a radio resource control (RRC) message from the base station. The RRC message may indicate that uplink component carriers (CCs) of the UE are to be assigned to a plurality of uplink CC groups. Upon receipt of the RRC the UE may assign the uplink CCs to the plurality of uplink CC groups. A multi-bit SR may be generated for each group of the plurality of uplink CC groups. The UE may transmit the multi-bit SR generated for each group of the plurality of uplink CC groups to the base station. Multi-bit SR transmission across different CCs may reduce latency in uplink grant and improve data transmission time.
A method includes sending communication data from a user equipment (UE) to a base station (eNB) during a random access procedure prior to establishment of a radio resource control (RRC) connection between the UE and the base station. Methods may allow a UE to use a message 1 (Msg1) communication or a message 3 (Msg3) communication to send data to a base station prior to the establishment of the RRC connection between the UE and the base station. Other aspects embodiments and features are also claimed and described.
**Title of the invention:** SYSTEM AND METHODS FOR SCHEDULING SOFTWARE TASKS BASED ON CENTRAL PROCESSING UNIT POWER CHARACTERISTICS

| (51) International classification | G06F9/48G06F9/50 |
| (31) Priority Document No         | 62/480092         |
| (32) Priority Date                | 31/03/2017        |
| (33) Name of priority country     | U.S.A.            |
| (86) International Application No | PCT/US2018/016091 |
| Filing Date                      | 31/01/2018        |
| (87) International Publication No | WO 2018/182844   |
| (61) Patent of Addition to Application Number | NA               |
| Filing Date                      | NA               |
| (62) Divisional to Application Number | NA               |
| Filing Date                      | NA               |

**Abstract:**

Methods and devices for scheduling processing tasks in a computing device configured with a group of low-power processor cores and at least one high-performance processor core may include identifying multiple application streams related to communication with a wireless local area network (WLAN) computing a total WLAN throughput requirement for the application streams and determining whether the total WLAN throughput requirement is less than a first threshold value. The first threshold value may be based on power characteristics of the low-power processor cores. In response to determining that the total WLAN throughput requirement is less than the first threshold value the computing device may schedule all processing tasks for the multiple application streams on one of the low-power processor cores.

No. of Pages : 27 No. of Claims : 24
Methods systems and apparatuses for wireless communication are described. In some wireless systems (e.g. new radio (NR) systems) a system may employ fixed or variable length uplink burst regions (e.g. in an uplink-centric slot). The base station may semi-statically or dynamically configure a user equipment (UE) or group of UEs for uplink control channel transmissions within an uplink burst region. In semi-static configuration the UE may determine the uplink control channel transmission based on values transmitted or indicated via higher-layer signaling or based on default values. In dynamic configuration the UE may receive an indication of actual resources used by the base station in a physical layer message. The UE may transmit using an uplink control channel transmission based on the indication. In some cases the base station may allocate code division multiplexing (CDM) groups based on which UEs are semi-statically configured and which are dynamically configured.
**Title of the invention:** CHANNEL STATE INFORMATION-REFERENCE SIGNAL CSI-RS ACQUISITION

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4) MANOLAKOS, Alexandros

**Abstract:** Various aspects of the disclosure relate to techniques associated with the acquisition of reference signals. In some aspects, a network may request a user equipment (UE) to measure a timing difference between neighbor cells and use that information to generate a CSI-RS configuration. The network sends the CSI-RS configuration to the UE to enable the UE to acquire a CSI-RS from a neighbor cell. In some aspects, a network may send timing-related information to a neighbor cell and the neighbor cell uses that information to transmit a CSI-RS.
(54) Title of the invention: TECHNIQUES TO PROVIDE INTERFERENCE DIVERSITY IN LOW LATENCY AND HIGH RELIABILITY WIRELESS COMMUNICATION SYSTEMS

(51) International classification: H04L1/18 H04L5/00 H04J11/00
(31) Priority Document No: 62/481079
(32) Priority Date: 03/04/2017
(33) Name of priority country: U.S.A.
(86) International Application No: PCT/US2018/025717
  Filing Date: 02/04/2018
(87) International Publication No: WO 2018/187224
(61) Patent of Addition to Application Number: NA
  Filing Date: NA
(62) Divisional to Application Number: NA
  Filing Date: NA

(57) Abstract:
Techniques are described for wireless communication. A method for wireless communication at a user equipment (UE) includes receiving an indication of a transmission time interval (TTI) configuration; determining a scrambling sequence initialization timing based at least in part on a TTI numerology associated with the TTI configuration; and communicating with the base station on a downlink or an uplink according to a scrambling sequence initialized based at least in part on the determined scrambling sequence initialization timing. The TTI configuration is one TTI configuration in a plurality of available TTI configurations for communicating with a base station.

No. of Pages: 53 No. of Claims: 30
Systems and methods for operating a cluster transformer operably coupled to cluster of DFIG wind turbines in low-wind conditions are provided. A wind turbine cluster system can include at least one DFIG module a cluster transformer and a control device configured to control operation of the cluster transformer based at least in part on a wind parameter. Each DFIG module can include a doubly fed induction generator comprising a rotor configured to generate AC power at a first voltage a stator configured to generate AC power at a second voltage and a power conversion system coupled to the rotor to convert power at the first voltage to power at the second voltage. The cluster transformer can be configured to receive power at the second voltage from the at least one DFIG module and convert the power at the second voltage to power at a third voltage.
**Abstract:**

Certain aspects of the present disclosure relate to methods and apparatus synchronization configuration in different operation modes using communications systems operating according to new radio (NR) technologies. For example a method for wireless communications by a base station (BS) may include determining an operation mode of the BS determining a transmission configuration of at least one of a one or more synchronization channels or a one or more synchronization signals based on the operation mode and transmitting the one or more synchronization channels or the one or more synchronization signals based on the determined transmission configuration.

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(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application: 04/10/2019
(21) Application No. 201927040223 A
(43) Publication Date: 13/12/2019

(54) Title of the invention: NEW RADIO SYNCHRONIZATION CONFIGURATION IN DIFFERENT OPERATION MODES

(51) International classification: H04W56/00
(31) Priority Document No: 62/485512
(32) Priority Date: 14/04/2017
(33) Name of priority country: U.S.A.
(86) International Application No: PCT/US2018/023468
    Filing Date: 21/03/2018
(87) International Publication No: WO 2018/190992
(61) Patent of Addition to Application Number: NA
    Filing Date: NA
(62) Divisional to Application Number: NA
    Filing Date: NA

(57) Abstract:

Certain aspects of the present disclosure relate to methods and apparatus synchronization configuration in different operation modes using communications systems operating according to new radio (NR) technologies. For example a method for wireless communications by a base station (BS) may include determining an operation mode of the BS determining a transmission configuration of at least one of a one or more synchronization channels or a one or more synchronization signals based on the operation mode and transmitting the one or more synchronization channels or the one or more synchronization signals based on the determined transmission configuration.

No. of Pages: 34  No. of Claims: 30
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An exemplary method for intelligent compression defines a threshold value for a temperature reading generated by a temperature sensor. Data blocks received into the compression module are compressed according to either a first mode or a second mode the selection of which is determined based on a comparison of the active level for the temperature reading to the defined threshold value. The first compression mode may be associated with a lossless compression algorithm while the second compression mode is associated with a lossy compression algorithm. Or both the first compression mode and the second compression mode may be associated with a lossless compression algorithm however for the first compression mode the received data blocks are produced at a default high quality level setting while for the second compression mode the received data blocks are produced at a reduced quality level setting.
Title of the invention: PRECODED SOUNDING REFERENCE SIGNAL TRANSMISSION WITH ASYMMETRIC TRANSMIT AND RECEIVE ANTENNAS

Abstract:
Methods, systems, and devices for wireless communication are described. A user equipment (UE) may obtain an interference and noise covariance matrix for a plurality of antennas of the UE. The UE may generate an approximated covariance matrix based on the interference and noise covariance matrix and a number of the antennas of the plurality of antennas associated with transmit operations at the UE. The number of the antennas associated with transmit operations at the UE may be fewer than a total number of the antennas. The UE may precode a sounding reference signal (SRS) using the approximated covariance matrix and transmit the precoded SRS using the antennas associated with the transmit operations.
Methods systems and devices for wireless communication are described that provide for a single bit or multiple bit scheduling request (SR). The SR may be transmitted by a user equipment (UE) to a base station and may indicate that the UE has data to be transmitted to the base station. The SR may include an indication of the priority level associated with the data to be transmitted to the base station which may be based on the data type logical channel or numerology associated with the data to be transmitted to the base station.
Title of the invention: TECHNIQUES AND APPARATUSES FOR SIGNAL QUALITY MEASUREMENTS FOR NARROWBAND INTERNET OF THINGS (NB-IOT) DEVICES

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<td>BHATTAD, Kapil</td>
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Abstract:
Techniques described herein permit a narrowband Internet of Things (NB-IoT) user equipment (UE) to combine narrowband reference signals (NRS) with other signals which the NB-IoT UE already receives to improve measurement accuracy. These other signals may require different modifications to be combined with the NRS depending on the type of signal. Techniques described herein provide indications of how the UE is to combine different types of signals with an NRS in order to improve measurement accuracy.

No. of Pages: 37  No. of Claims: 30
**Title of the Invention:** Predictive Beamforming and Subarray Selection

**Abstract:**
A wireless device of the present disclosure may be able to reduce the time needed to determine a subarray and/or beamforming direction used for mmW communication. An apparatus may maintain first information associated with a correlation between each of a plurality of wireless device orientations and a plurality of nodes at least one subarray and a corresponding beamforming direction. The apparatus may communicate with a first node using a first beamforming direction selected from the first information. In certain aspects the first beamforming direction may be correlated with a first orientation of a first subarray at the wireless device and the first node. The apparatus may perform a handoff procedure from the first node to a second node when a position of the first subarray changes from the first orientation to a second orientation.

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**Name of Inventor:**
1) Li, Junyi
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No. of Pages: 51
No. of Claims: 30
The invention relates to a liquid-distilling device comprising: a vapour-impermeable dome (1) configured to contain in a lower part of the volume thereof the liquid to be distilled; a heat pump (2) disposed inside the dome (1) and provided with a condenser that releases heat and an evaporator that absorbs heat respectively forming a warm part and a cool part of the heat pump; a radiator (21) connected to the warm part of the heat pump (2) suitable for evaporating the liquid to be distilled; a condenser tank (22) connected to the cool part of the heat pump (1) and suitable for condensing the evaporated liquid and collecting the distillate; and a collector tube (3) connected to the condenser tank (22) for the outlet of the distillate.
Beverage dispensing system comprising a pressure housing comprising a first housing part 12 12 having a connector aperture 22 and a second housing part 14 14. The system further comprises a pair of connectors 24 24 connectable to the connector aperture in a pressure-tight sealing connection. The pair of connectors 24 24 comprises a first connector 24 having a through-going hole for allowing guiding a first tapping line 20 through the through-going hole and a second connector 24 being connectable to a second tapping line. The system further comprises a pair of beverage containers 16 16 both accommodating a carbonated beverage and having a beverage outlet. A first beverage container 16 of the pair of beverage containers comprises the first tapping line 20 communicating with the beverage outlet. A second beverage container 16 of the pair of beverage containers has an openable seal for establishing connection from the beverage outlet to the second connector 24. The system further comprises a pressure inlet.
Title of the invention: TWO-PHASE BACKOFF FOR ACCESS PROCEDURE IN WIRELESS COMMUNICATION SYSTEMS

Abstract:
A two-phase backoff mechanism for LTE access procedure is proposed where backoff handling is applied differently in two separate phases. During the first phase network-controlled reattempts involves adaptation to radio conditions. Reattempts due to collisions ramping of power and other robustness parameters needed to compensate for unpredictable conditions can be handled in the first phase. During the second phase UE-controlled reattempts continues for other conditions. UE can reattempt at a lesser rate to alleviate the worsening of the load and interference situation. As a result backoff handling is optimized towards LTE access procedures.
### Patent Application:

**Title of the Invention:** ENDOSTEAL GUIDE PIN POSITIONING TROCAR AND TROCAR FOR REMOVING SAID PIN

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### Abstract:

The invention relates primarily to the use of an endosteal guide pin for preparing a guide path for the implantation of a pedicle or orthopaedic screw the pin (1) having a head (2) intended to be provisionally implanted in a bone (16) and a guide rod (4) coaxial with and rigidly secured to the head (2) ending in a free end (5) intended to be at least level with the skin surface (17) of the patient when the pin (1) is in the implanted position in the bone (16) wherein the pin (1) has a first coupling means (6) intended at least to secure it to and release it from at least one portion of a positioning trocar (8) and a second coupling means (6) intended at least to secure it to a removal trocar (8). The invention also relates to a trocar (8) for positioning a guide pin (1) which trocar incorporates said guide pin (1) and to a trocar for removing said pin (1).

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2) HOA, Nguyen-Thanh Denis
| (54) Title of the invention: DEVICE FOR STIMULATING OPTIC NERVE FIBER |
|---|---|
| (51) International classification | :A61N1/36A61F2/14 |
| (31) Priority Document No | :NA |
| (32) Priority Date | :NA |
| (33) Name of priority country | :NA |
| (86) International Application No | :PCT/CN2017/079743 |
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| (61) Patent of Addition to Application Number | :NA |
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| Filing Date | :NA |

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|---|---|
| LIN, Pokang |

| (57) Abstract: |
|---|---|
| Provided is a device for stimulating optic nerve fibers (22) comprising: a plurality of columnar electrodes (3 4 40) and a power supply device (6 7) wherein the plurality of columnar electrodes (3 4 40) are respectively parallel to a length direction of a human eye optic nerve (10 50) and are arranged around the human eye optic nerve (10 50) along a circumferential direction of the human eye optic nerve and each of the plurality of columnar electrodes (3 4 40) has a length; The power supply device (6 7) is used for supplying power to the plurality of columnar electrodes (3 4 40); The human eye retina (12) has a plurality of optic nerve fibers (22) and the plurality of optic nerve fibers (22) connect the human optic nerve (10 50) and the human eye macular area (14) in a multi-layered manner and the plurality of columnar electrodes (3 4 40) stimulate a plurality of optic nerve fibers (22) around the human eye optic nerve (10 50) in an electrical stimulation manner. |

No. of Pages: 17  No. of Claims: 13
In a metal anode cell in which the anode mainly comprises a metal such as aluminum magnesium zinc lithium etc., self discharge readily occurs when the anode and an electrolytic solution are in contact and the problem of large capacity loss of the cell readily occurs. The purpose of the present invention is to provide a metal anode cell in which this self-discharge amount is reduced and which together with mitigating the capacity loss of the cell during use or during storage also stably varies the cell output according to demand. Provided is a metal anode cell having: a cathode electrode that uses a cathode active material air etc. as a cathode; a metal anode electrode comprising mainly a metal such as aluminum magnesium zinc lithium etc.; and an electrolytic solution wherein the metal anode cell is provided with an immersion means with which the metal anode electrode is immersed in the electrolytic solution according to demand.
**Title of the invention**: CROSS-SUB-BAND QUASI CO-LOCATION SIGNALING

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**Abstract**:
Methods systems and devices for wireless communication are described. A base station may configure a first sub-band and a second sub-band of a system bandwidth for communication with a user equipment (UE). The base station may determine a spatial quasi co-location (QCL) relationship between the first sub-band and the second sub-band and may transmit signaling to the UE that indicates the determined spatial QCL relationship. Upon receiving the signaling the UE may derive based on the indicated spatial QCL relationship spatial parameters (e.g. beam width pointing angle etc.) for communication with the base station via the second sub-band. The spatial parameters may be derived based on spatial parameters used for reception of a downlink transmission from the base station via the first sub-band. Subsequently the UE may communicate with the base station via the second sub-band using the derived spatial parameters.

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2) LUO, Tao  
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5) CHAKRABORTY, Kaushik
Aspects of the disclosure relate to enabling new radio (NR) cellular quality of service (QoS) for non-internet protocol (IP) data sessions. In a particular aspect of the disclosure a non-IP based protocol data unit (PDU) session is established and a packet filter is selected based on at least one aspect of a data packet formatted in a non-IP format associated with the non-IP PDU session. A transmission of the data packet is then filtered according to the packet filter.
A method for refining radio frequency communication link quality in a communication system may include obtaining measured beam pair quality data between one or more transmit beams and one or more receive beams during a measurement time interval. Beam pair quality data may be measured using an antenna array in which each antenna has a weight. A combination of antenna weights defines an antenna array configuration or beam. The method may further include during a communication time interval following the measurement time interval adjusting an antenna weight combination in response to the measured beam pair quality data and a previous antenna array configuration to define a next antenna array configuration. A transmitter and receiver may communicate information using the next antenna array configuration during the communication time interval. Other aspects embodiments and features are also claimed and described.
Configuration of downlink and uplink partial subframes in shared radio frequency (RF) spectrum is discussed. The various described aspects provide for different configurations for start and end transmissions from base stations and user equipments (UEs) when transmitting over partial subframes. With downlink initial partial subframes a uniform puncturing may be used to reduce the number of resource elements (REs) available for downlink transmission without causing the base station to re-precude any of the data. Additional aspect for downlink partial subframe transmission allows for downlink control channels to identify multiple start points within the subframe at short downlink shared channel locations. On the uplink aspect UEs may be informed with configurations for both full and partial subframe transmissions. The UE will select which configuration to use based on whether it will transmit on full or partial subframes. Additionally a UE have scheduled or semi-scheduled modes for partial subframe transmissions.
Techniques are described herein to terminate a list decoding operation before its completion based on performing one or more error check processes. A transmitted codeword encoded using a polar code may include one or more error check vectors interspersed with one or more information vectors. Upon receiving the codeword a decoder may perform a list decoding operation on the received codeword. Upon decoding one of the error check vectors the decoder may determine whether at least one candidate path used in the successive cancellation list decoding operation passes an error check process based on the error check vector. If no candidate paths satisfy the error check process the decoder may terminate the list decoding operation. In some examples the decoder may recheck whether candidate paths satisfy the error check operation at intermediate positions between error check vectors. Such rechecking may occur while decoding information vectors.
Techniques are described for wireless communication. In one method a user equipment (UE) receives a timing synchronization signal (TSS) and a physical broadcast channel (PBCH) with the TSS based at least in part on a timing of the TSS within a broadcast channel transmission time interval (BCH TTI); determines the timing of the TSS within the BCH TTI; and demodulates the PBCH based at least in part on the TSS. In another method a base station allocates resources for a TSS and a PBCH within a BCH TTI; determines the TSS based at least in part on a timing of the TSS within the BCH TTI; and transmits on the resources allocated for the TSS and the PBCH the TSS and the PBCH with the TSS transmitted as a demodulation reference signal (DMRS) for the PBCH on at least one port used to transmit the TSS and the PBCH.
INTER-OPERATOR SRS RESOURCE COORDINATION IN SDM-COMP

Abstract:
Inter-operator sounding reference signal (SRS) resource coordination is discussed in spatial divisional multiplex (SDM) coordinated multipoint (CoMP) operations. The higher priority operator conveys SRS resource reservation information identifying the fraction of resources it intends to use. The lower priority operator observes this resource reservation information and selects to reserve SRS resources from the remaining fraction of resources if any for scheduling its own users. The lower priority operator will transmit its own resource reservation information identifying the amount of SRS resources that it has identified for the non-priority use.
PATENT APPLICATION PUBLICATION

INDIA

Date of filing of Application :09/10/2019

Publication Date : 13/12/2019

Title of the invention : METHODS FOR ADAPTING BEAM SCANNING FREQUENCIES IN MILLIMETER WAVE SYSTEMS

Abstract:
Technology herein selectively adjusts the frequency with which beam scanning is performed. Systems and methods herein determine present conditions of the UE and determine whether adjusting the current frequency of beam scanning is desired.

No. of Pages : 25 No. of Claims : 30
User equipment associated with a legacy network may utilize a bottom-to-top search technique to identify relevant control channel samples. Generating a control channel that is configured for the bottom-to-top search technique may lead to poor performance in a single-carrier waveform which may be disadvantageous as networks move toward New Radio. In some aspects described herein a base station generates a control channel that is configured to minimize gaps in the control channel and a user equipment performs a top-to-bottom search technique to identify relevant control channel samples. By using the top-to-bottom search technique degradation of single-carrier waveforms is reduced and efficiency is improved.
The present disclosure describes over-the-air UL-DL reciprocity calibration of UEs. In some embodiments the UE may perform the calibration at the UE while in other embodiments the BS may determine the calibration parameters for a UE and send the parameters to the UE for implementation. The BS may explicitly or implicitly transmit an UL channel estimate to the UE for use with the DL channel estimate. The UE determine calibration parameters to implement at the UE based on the BS feedback. Alternatively the BS may transmit UE calibration parameters determined as a byproduct if the BSs own calibration procedure. The UE may instead participate in a calibration procedure with another UE. Under any approach the UE may implement in its RF chain the results of the calibration procedure.
A closure assembly comprises a spout (1) having a spout body (11) with a seal portion and a tubular neck (13). The assembly further comprises a rotational plastic cap (2) which adapted to be manually rotated from the closed position in an opening direction. The cap has a top wall (21) and a downward depending skirt (22) and has two diametrically opposite wing parts (24) which are integrally moulded and extend in a vertical plane outward from the skirt in a lateral direction over a wing part length. The top portion (24b) of each of the two wing parts comprises at least one top protrusion (25) extending from the base portion (24b) over the height of the top portion and in a lateral direction along the wing part length over a top protrusion length. The top protrusion in a top view of the cap extends substantially in and/or opposed to the opening direction of the cap such that in a top view of the cap the top portion of each of the two wing parts extends along the wing part length over or outside the base portion thereof in a direction corresponding or opposed to the opening direction such that along each top protrusion length for a cross-section in a vertical plane of the opening direction the surface area of the at least one top protrusion contributes at least equally to the inertial moment as the surface area of the base portion.

No. of Pages : 13 No. of Claims : 13
The present disclosure describes various examples of a method an apparatus and a computer readable medium for signaling synchronization block patterns in wireless communications (e.g. 5th Generation New Radio (5G NR)). For example one of the methods described may include receiving by a user equipment (UE) a message including information of a configuration. The configuration includes at least a group of repetitions of one or more synchronization signal (SS) blocks in an SS burst set and the repetitions of the one or more SS blocks are configured into at least two groups. The method may further include determining by the UE which group of the at least two groups to search for during a synchronous neighbor cell search based on the information and at least one condition at the UE.
A transverse cutting system suitable for being used in a machine for the production of plastic film comprising a supporting structure (26) carrying a cutting unit (15) which are moved between a rest position away from a path of a plastic film (11) being wound and an operating position along said path of the plastic film the system comprising a rotating support (22) carrying a hot wire (16) and a rotating cap (17) associated with an idle roller (18) arranged transversally with respect to the path of the plastic film (11) which is moving forwards and an actuator (19) which controls the rotation of said rotating support (22) carrying said cap (17) and causes said cap (17) to interfere with said plastic film (11) before said hot wire (16) also interferes with said plastic film (11) wherein the same plastic film (11) thanks to the friction force generated by said cap (17) entrains it with it causing it to equalize the linear velocity of the plastic film (11).
**Title of the invention:** SHORTENED TRANSMISSION TIME INTERVAL (STTI) CONFIGURATION FOR LOW LATENCY COMMUNICATIONS

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**Abstract:**
Methods and apparatus are provided for shortened Transmission Time Interval (sTTI) configurations for low latency communications. A User Equipment (UE) receives at least one transmission in a first TTI of a first duration configured for the UE the first TTI assigned within a second TTI of a second duration wherein the first TTI is configured for Ultra-Reliable and Low-Latency Communications (URLLC) and uses at least in part a configuration for communicating using the second TTI.

No. of Pages: 40  No. of Claims: 30
Methods systems and devices for wireless communication are described. A transmitting device may identify a duration of a slot used for communications with a receiving device. The transmitting device may determine that the communications with the receiving device comprises frequency division duplexing (FDD) communications. The transmitting device may transmit communications to the receiving device during a first portion of the slot a duration of the first portion being less than the duration of the slot and the duration of the first portion is based at least in part on the determination that the communications comprise FDD communications. The transmitting device may select based at least in part on the determination that the communications comprise FDD communications and that the communications are transmitted during the first portion of the slot a hybrid automatic repeat request (HARQ) scheme to use during the communications.
The Patent Office Journal No. 50/2019 Dated 13/12/2019

(12) PATENT APPLICATION PUBLICATION  
(21) Application No.201927042885 A

(19) INDIA  
(22) Date of filing of Application :22/10/2019

(54) Title of the invention : POWER RELAY ASSEMBLY

(51) International classification : H01H45/12H02G5/00B60L11/18

(31) Priority Document No :10-2017-0092102

(32) Priority Date :20/07/2017

(33) Name of priority country : Republic of Korea

(86) International Application No :PCT/KR2018/006566

Filing Date :11/06/2018

(87) International Publication No :WO 2019/017593

(61) Patent of Addition to Application Number : NA

Filing Date : NA

(62) Divisional to Application Number : NA

Filing Date :NA

(57) Abstract :
Provided is a power relay assembly. A power relay assembly according to an exemplary embodiment of the present invention comprises: a support plate equipped with at least one electrical element on one surface thereof and comprising a plastic material having heat dissipation and insulation properties; and at least one bus bar which comprises a contact part which is electrically connected to the electrical element and directly contacts one surface of the support plate wherein the contact part of the bus bar is fixed to one surface of the support plate.

No. of Pages : 23 No. of Claims : 16

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The present invention relates to pyrimidinium compounds of formula (I) to the stereoisomers salts tautomers and N-oxides thereof their mixtures and to compositions comprising such compounds or mixtures. The invention also relates to methods and uses of these pyrimidinium compounds and of compositions thereof for combating and controlling animal pests. Furthermore the invention relates also to pesticidal methods of applying such substituted pyrimidinium compounds. The pyrimidinium compounds of the present invention are defined by the following general formula (I) wherein R1 R2 and Het are defined as in the description.

No. of Pages : 87 No. of Claims : 18
The disclosed thermoplastic molding compound contains a specific combination of at least three flame-retardant additives in addition to at least one thermoplastic polyamide and glass fibers.
A method and apparatus for downlink and uplink control management of component carriers during carrier aggregation in a new radio wireless communication system is disclosed. For example the method and apparatus include receiving at a user equipment (UE) a slot format indicator in at least one slot of at least one component carrier of a plurality of component carriers from a network entity where the at least one component carrier includes a group common Physical Downlink Control Channel (PDCCH) the slot format indicator within the group common PDCCH indicating at least slot structure information for one or more other component carriers from the plurality of component carriers; and communicating with the network entity using the at least slot structure information for the one more other component carriers.
Certain aspects of the present disclosure generally relate to wireless communication. In some aspects a user equipment may determine that a signal characteristic of a unicast signal is better than a signal characteristic of a broadcast signal; and/or transmit based at least in part on the determination a request for an update to a master information block or a minimum system information block to be provided to the user equipment using the unicast signal. In some aspects a base station may determine that a signal characteristic of a unicast signal associated with a user equipment (UE) is better than a signal characteristic of a broadcast signal broadcasted by the base station; and/or transmit based on the determination an update to a master information block (MIB) or a minimum system information block (MSIB) to the UE using the unicast signal. Numerous other aspects are provided.
Title of the invention: PHYSICAL SHARED CHANNEL TRANSMISSION TO ACKNOWLEDGEMENT DELAY OPTIMIZATION

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Abstract:
Methods systems and devices for wireless communication are described. A user equipment (UE) may receive data in a downlink transmission from a base station. After the UE successfully processes the data the UE may select a transmit time interval (TTI) in which to send an acknowledgement (ACK) of the data to the base station. In some examples the UE may select the TTI based on a delay that is a function of the processing abilities of the UE. Additionally or alternatively the UE may select the TTI based on a delay that is a function of the transmission parameters of the downlink transmission. After selecting the TTI the UE may send the ACK to the base station in the selected TTI.
Title of the invention: SELF-ALIGNED CONTACT (SAC) ON GATE FOR IMPROVING METAL OXIDE SEMICONDUCTOR (MOS) VARACTOR QUALITY FACTOR

Abstract:
A short-channel metal oxide semiconductor varactor may include a source region of a first polarity having a source via contact. The varactor may further include a drain region of the first polarity having a drain via contact. The varactor may further include a channel region of the first polarity between the source region and the drain region. The channel region may include a gate. The varactor may further include at least one self-aligned contact (SAC) on the gate and between the source via contact and the drain via contact.

No. of Pages: 21 No. of Claims: 20
Title of the invention: HIGH-BAND RESIDUAL PREDICTION WITH TIME-DOMAIN INTER-CHANNEL BANDWIDTH EXTENSION

Abstract:
A method includes decoding a low-band portion of an encoded mid signal to generate a decoded low-band mid signal. The method also includes processing the decoded low-band mid signal to generate a low-band residual prediction signal and generating a low-band left channel and a low-band right channel based partially on the decoded low-band mid signal and the low-band residual prediction signal. The method further includes decoding a high-band portion of the encoded mid signal to generate a time-domain decoded high-band mid signal and processing the time-domain decoded high-band mid signal to generate a time-domain high-band residual prediction signal. The method also includes generating a high-band left channel and a high-band right channel based on the time-domain decoded high-band mid signal and the time-domain high-band residual prediction signal.
The invention relates to a portable, battery-driven hydraulic unit (2) for hydraulic rescue tools, in particular for spreading or cutting tools, and to a rescue tool equipped therewith. The hydraulic unit (2) comprises at least one hydraulic pump (18), a hydraulic tank (25), an equalizing device (26) for hydraulic fluid, a manually actutable, hydraulic control valve (28), an electromechanical interface (15) for coupling and uncoupling, as required, at least one battery pack (16), a mechanical-hydraulic interface (4) for connecting a hydraulic tool (3), and an electric motor (17) which can be driven by the electrical power of the battery pack (16) and which is designed to drive the hydraulic pump (18). The electric motor (17) is in the form of a disc motor (19), the axial length (22) of which running parallel to the longitudinal axis of its output shaft (21) being shorter than its external diameter (23).

No. of Pages : 14 No. of Claims : 12
Title of the invention: IMPROVED QC-LDPC CODES

Abstract:
An apparatus determines a code block size (CBS) of information bits contained in a codeword of low-density parity check (LDPC) coding. The apparatus compares the CBS with at least one threshold, determines, based on a result of the comparison, a Kb number and determines a Kp number based on a code rate and the Kb number. The apparatus generates a parity check matrix. An information portion of the parity check matrix is a first matrix formed by M number of second square matrices. M is equal to Kp multiplied by Kb. A total number of columns in the Kb number of second square matrices is equal to a total number of bits of the CBS. One or more matrices of the M number of second square matrices are circular permutation matrices. The apparatus operates an LDPC encoder or an LDPC decoder based on the parity check matrix.

No. of Pages : 32 No. of Claims : 14
A method for reporting location information of a user equipment (UE) to a network node apparatus by the UE in a wireless communication system may comprise the steps of: receiving information indicating a service area where a data service is provided on the basis of a local area; receiving location change reporting configuration information of a session of the data service; and when the UE enters or leaves the service area while the session of the data service has been established, reporting information on a location change of the UE on the basis of the location change reporting configuration information.
Techniques and examples of overhead reduction for linear combination codebook and feedback mechanism in mobile communications are described. A user equipment (UE) receives from a base station of a network one or more reference signals via a communication link between the UE and the base station. The UE constructs a channel state information (CSI) feedback by utilizing a correlation of channel responses in a frequency domain to reduce feedback overhead. The UE then transmits the CSI feedback to the base station.
The present invention relates to a smart controller which wirelessly communicates with a portable terminal so as to control the portable terminal, the smart controller comprising: a main button unit including a direction button for generating a first signal by being pressed laterally and a selection button, disposed at the central portion or one side of the direction button, for generating a second signal by being pressed downward; and an auxiliary button unit including at least one button provided to change an operation mode of the main button unit or perform a particular function of the portable terminal.

No. of Pages : 24 No. of Claims : 20
Novel UE operation modes are proposed to improve the power consumption for potentially less mobile UEs, both for stationary UEs, almost stationary UEs, and limited mobility UEs by optimizing neighbor cell measurements and/or by optimizing UE wakeup sequence. Optimized neighbor cell measurements mean that the procedure can be done less frequently or not at all during certain conditions. Optimized wakeup sequence (with less wakeup time) mainly affect paging performance via UE implementations. It is an object of the current invention to allow UE to be aware of its mobility states, via either explicit configuration or self-estimation, and adjust its wakeup and measurement behaviors accordingly. Also, some UEs are allowed to switch among different mobility states, while other UEs are fixed in a given mobility state.
A user verification system is configured to identify likely interactors approaching points of sale to ensure accurate interactions and to provide loyalty rewards. In an example, a merchant system installs a user verification device with a stereo camera at an interacting device to capture images of the user and to obtain data from the device. The user verification device uses the stereo camera to determine the location of the user to determine if the user is a likely interactor. The user verification device recognizes motions of the user that are indicative of an interactor, such as reaching across the counter or looking at the operator. The user verification device identifies or verifies the interactor based on the record data or the display data. If the user is the likely interactor, then the system conducts a hands-free interaction with the user account or provides loyalty rewards to the user account.
**Title of the invention:** METHOD FOR USING LIPASE ENZYMES FOR CLEANING

| (51) International classification       | :C07K14/37,C11D3/386,C12N1/21 |
| (31) Priority Document No              | :62/505500                    |
| (32) Priority Date                     | :12/05/2017                   |
| (33) Name of priority country         | :U.S.A.                       |
| (86) International Application No     | :PCT/US2018/031969            |
| Filing Date                           | :10/05/2018                   |
| (87) International Publication No     | :WO 2018/209026               |
| (61) Patent of Addition to Application Number | :NA                              |
| Filing Date                           | :NA                            |
| (62) Divisional to Application Number | :NA                              |
| Filing Date                           | :NA                            |

**Abstract:**
A method for removing a stain from a surface using lipase enzymes, and a formulation comprising a lipase enzyme.

No. of Pages : 83 No. of Claims : 12
A process for the preparation of a copper/zirconia-catalyst for the hydrogenation of ethyl acetate to ethanol comprising the steps: a) preparation of an aqueous solution of water-soluble copper and zirconium salts; b) precipitation of a solid from this solution by addition of a basic precipitating agent, and optionally aging of the solid; c) separation and washing of the solid; d) drying of the solid; e) calcination of the solid; characterized in that the precipitation of the solid in step b) is carried out at a pH in the range of from 7 to 7.5, and the basic precipitation agent contains a mixture of Na2CO3 and NaOH.
The invention is directed to a polyisocyanurate foam, its use in a sandwich panel, a sandwich panel comprising the foam and a process for preparing the sandwich panel. The polyisocyanurate foam of the present invention shows a good adhesion property even without adhesion promoter, improved processability of PIR systems at lower temperature (=50 °C) and an improved flame resistance property.
The present invention relates to a polyester consisting of (A) repeating units derived from an acid component which consists of (a1) 2,5-furandicarboxylic acid, (a2) an aliphatic C4-C36 dicarboxylic acid or a mixture of a plurality of aliphatic C4-C36 dicarboxylic acids, and (a3) a dicarboxylic acid containing sulphonate groups, and of (B) repeating units derived from a diol/amine component, and optionally of further repeating units (C) and/or branching agents (E), and of (D) repeating units derived from at least one di- or oligofunctional compound selected from the group consisting of a di- or oligoisocyanate and a di- or oligoisocyanurate. The present invention also relates to the production of said polyesters and the use thereof.

No. of Pages: 19  No. of Claims: 13
(12) PATENT APPLICATION PUBLICATION (21) Application No.201927049861 A
(19) INDIA
(22) Date of filing of Application :04/12/2019 (43) Publication Date : 13/12/2019

(54) Title of the invention : FLOORINGS PREPARED FROM COMPOSITES COMPRISING EXPANDED THERMOPLASTIC ELASTOMER PARTICLES

(51) International classification :B32B9/04,B32B5/16,B32B5/18
(31) Priority Document No :PCT/CN2017/083701
(32) Priority Date :10/05/2017
(33) Name of priority country :China
(86) International Application No :PCT/EP2018/062029
   Filing Date :09/05/2018
(87) International Publication No :WO 2018/206657
(61) Patent of Addition to
   Application Number :NA
   Filing Date :NA
(62) Divisional to Application
   Number :NA
   Filing Date :NA

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6)LUO, Kun

(57) Abstract :
The present invention relates to a composite comprising (1) a bottom layer comprising expanded thermoplastic elastomer particles; and (2) a surface layer on the bottom layer, and the use of such composites in flooring surfaces sports, sports hall floorings, swimming pool hall floorings, running tracks, sports facilities, playgrounds, kindergartens, park walkway and pavements

No. of Pages : 13 No. of Claims : 20
A breakout transition assembly including a plurality of optical fibers extending through a cable, a plurality of furcation tubes and a housing with a cable inlet and a furcation chamber. The cable, optical fibers and furcation tubes are fixed relative to the housing with a volume of hardened epoxy in the furcation chamber. The cable inlet includes a clearance that tapers between a first end and a second end. In another aspect, the breakout transition can also include a breakout holder comprising at least one guide, such that the plurality of furcation tubes are fixedly received in the at least one guide in the breakout holder, and the volume of hardened epoxy retains the breakout holder in an engaged position with the transition body.
An independent mounting module is receivable within a housing of an injector configured to dispense a substance from a cartridge insertable into the housing through an injection needle of the injector. The mounting module includes a first mount and a second mount. The first mount is configured to receive a driving assembly engageable with the cartridge to expel the substance therefrom. The first mount is selectively securable to the injector housing and has a cantilevered mounting arm extending therefrom. The second mount is configured to receive an actuator operatively connectable with the driving assembly. The second mount is attached to the cantilevered mounting arm and suspended therefrom, thereby being supported by the cantilevered mounting arm.

No. of Pages : 7 No. of Claims : 19
The invention relates to an image recording device for a body of a motor vehicle. The device comprises a housing part, an optical element having an outer surface, and a driving part for engaging an engaging part of a movable cleaning device. The movable cleaning device comprises furthermore a cleaning part, preferably formed by a wiper part, for at least partly cleaning the outer surface. The driving part is furthermore for driving the movable cleaning device in order to have the cleaning part at least partly clean the outer surface of the optical element. The image recording device is adjustable between a first condition in which the image recording device allows at least partly introducing or taking out the engaging part of the movable cleaning device and a second condition in which the image recording device prevents the engaging part of the movable cleaning device being taken out or being introduced.
**Title of the invention:** CROSS-DEVICE HANDOFFS

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<td>Filing Date</td>
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<td>(62) Divisional to Application Number</td>
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**Abstract:**
A first computing device may receive an indication of user input that is at least a part of a conversation between a user and a first assistant executing at the first computing device. The first assistant and/or an assistant executing at a digital assistant system may determine whether to handoff the conversation from the first assistant executing at the first computing device to a second assistant executing at a second computing device. In response to determining to handoff the conversation to the second assistant executing at the second computing device, the first assistant and/or the assistant executing at the digital assistant system may send to the second computing device a request to handoff the conversation which includes at least an indication of the conversation.

No. of Pages: 67 No. of Claims: 18
### Title of the invention

INITIALIZING A CONVERSATION WITH AN AUTOMATED AGENT VIA SELECTABLE GRAPHICAL ELEMENT

### International classification

G06F17/30, G06F9/451

### Priority Document No

15/589645

### Priority Date

08/05/2017

### Name of priority country

U.S.A.

### International Application No

PCT/US2018/031448

### Filing Date

07/05/2018

### International Publication No

WO 2018/208694

### Patent of Addition to Application Number

NA

### Filing Date

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### Divisional to Application Number

NA

### Filing Date

NA

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### Abstract:

Methods, apparatus, systems, and computer-readable media are provided for invoking an agent module in an automated assistant application in response to user selection of a selectable element presented at a graphical user interface rendered by a non-automated assistant application. The invoked agent module can be associated with other content rendered in the non-automated assistant graphical user interface, and can optionally be invoked with values that are based on user interactions via the non-automated assistant application. Responsive content can be received from the agent module in response to the invocation, and corresponding content provided by the automated assistant application via an automated assistant interface. In these and other manners, selection of the selectable element causes transition from a non-conversational interface, to a conversational automated assistant interface - where an agent (relevant to content in the non-conversational interface) is invoked in the automated assistant interface.

No. of Pages: 24  No. of Claims: 15
An account management system identifies a user near a location from among a plurality of facial images. An account management system establishes a facial template for a user based on an image of the user. When the user is approaching a location, the system receives an indication that an identification is desired and receives a plurality of facial images captured by a camera proximate to the location. The system identifies each pupil in a first image of the plurality of facial images and calculates a distance between each pupil. The system compares the calculated distance to a standard distance, the standard distance being a determined distance or distance range between pupils of a person near the location. Based on the comparison, the system determines whether the first image is associated with a user near the location. If not, the method is repeated on one or more other images.
Various solutions for cross-link interference measurements with respect to user equipment and network apparatus in mobile communications are described. A node of a wireless network may receive a cross-link interference (CLI) measurement configuration. The node may determine a measurement slot according to the CLI measurement configuration. The node may determine whether to perform a CLI measurement in the measurement slot according to the CLI measurement configuration. The node may receive a CLI reference signal (RS) in the measurement slot. The node may perform the CLI measurement in the measurement slot.
**Title of the invention:** OPTICAL COMPONENT, MOBILE PHONE COVER PLATE, AND MOLD USED FOR MANUFACTURING THE OPTICAL COMPONENT

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**Abstract:**

An optical component (100f), a mobile phone cover plate provided with the optical component (100f), and a mold used for manufacturing the optical component. The optical component (100f) comprises at least two optical units (1f and 2f) provided in an arrangement. The optical units (1f and 2f) comprise optical structures (11f and 21f) for producing light and shadow effects, where the light and shadow effects produced by the optical structures (11f and 21f) of either of the optical units (1f and 2f) are distinguished from the light and shadow effects produced by the optical structures (11f and 21f) of the other of the optical units (1f and 2f). The optical units (1f and 2f) are provided in the arrangement, at least two different optical units (1f and 2f) are provided, and the optical structures (11f and 21f) provided can produce different light and shadow effects. The optical component (100f) provides improved visual effects, when applied in the field of decorations, increases decorative effects, allows decorations to be visually rich, and provides a vivid picture.

**No. of Pages:** 16  **No. of Claims:** 19
The invention discloses an optical film, a mold and an electronic device cover plate, wherein the optical film comprises: a carrier, and a graphic structure layer. The graphic structure layer is located on a surface of the carrier, the graphic structure layer comprises a continuously arranged micro-nano structure, and the micro-nano structure is a convex structure and/or a concave structure. The optical film visually has a stereoscopic effect of a depth or a height of not less than 1 mm. The optical film provided by the invention is provided with the graphic structure layer, and the graphic structure layer is arranged in a continuous micro-nano structure, so that the stereoscopic effect can be realized only by using the one-layer structure, and there is a visual difference of depth or height of at least 1 mm, which reduces the thickness of the film and the manufacturing process, and well reduces the cost.
A patterned structure, an optical film, a mold, and an electronic device cover. The patterned structure comprises multiple small short lines forming an included angle with the horizontal direction; at least one among the multiple small short lines is of a raised or recessed structure; adjacent small short lines are spaced at an interval. In the patterned structure, the direction of the small short lines can be changed in a certain direction arbitrarily or according to the desired effect. The included angles between the small short lines and the horizontal direction can be changed from 0 to 180 degrees. An optical film having the patterned structure. The optical film having said pattern forms at least one light pillar under a certain light source, and reduces to a certain degree the impact of rainbow patterns on the lighting effects. An electronic device cover using the patterned structure or the optical film, which achieves different lighting effects for the electronic device cover by flexibly changing the degree of rotation of the small short lines (30).
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(57) Abstract:
Apparatus and methods are presented for characterising the environment of a user platform. In certain embodiments RF signals are transmitted and received through an antenna array having a plurality of elements activated in a predetermined sequence, and received signals are manipulated with round-trip path corrections to enhance the gain of the array in one or more directions. Objects in those directions are detected from the receipt of returned transmitted signals, and the manipulated received signals processed to estimate range to those objects. In other embodiments RF signals transmitted by one or more external transmitters are received and manipulated to enhance the gain of a local antenna array or antenna arrays associated with the one or more transmitters to enhance the gain of the arrays in one or more directions. Objects in those directions are detected from the receipt of reflected signals from the transmitters, and the manipulated received signals processed to estimate range to those objects.

No. of Pages : 42 No. of Claims : 48
The present invention relates to an siRNA-polymer conjugate, and a method for preparing the same, and more specifically, to a hybrid conjugate formed by covalently bonding siRNA and a polymeric compound for improving the biostability of siRNA, and to a preparation method of the hybrid conjugate. The conjugate of the present invention can improve the biostability of siRNA, thereby achieving an efficient delivery of therapeutic siRNA into cells and exhibiting the activity of siRNA even with a relatively low concentration. Therefore, the conjugate can advantageously be used not only as an siRNA treatment tool for cancers and other infectious diseases, but also as a novel type siRNA delivery system.
In an embodiment, a battery module fixation arrangement includes gaps arranged between fixation recesses and fixation pins. Upon insertion of a battery module into a battery module compartment, each gap is at least partially filled with a curing material that cures after the insertion. In a further embodiment, the fixation recesses may include cartridges that comprise a foam material along with multiple components that mix to form the curing material after the insertion. FIG: 7
Embodiments are directed to establishing a direct electrical bond between a bonding connector of a contact plate and a battery cell in a battery module. In a first embodiment, an oscillating laser is used to weld the bonding connector to a battery cell terminal over a target area over which the bonding connector makes non-flush contact. In a second embodiment, the bonding connector is flattened to reduce a gap between the bonding connector and the target area on the battery cell terminal, and then laser-welded (e.g., using an oscillating or non-oscillating laser). In a third embodiment, at least one hold-down mechanism is applied over the bonding connector to secure the bonding connector to the battery cell terminal, after which the bonding connector is laser-welded to the battery cell terminal. FIG: 16F
(54) Title of the invention : MODIFIED STREAM SYNCHRONIZATION

(51) International classification : H04L67/00
(31) Priority Document No : 09003751.6
(32) Priority Date : 16/03/2009
(33) Name of priority country : EUROPEAN UNION
(86) International Application No : PCT/EP2010/053407
  Filing Date : 16/03/2010
(87) International Publication No : NA
(61) Patent of Addition to Application Number : NA
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(62) Divisional to Application Number : 1701/MUMNP/2011
  Filed on : 16/08/2011

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(57) Abstract :
A method and system for inter-destination synchronization of at least a first and a second stream is described, wherein the second stream is the output stream of a media stream modification unit using the first stream as an input stream. The method comprises the steps of : providing first arrival time information of a packet in the first stream arriving at a first synchronization point and second arrival time information of a packet in the second stream arriving at a second synchronization point; providing synchronization correlation information on the synchronicity relationship between said input stream and said output stream; and, calculating delay information on the basis of the first and second arrival time information and the synchronization correlation information.
(54) Title of the invention: 1, 2-POLYUNSATURATED FATTY ACID COMPOUNDS

(51) International classification: A61K 9/00 A61K 31/00

(31) Priority Document No: P200900725
(32) Priority Date: 16/03/2009
(33) Name of priority country: Spain

(86) International Application No: PCT/ES2010/070153
Filing Date: 15/03/2010

(87) International Publication No: NA

(61) Patent of Addition to Application Number: NA
Filed on: 2147/MUMNP/2011
Filing Date: 12/10/2011

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(57) Abstract:
Use of derivatives of polyunsaturated fatty acids as medicaments or functional foods. The present invention relates to the use of 1,2-derivatives of fatty acids in the treatment or prevention of diseases the common aetiology whereof is based on alterations (having any origin) of the lipids of the cell membrane such as, for example, alterations in the level, in the composition or in the structure of said lipids. Furthermore, for diseases wherein regulation of the composition and structure of lipids of a membrane (or of proteins interacting therewith) may induce reversion of the pathological state.
(19) INDIA

(22) Date of filing of Application :25/06/2019

(21) Application No.201928025267 A

(43) Publication Date : 13/12/2019

(54) Title of the invention : PLASMA KALLIKREIN BINDING PROTEINS

(51) International classification :C07K2317/00
(31) Priority Document No :61/430,442
(32) Priority Date :06/01/2011
(33) Name of priority country :U.S.A.
(86) International Application No :PCT/US2012/020470

(36) Title of the invention: PLASMA KALLIKREIN BINDING PROTEINS

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

(62) Divisional to Application Number :1190/MUMNP/2013

(57) Abstract :
PLASMA KALLIKREIN BINDING PROTEINS Plasma kallikrein binding proteins and methods of using such proteins are described.

No. of Pages : 310 No. of Claims : 11

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The Patent Office Journal No. 50/2019 Dated 13/12/2019 60230
Figure 5C Multiple virtual source locations may be defined for a volume within which audio objects can move. A set-up process for rendering audio data may involve receiving reproduction speaker location data and pre-computing gain values for each of the virtual sources according to the reproduction speaker location data and each virtual source location. The gain values may be stored and used during run time, during which audio reproduction data are rendered for the speakers of the reproduction environment. During run time, for each audio object, contributions from virtual source locations within an area or volume defined by the audio object position data and the audio object size data may be computed. A set of gain values for each output channel of the reproduction environment may be computed based, at least in part, on the computed contributions. Each output channel may correspond to at least one reproduction speaker of the reproduction environment.
A packaging (10) for a flexible container (12), in particular for a disposable bag for use in a bioreactor, comprises a bottom part (14) for fixing a first portion (58) of the container (12), a ceiling part (16) for fixing an opposite second portion (60) of the container (12), a receiving space (20) which on a first side is defined by the bottom part (14) and on an opposite second side is defined by the ceiling part (16), and struts (18) arranged between the bottom part (14) and the ceiling part (16), which fix a defined distance between the bottom part (14) and the ceiling part (16). Fig. 1 is the representative figure.
METHOD FOR PRODUCING PYRROLE DERIVATIVE, AND INTERMEDIATE THEREOF

The present invention provides a method for producing an atropisomer of a pyrrole derivative having an exceptional mineralocorticoid receptor antagonizing effect, and an intermediate thereof. A method for producing an atropisomer of a pyrrole derivative using a compound represented by (B) [in the formula, \( R_1 \) indicates a C1-C4 alkyl group, and \( R_2 \) indicates a 2-hydroxyethyl group or carboxymethyl group] as a production intermediate.
FILTER CARTRIDGES FOR JUG CONTAINER Filter cartridge designs for use in conjunction with valves of the faucet or spigot type for withdrawing liquids at relatively low pressures from containers such as gravity feed jugs, ice chests, coolers, collapsible travel bags, and the like, wherein the filter cartridge housings have various shapes and attachment schemes to the spigot subassembly. The filter assembly includes a fluid dispensing spigot (12) having a portion located on the outside of a container, and an extension (14) extending therethrough, such that said spigot (12) is in fluid communication with fluid within said container and a cylindrical filter housing (22) rotatably attached to and coaxial with said spigot extension (14),...
A method, an apparatus, and a computer program product for wireless communication are provided in which at least one bit rate for allocating network resources from a broadcast-multicast service center (BM-SC) is received. The network resources are then allocated based on the at least one bit rate. Moreover, all evolved Node Bs (eNBs) in a broadcast/multicast area are informed of the network resource allocation. Additionally, the network resources are allocated for a session based on a first bit rate, wherein the first bit rate is greater than a guaranteed bit rate (GBR), and the network resource allocation is adjusted to a second bit rate based on the occurrence of an event, wherein the second bit rate is equal to GBR. FIG. 9
Title of the invention: PHARMACEUTICAL COMPOSITIONS

Abstract:
PHARMACEUTICAL COMPOSITIONS: A pharmaceutical composition for use in treatment of at least one of asthma and COPD comprising a fixed dose combination consisting of R-(+)-budesonide and arformoterol, and, optionally, one or more pharmaceutically acceptable excipients, wherein said fixed dose combination of the R-(+)-budesonide and arformoterol is formulated for administration once per day.

No. of Pages: 44 No. of Claims: 18
GENERATING BINAURAL AUDIO IN RESPONSE TO MULTI-CHANNEL AUDIO USING AT LEAST ONE FEEDBACK DELAY NETWORK

In some embodiments, virtualization methods for generating a binaural signal in response to channels of a multi-channel audio signal, which apply a binaural room impulse response (BRIR) to each channel including by using at least one feedback delay network (FDN) to apply a common late reverberation to a downmix of the channels. In some embodiments, input signal channels are processed in a first processing path to apply to each channel a direct response and early reflection portion of a single-channel BRIR for the channel, and the downmix of the channels is processed in a second processing path including at least one FDN which applies the common late reverberation. Typically, the common late reverberation emulates collective macro attributes of late reverberation portions of at least some of the single-channel BRIRs. Other aspects are headphone virtualizers configured to perform any embodiment of the method.
(54) Title of the invention : TERMINAL DEVICE AND BUFFER PARTITIONING METHOD

(57) Abstract :  
Provided is a terminal device with which deterioration in hybrid automatic repeat request (HARQ) retransmission performance can be inhibited by continuing a downlink (DL) HARQ process for DL data before and after changing the uplink link-DL configuration. In this device, a decoder (210) stores, in a retransmission buffer, DL data transmitted from a base station, and decodes the DL data, and a wireless transmitter (222) transmits a response signal generated using a DL-data-error detection result. A soft buffer is partitioned into a plurality of regions for each retransmission process on the basis of the highest values among retransmission process numbers respectively stated in a plurality of configuration patterns which can be set in the terminal (200).
Title of the invention: METHOD AND APPARATUS FOR DETERMINING REFERENCE PICTURE SET OF IMAGE

Abstract:
A method of determining a reference picture set (RPS), which is a set of reference pictures used in predictive decoding of a current picture that is to be decoded, is provided. The method includes: obtaining a flag indicating whether the RPS is determined based on picture order count (POC) values of the current picture and a previous picture or whether the RPS is determined based on an index of a reference RPS, which is an identification value of the reference RPS which is one of pre-defined RPSs and is referred to in determining the RPS, and a delta RPS which is a difference value between a POC value of a reference picture included in the reference RPS and a POC value of a reference picture included in the RPS, and determining the RPS according to a value of the flag. FIG: 1A
CHEMICAL COMPOUND USEFUL AS INTERMEDIATE FOR PREPARING A CATECHOL-O-METHYLTRANSFERASE INHIBITOR

There is disclosed a methylated intermediate which may be demethylated to provide an inhibitor of catechol-O-methyltransferase useful in the treatment of Parkinson's disease. Also disclosed are methods of making and using said intermediate.

No. of Pages : 54 No. of Claims : 37
DEVICE AND METHOD FOR EXECUTION OF HUFFMAN CODING

In this invention, the design of the Huffman table can be done offline with a large input sequence database. The range of the quantization indices (or differential indices) for Huffman coding is identified. For each value of range, all the input signal which have the same range will be gathered and the probability distribution of each value of the quantization indices (or differential indices) within the range is calculated. For each value of range, one Huffman table is designed according to the probability. And in order to improve the bits efficiency of the Huffman coding, apparatus and methods to reduce the range of the quantization indices (or differential indices) are also introduced.
Title: GENETICALLY MODIFIED SITE SPECIFIC INTEGRATION HOST CELL

The present invention relates to stable and high-producing site-specific integration (SSI) host cells, e.g., Chinese hamster ovary (CHO)-derived host cells, methods to produce and to use them.

No. of Pages: 77 No. of Claims: 11
| (12) PATENT APPLICATION PUBLICATION | (21) Application No.201928045877 A |
| (19) INDIA | |
| (22) Date of filing of Application :11/11/2019 | (43) Publication Date : 13/12/2019 |

(54) Title of the invention : COMPANDING APPARATUS AND METHOD TO REDUCE QUANTIZATION NOISE USING ADVANCED SPECTRAL EXTENSION

| (51) International classification | :H04W 88/00 |
| (31) Priority Document No | :61/809,028 |
| (32) Priority Date | :05/04/2013 |
| (33) Name of priority country | :U.S.A. |
| (86) International Application No | :PCT/US2014/032578 |
| Filing Date | :01/04/2014 |
| (87) International Publication No | :NA |
| (61) Patent of Addition to Application Number | :NA |
| Filing Date | :NA |
| (62) Divisional to Application Number | :2282/MUMNP/2015 |
| Filed on | :10/08/2015 |

(57) Abstract :
Embodiments are directed to a companding method and system for reducing coding noise in an audio codec. A compression process reduces an original dynamic range of an initial audio signal through a compression process that divides the initial audio signal into a plurality of segments using a defined window shape, calculates a wideband gain in the frequency domain using a non-energy based average of frequency domain samples of the initial audio signal, and applies individual gain values to amplify segments of relatively low intensity and attenuate segments of relatively high intensity. The compressed audio signal is then expanded back to substantially the original dynamic range that applies inverse gain values to amplify segments of relatively high intensity and attenuating segments of relatively low intensity. A QMF filterbank is used to analyze the initial audio signal to obtain a frequency domain representation. FIG. 5

No. of Pages : 33 No. of Claims : 26
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(54) Title of the invention : RELAY ANTENNA INDEXING FOR SHARED ANTENNA COMMUNICATION

| (51) International classification | : H04L 29/00 |
| (31) Priority Document No | : 61/075,691 |
| (32) Priority Date | : 25/06/2008 |
| (33) Name of priority country | : U.S.A. |
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| Filing Date | : 05/02/2009 |
| (87) International Publication No | : NA |
| (61) Patent of Addition to Application Number | : NA |
| Filing Date | : NA |
| (62) Divisional to Application Number | : 2545/MUMNP/2010 |
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(57) Abstract :
Providing for distributed processing for a set of wireless communication devices to implement distributed, multi-antenna communication via one or more of the devices is described herein. By way of example, a relay link can be established between one or more wireless transceivers. The link can be utilized to distribute an indexing parameter to a remote transceiver. The indexing parameter can be employed to identify a set of index-specific instructions configured for a particular wireless node of a network. Based on the instructions and indexing parameter, such transceiver can locally compute and transmit, or receive and decode, a stream of traffic data for the multi-antenna communication. Thus, for instance, a P-P link between UTs can be employed to implement increased throughput and reduced interference benefits of multi-antenna communication for unplanned configurations of mobile devices. [Figure 3]

![Diagram](image)

No. of Pages : 50 No. of Claims : 15

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(54) Title of the invention: EXPORTING REAL TIME NETWORK TRAFFIC LATENCY AND BUFFER OCCUPANCY

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(31) Priority Document No: 61/702,320
(32) Priority Date: 18/09/2012
(33) Name of priority country: U.S.A.
(86) International Application No: PCT/US2013/059180
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(87) International Publication No: NA
(61) Patent of Addition to Application Number: NA
    Filing Date: NA
(62) Divisional to Application Number: 444/MUMNP/2015
    Filed on: 03/03/2015

(57) Abstract:
Techniques are presented herein to facilitate the monitoring of occupancy of a buffer in a network device. Packets are received at a network device. Information is captured describing occupancy of the buffer caused by packet flow through the buffer in the network device. Analytics packets are generated containing the information. The analytics packets from the network device for retrieval of the information contained therein for analysis, replay of buffer occupancy, etc. [FIG.1]

No. of Pages: 21 No. of Claims: 20
A screen display (142) method and apparatus of a mobile terminal (100) is provided for changing a screen represented by an index to another screen represented by a newly selected index. A screen display (142) method of a mobile terminal (100) includes displaying a page represented by an index, the page including an index region having a plurality of indices and a content region displaying content corresponding to the index highlighted in the index region, selecting a new index in the index region according to a selection input, and changing the page represented by the highlighted index for a new page represented by the new index, the new page appearing in a direction from a position of the new index to a position of the highlighted index. Fig. 2
A method of notifying an operation state change is provided. A network is formed among devices that can be used by a user and that can perform network communication. When an operation state change of a first device in the network occurs, at least one device is sought which is currently used by the user in the network. Information regarding the operation state change of the first device is transmitted to the at least one device such that the information regarding the operation state change of the first device can be displayed on a display unit of the at least one device. [FIG. 1]
Grid members, namely a runner (10) and wall angle (400) for suspended ceiling grids, are disclosed. Certain embodiments of the runner and the wall angle have two web portions (28, 30) and at least one distinct indent portion (62) to define a space between the web portions. An adhesive (56) may be disposed within one or more of the indent portions (62) to adhere the two web portions (28, 30) to each other. Certain embodiments of the runner or wall angle have flange portions (32, 34) that may have indent portions as well. One or more of these indent portions may contain adhesive. Some embodiments of the runner or wall angle have overturned cap portions on the flange portions, and an adhesive may be placed between the overturned cap portions and upwardly facing surfaces of the flange portions. Fig. 1
Some implementations provide a die that includes a magnetoresistive random access memory (MRAM) cell array that includes several MRAM cells. The die also includes a first ferromagnetic layer positioned above the MRAM cell array, a second ferromagnetic layer positioned below the MRAM cell array, and several vias positioned around at least one MRAM cell. The via comprising a ferromagnetic material. In some implementations, the first ferromagnetic layer, the second ferromagnetic layer and the several vias define a magnetic shield for the MRAM cell array. The MRAM cell may include a magnetic tunnel junction (MTJ). In some implementations, the several vias traverse at least a metal layer and a dielectric layer of the die. In some implementations, the vias are through substrate vias. In some implementations, the ferromagnetic material has high permeability and high B saturation. [Fig. 5]
CONVERSION OF BIOMASS

Biomass feedstocks (e.g., plant biomass, animal biomass, and municipal waste biomass) are processed to produce useful products, such as fuels. For example, systems are described that can convert feedstock materials to a sugar solution, which can then be chemically converted to furfural and furfural-derived products.

No. of Pages : 45 No. of Claims : 24

CONTINUED TO PART- 4