1. Coherent LADAR using intra-pixel quadrature detection

Date: 2018-06-19 | ID: 10000000

Abstract: A frequency modulated (coherent) laser detection and ranging system includes a read-out integrated circuit formed with a two-dimensional array of detector elements each including a photosensitive region receiving both return light reflected from a target and light from a local oscillator, and local processing circuitry sampling the output of the photosensitive region four times during each sample period clock cycle to obtain quadrature components. A data bus coupled to one or more outputs of each of the detector elements receives the quadrature components from each of the detector elements for each sample period and serializes the received quadrature components. A processor coupled to the data bus receives the serialized quadrature components and determines an amplitude and a phase for at least one interfering frequency corresponding to interference between the return light and the local oscillator light using the quadrature components.

2. 3-D electrostatic printer using rack and pinion registration system

Date: 2018-06-19 | ID: 10000010

Abstract: 3-D printing system include development stations positioned to electrostatically transfer build and support materials to an intermediate transfer surface, a transfer station adjacent the intermediate transfer surface, guides adjacent the transfer station, and platens moving on the guides. The guides are shaped to direct the platens to repeatedly pass the transfer station and come in contact with the intermediate transfer surface at the transfer station. The intermediate transfer surface transfers a layer of the build and support materials to the platens each time the platens contact the intermediate transfer surface at the transfer station to successively form layers of the build and support materials on the platens. The platens and the intermediate transfer surface include rack and pinion structures that temporarily join at the transfer station, as the platens pass the transfer station, to align the platens with the intermediate transfer surface as the platens contact the intermediate transfer surface.

3. System and method for removing three-dimensional printed parts from a platen using inductive heating and gravity

Date: 2018-06-19 | ID: 10000051

Abstract: A method of manufacturing a three-dimensional object facilitates removal of the three-dimensional object from the platen on which the object was formed. The method includes rotating the platen from a horizontally level position to a position at an angle to the level position to enable gravity to urge the three-dimensional object away from the platen and inductively heating the platen to melt support material at

the boundary of the object and the platen to release the three-dimensional object from the platen.

4. Methods for rejuvenating an imaging member of an ink-based digital printing system

Date: 2018-06-19 | ID: 10000052

Abstract: Disclosed herein are methods for an ink-based digital printing system, comprising providing an imaging member a reimageable surface layer disposed on a structural mounting layer, the reimageable surface layer comprising a fluorosilicone elastomer and an infrared-absorbing filler comprising carbon black, and a plurality of surface defects on the reimageable surface layer, wherein the surface defects comprises carbon black exposed through the fluorosilicone elastomer of the reimageable surface layer. The method also comprises applying a coating of rejuvenating oil comprising an amino-functional organopolysiloxane to the reimageable surface layer, whereby at least a portion of the plurality of surface defects are coated by the amino-functional organopolysiloxane, thereby rejuvenating the imaging member.

5. Sheet-processing machine having a sheet-guiding drum, and method for producing a gripper system

Date: 2018-06-19 | ID: 10000054

Abstract: A sheet-guiding drum in a sheet-processing machine, comprises a gripper system, a gripper shaft, and a gripper tube. A method for producing a gripper system is also disclosed. The sheet-guiding drum further improves the sheet transport process, in particular the turning process, in sheet-processing machines. The problem addressed by the invention is in particular the provision of a low-wear rolling-element bearing that preferably eliminates the aforementioned disadvantages and, in particular, meets all further boundary conditions. This problem is solved in that the gripper tube is assembled from tube segments.

6. Controlling nozzles in a print head

Date: 2018-06-19 | ID: 10000057

Abstract: Certain examples described herein relate to printing systems and methods of operating the same. In an example of a printing system, a nozzle diagnostic mechanism obtains information relating to a condition of a first nozzle set of a print head following a first period of an established printing operation, and a nozzle compensator receives information relating to the condition of the first nozzle set from the nozzle diagnostic mechanism. Based on the received information, the nozzle compensator then causes a second nozzle set of the print head to be operated in place of the first nozzle set of the print head during a second period of the established printing operation. In an example of a method of operating a printing system, status information that relates to a condition of a first nozzle set of a print head is determined during a print production operation. A second nozzle set of the print head is then caused, based on the status information determined,

to be operated in place of the first nozzle set to continue the print production operation.

7. Inkjet printing system having dynamically controlled ink reservoir

Date: 2018-06-19 | ID: 10000065

Abstract: An inkjet printing system includes an ink reservoir defining a longitudinal axis, an ink-receiving chamber and a control chamber. A control fluid source delivers a control fluid across a range of pressure levels to the control chamber, and an orientation sensor determines an orientation of the longitudinal axis of the ink reservoir and generates an orientation signal. A processor is operably coupled to the control fluid source and the orientation sensor, the processor being programmed to infer an angle of the longitudinal axis relative to the vertical reference axis based on the orientation signal from the orientation sensor, determine a desired pressure for the control chamber based, at least in part, on the inferred angle of the longitudinal axis, and control the control fluid source to adjust the actual pressure level in the control chamber to the desired pressure for the control chamber.

8. Drying device and inkjet printer system including drying device

Date: 2018-06-19 | ID: 10000076

Abstract: A drying device includes a drying section to dry a recording medium; a cooling section to cool the recording medium conveyed from the drying section; and a duct to expel air inside the drying section to outside the drying device. The duct includes a joint section where the air from the drying section meets air from the cooling section meet. The air from the drying section containing moisture and solvent medium is cooled in the duct.

9. Piezoelectric based system and method for determining tire load

Date: 2018-06-19 | ID: 10000100

Abstract: Systems and methods of determining tire load from measured tire parameters include using a piezoelectric based sensor to obtain one or more contact patch parameters (e.g., contact patch entry time, contact patch exit time total contact patch time and contact patch angle) and one or more additional sensors to obtain tire pressure. Selected contact patch parameter measurements and pressure values are then compared with known combinations of contact patch parameter values and pressure values stored in a look-up table. A corresponding determined tire load value is then provided as electronic output.

10. Method of controlling a vehicle active suspension system

Date: 2018-06-19 | ID: 10000103

Abstract: A method of controlling a vehicle active suspension system may include, in response to an object

being detected forward of the vehicle and a vehicle speed exceeding a threshold, identifying an object classification associated with the object. The method may further include actuating the active suspension system to induce a vibration signature in the vehicle based on the object classification such that a different identified object classification corresponds to a different vibration signature.

11. Damper with integrated electronics

Date: 2018-06-19 | ID: 10000104

Abstract: The present disclosure relates to a damper system for a vehicle. The damper system may have an electrically adjustable hydraulic shock absorber including a rod guide assembly, a pressure tube, a reserve tube and an electromechanical valve. The electromechanical valve may be disposed in a valve cavity within the shock absorber. An integrated electronic system may be included which has a power drive electronics. The power drive electronics is electrically coupled to the electromechanical valve. The integrated electronic system is disposed along an axis parallel to a longitudinal axis of the pressure tube, and at a location radially outwardly of the pressure tube adjacent the rod guide assembly.

12. Vehicle air conditioning system

Date: 2018-06-19 | ID: 10000109

Abstract: Air conditioning systems and methods for a vehicle having a start-stop engine system. The systems and methods cool the vehicle's passenger cabin when the vehicle's engine and air conditioning compressor are off.

13. Air conditioning system for motor vehicles

Date: 2018-06-19 | ID: 10000110

Abstract: An air conditioning system for motor vehicles includes an air conditioner case having a drainage port, an evaporator installed within the air conditioner case, a drainage hose configured to discharge condensate water generated in the evaporator to the outside of a vehicle room, the drainage hose connected to the drainage port and drawn out to the outside of the vehicle room through a dashboard, and a connector means configured to rotatably connect the drainage hose to the drainage port of the air conditioner case so as to permit rotation of the drainage hose with respect to the drainage port when the drainage hose is twisted in an assembling process of the drainage hose.

14. Vehicle computer system with transparent display

Date: 2018-06-19 | ID: 10000121

Abstract: The invention relates to a vehicle computer system. The vehicle computer system gathers data from

a safety sensor to determine whether the proper safety conditions are present for the vehicle operator to interact with the vehicle computer system. A safety controller receives safety condition data gathered from the safety sensor and instructs the display manager to disable the display of information to the vehicle operator during unsafe operating conditions. The vehicle computer system advantageously employs a transparent display screen to provide greater field of vision of the vehicle operator than could be provided by a traditional display screen.

15. Method for operating parallel auxiliary converters in a rail vehicle

Date: 2018-06-19 | ID: 10000122

Abstract: In a method for supplying an electrical load of a vehicle with electrical energy by auxiliary converters connected in parallel on the alternating-voltage side, a current flow between the auxiliary converters and a grounded N conductor of an energy supply network is interrupted in the presence a ground fault. The auxiliary converters connected in parallel on the alternating-voltage side are operated with fundamental-wave and pulse synchronicity. An energy supply system of a vehicle, in particular of a rail vehicle, performs this method, with the energy supply system including at least two auxiliary converters arranged in parallel, an energy supply network for supplying electrical loads, at least one switch for interrupting a current flow between the auxiliary converters and the energy supply network.

16. Hybrid vehicle

Date: 2018-06-19 | ID: 10000123

Abstract: When such an abnormality that a battery voltage system voltage is brought into an overvoltage state during regenerative control of a motor occurs, a booster converter is shut down, a system main relay is brought into a non-arc state and turned off. Then, an engine is started when an operation of the engine is stopped. The booster converter is used to determine turning-off of the system main relay, and a battery-less travel is started thereafter. In this way, inconvenience that possibly occurs by starting the battery-less travel at a time when abnormality of the system main relay being stuck to be on occurs can be avoided.

17. Parallel charging and power supply system for pure electric vehicle

Date: 2018-06-19 | ID: 10000127

Abstract: A parallel charging and power supply system for a battery electric vehicle comprises a battery unit, a battery management system, a vehicle control unit, a motor controller and a motor, wherein a corresponding signal output end and a signal input end of the battery management system are respectively connected with a corresponding signal input end and a signal output end of the battery unit; the motor controller is respectively connected with a power output end of the battery unit, a power input end of the

motor and a signal output end of the motor; a signal input end of the vehicle control unit is respectively connected with the corresponding signal output ends of the battery management system and the motor controller.

18. Charging management system and method for charger of electric vehicle

Date: 2018-06-19 | ID: 10000130

Abstract: A charging management system (CMS) and a charging management method for a charger of an electric vehicle are provided. The CMS includes a charger grid micro-dispatching system (CGMS) module, a charger battery management system (CBMS) module, a charger vehicle-dispatching management system (CVMS) module, a charger network management system (CNMS) module, and a charger charging management system (CCMS) module. An intelligent safety redundant strategy and a fault recording strategy are introduced, and multiple related parameters of a battery management system (BMS) are built in the CBMS module, so as to realize an intelligent active protection during charging the electric vehicle. Meanwhile, through analyzing the BMS and characteristic data of a power battery, cooperating with the CCMS module, adopting a multi-dimension data analyzing and controlling strategy, and outputting an optimized flexible curve current based on battery charging, life time of the battery is lengthened.

19. Systems for determining relative position and orientation of a vehicle with respect to a charging station

Date: 2018-06-19 | ID: 10000131

Abstract: A guidance system for a motor vehicle comprising: a controller, the controller being operable to determine whether a first length of cable is sufficiently long to allow a charging connection to be established between a motor vehicle and a charging station in dependence on data corresponding to a relative position and orientation of the vehicle with respect to the charging station; and output means for providing an output to a user indicating whether the cable is sufficiently long.

20. Wireless charging system for charging vehicular battery

Date: 2018-06-19 | ID: 10000134

Abstract: A wireless charging system may be used to charge a battery in a vehicle via a receiving coil. The wireless charging system may include a coil charge device, a linear track, a linear motor, and a charge control module. The coil charge device includes a carriage and a transmitting coil positioned on the carriage. The linear track extends across a designated path. The coil charge device is positioned on and moveable along the linear track. The linear motor is operable to move the coil charge device along the linear track. The charge control module controls a position of the coil charge device along the designated path via the linear

motor.

21. Safety system of fuel cell vehicle and control method for the same

Date: 2018-06-19 | ID: 10000139

Abstract: Disclosed are a safety system of a fuel cell vehicle and a control method for the safety system. A safety system of a fuel cell vehicle using a fuel cell and a high voltage battery as a power source may include: a power switch disposed on a power wire connecting the power source and a power load to each other; an insulation resistance measuring device measuring an insulation resistance between the power wire and a chassis; and a controller controlling an operation of the power switch based on a measured insulation resistance measured by the insulation resistance measuring device. When the measured insulation resistance is equal to or less than a reference resistance, the controller enters a safe mode and the power switch is turned off to thereby block power supplied to the power load.

22. Method and system for controlling fuel cell vehicle

Date: 2018-06-19 | ID: 10000141

Abstract: A method and system for controlling a fuel cell vehicle are provided. The method includes determining, by a controller, a driving pattern of a driver based on driving information including acceleration and deceleration information. A condition for activation of an idling-stop of a fuel cell is then set based on the determined driving pattern and the fuel cell is stopped from generating electric energy when the condition for activation of the idling-stop is satisfied.

23. Head and neck restraining system

Date: 2018-06-19 | ID: 10000142

Abstract: In a method of head and neck restraint the head of a subject is secured to a head and neck restraint assembly that limits movement of the head. In response to sudden force in a first direction, whereupon the head of the subject experiences a force in a second direction, the head and neck restraint assembly controls deceleration of the head in the second direction and avoids rebounding of the head after deceleration.

24. Debris catching system for a child seat

Date: 2018-06-19 | ID: 10000143

Abstract: A debris catching system for positioning against a typical child seat used in vehicles uses a pair of panel members, each disposed against one of the sides of the child seat and cinched to the base of the child seat via a pair of strap systems with a third strap system stabilizing the panels against a medial section of a back member of the child seat. Each panel has one or more pockets to catch and hold debris therein with the

panels and their pockets being made from a moisture impervious material. An optional panel can be attached to each of the above panels and slide with respect to such panels so as to be raisable to help block sun and other unwanted light from shining onto the occupant of the child seat.

25. Air bag system for lifting trailer platforms

Date: 2018-06-19 | ID: 10000145

Abstract: The application discloses integrated air suspension and platform lifting systems that utilize an existing air supply for lifting one or more platforms installed in a trailer or hauling vehicle. An apparatus for lifting a rear gate or platform of a trailer or a hauling vehicle is disclosed that includes an actuating mechanism operable to pivot the platform between a lowered position (e.g., where the end of the platform is in contact with the ground) and a range of raised positions (e.g., where the platform is raised to meet an elevated platform such as a loading dock). The lifting mechanisms for raising and lowering the platform(s) may utilize a pressurized gas supply from a compressor. In some embodiments, the lifting mechanism may be supplied with pressurized air from a compressor of a brake system of a tractor. In some embodiments a separate locking mechanism is provided to hold the platform in place after the lifting system has moved it into a desired position.

26. External audio alert system and method for vehicular use

Date: 2018-06-19 | ID: 10000152

Abstract: In embodiments of the present invention, an Alert Controller coupled to an Internal Digital Communication System (IDCS) of a vehicle monitors vehicle states based on messages received over the IDCS and generates audio alerts projected external to the vehicle based on the vehicle states. Multiple vehicle states may be defined, with each vehicle state associated with receipt of one or more types of messages in a particular sequence and/or within a particular timeframe. Different audio alerts may be assigned to different vehicle states. The audio alerts may be customizable such as by the vehicle manufacturer and/or vehicle owner/operator. An alert selection interface may be provided in the vehicle for user-selection of audio alerts.

27. System for object indication on a vehicle display and method thereof

Date: 2018-06-19 | ID: 10000153

Abstract: Presence of an object can be indicated on a display of a vehicle. Multiple indicators can be displayed on the display of the vehicle, where each indicator corresponds to one of multiple portions of a drawing area associated with the display. Presence of the object can be detected within a travel direction of the vehicle. Location information of the object can be associated with one of the multiple portions of the

drawing area. One of the multiple indicators that corresponds to the one of the multiple portions of the drawing area can be highlighted on the display as an alert of the presence of the object.

28. Vehicle camera system having live video indication

Date: 2018-06-19 | ID: 10000154

Abstract: A vehicle display displays a camera video having an indicator. The indicator is static on the display while the camera video is frozen on the display thereby notifying a viewer that the camera video is frozen and the indicator is dynamic on the display while the camera video is live on the display.

29. Storage bin system for a motor vehicle

Date: 2018-06-19 | ID: 10000159

Abstract: A storage bin system is provided for a motor vehicle. That storage bin system includes a first cargo compartment sidewall having a first storage cavity with a first rearwardly oriented access opening. Further, the storage bin system includes a first removable storage bin received and held in the first storage cavity.

30. Vehicle article carrier with integrated camera and solar powered lighting

Date: 2018-06-19 | ID: 10000160

Abstract: A vehicle article carrier system is disclosed for carrying articles above an outer body surface of a vehicle. The system may incorporate at least one support rail secured to the outer body surface. The support rail may have a support foot portion at each of its opposite ends, with each support foot portion secured to the outer body surface of the vehicle. A sensor may be mounted on the at least one support rail or one of the support feet portions for sensing a characteristic within a field of view around the vehicle and providing related information to a subsystem of the vehicle.

31. Vehicle electrical system and method for operating a vehicle electrical system

Date: 2018-06-19 | ID: 10000168

Abstract: A vehicle electrical system includes a first system branch with a first nominal voltage U1, a second system branch with a second nominal voltage U2, at least one DC/DC converter configured to transmit energy between the first and second system branches, a first actuating unit to actuate the DC/DC converter(s), a first detection unit to detect an instantaneous voltage Uact,1 of the first system branch, and a comparison unit to compare the detected instantaneous voltage Uact,1 to a first upper voltage threshold value Uo,1 and to a first lower voltage threshold value Uu,1, wherein Uu,1<U1<Uo,1. The first actuating unit actuates the DC/DC converter(s) such that energy is transmitted from the first system branch to the second system branch if Uact,1>Uo,1, and such that energy is transmitted from the second system branch to the first

system branch if Uact,1<Uu,1.

32. Pressure unit and end fitting having a pressure unit of this type

Date: 2018-06-19 | ID: 10000185

Abstract: The invention relates to a pressure unit (64) for pressurizing a belt shaft (12) in a seat belt system comprising a screw (66) for fastening the pressure unit (64) to a frame (18) of the seat belt system, the screw (66) including a screw head (68) and a screw shank (70), wherein the pressure unit (64) comprises a fastening portion (72) having a screw hole (74) for inserting the screw shank (70), wherein radial play is provided between the screw hole (74) and the screw shank (70) and the fastening portion (72) on the screw head side includes mounting arms (76) for axially fixing the screw (66) in a pre-assembly position. Moreover, the invention also comprises an end fitting (11) of a seat belt system comprising such pressure unit (64).

33. Belt assembly including plus-two-point belt reminder

Date: 2018-06-19 | ID: 10000186

Abstract: A plus-two-point belt system is disclosed. The plus-two-point belt system includes a longitudinal webbing anchored at a first end to a seat and fixed at a second end to a retractor. The webbing is extendable from the retractor to allow an occupant to slip their arm under the webbing to provide a supplemental restraint. The webbing includes first and second portions where the second portion is retractably coiled on the retractor and the second portion has at least one conductive marker. A sensor is provided to sense the marker and a processor is provided to set an alarm when the marker is not detected.

34. Vehicle communication system, in-vehicle device, portable device, and computer program

Date: 2018-06-19 | ID: 10000187

Abstract: In the vehicle communication system provided with the in-vehicle device for transmitting and receiving signals using the plurality of antennas, which are provided in different positions in the vehicle, and the portable device for transmitting and receiving the signals, the in-vehicle device: stores statistical values derived by measuring in advance received signal strengths of signals transmitted from a part of the plurality of antennas in association with information identifying antennas of transmission sources, for each of the inside and the outside of a vehicle cabin of measured positions; detects an antenna having a failure; calculates, for inside and outside the vehicle cabin, the statistical distance between the measured received signal strength and the statistical values corresponding to the selected antennas; makes a comparison between the results of the calculation; and determines whether the portable device is inside or outside the vehicle cabin.

35. Hydraulic jack retrofit for trailer

Date: 2018-06-19 | ID: 10000189

Abstract: A system for retrofitting a trailer having a crank jack with a jack housing and a drop leg includes a hydraulic cylinder including a main cylinder and a ram piston extending outwardly therefrom as the main cylinder is filled with pressurized fluid, a first mounting ear on the hydraulic cylinder and a second mounting ear on the hydraulic cylinder, the first mounting ear opposite the second mounting ear, a cylinder port positioned orthogonally to the first mounting ear and the second mounting ear and positioned between the first mounting ear and the second mounting ear, and a conversion foot sized and shaped to fit within the jack housing and adapted to support the hydraulic cylinder.

36. Brake system and method for controlling a brake system

Date: 2018-06-19 | ID: 10000191

Abstract: A brake system for a vehicle having a master brake cylinder, which provides a pressure signal, having a brake-medium reservoir connected to the master brake cylinder, and a first brake circuit, which is coupled by a first input to the master brake cylinder and by a second input to the brake-medium reservoir, and having at least one first wheel-brake cylinder, which is mounted at a first wheel, in order to exert a force corresponding to the pressure signal onto the first wheel, and having a separator valve, which is configured between the first input and the first wheel-brake cylinder, to prevent further transmission of the pressure signal upon receipt of a supplied closing signal; and having a control valve, which is configured between the first input and the first wheel-brake cylinder; in order to control an inflow of a brake medium from brake-medium reservoir to the first wheel-brake cylinder. In addition, a method for controlling a corresponding brake system is also described.

37. Method, controller and system for monitoring brake operation

Date: 2018-06-19 | ID: 10000194

Abstract: Various embodiments of an apparatus and method for monitoring a brake operation are disclosed. In accordance with one aspect, the brake operation monitoring system comprises a plurality of wheel speed sensors, a brake demand sensor; a plurality of stability sensors and a controller. The controller comprises wheel speed ports; a brake demand port; stability sensor ports; a communication port for receiving a plurality of messages; and a processing unit comprising control logic. The control logic receives a brake demand signal, at least one stability signal indicative of the cornering of the vehicle, and individual wheel speeds. The control logic calculates a master value to compare to individual wheel speed signals if the brake demand signal indicates no braking.

38. Apparatus and method for controlling torque reduction of hybrid electric vehicle

Date: 2018-06-19 | ID: 10000196

Abstract: A method for controlling torque reduction of a hybrid electric vehicle including a motor and an engine as a power source includes: determining whether a traction control system (TCS) is operating; calculating a demand torque of the TCS when the TCS is operating; determining an engine operating point according to the demand torque of the TCS; maintaining an engine torque according to the engine operating point; comparing a difference between the demand torque of the TCS and the engine torque according to the engine operating point with a charging limit torque of the motor; and performing torque reduction using a motor torque and the engine torque based on a result of the comparison.

39. Mild hybrid powertrain controls

Date: 2018-06-19 | ID: 10000197

Abstract: Mild hybrid powertrain controls and apparatuses, methods and systems including the same are disclosed. One exemplary embodiment is a mild-hybrid system comprising an engine, an electrical machine, power electronics, an energy storage system, and an electrical load. The system includes a controller structured to receive an electrical machine power command based upon a power allocation to the electrical machine, process the electrical machine power command with feedforward controls structured to compensate for an inaccuracy associated with the power electronics, process the electrical machine power command with proportional integral (PI) controls structured to compensate for a power loss associated with one or more electrical loads, provide a compensated machine power command based upon the processing with the feedforward controls and the processing with the PI controls, and output the compensated machine power command to control the electrical machine.

40. Control system and control method

Date: 2018-06-19 | ID: 10000198

Abstract: In a control system and a control method, an electronic control unit is configured to crank an engine by setting a clutch to a half engaged state in a state where operation of the engine is stopped during traveling. The half engaged state is a state where the clutch is engaged with a slip. The electronic control unit is configured to, after a rotation speed of the engine has reached an ignition permission rotation speed or higher, increase a transmitted torque capacity of the clutch to a transmitted torque capacity that satisfies the following conditions i) and ii): i) the transmitted torque capacity is larger than a transmitted torque capacity before the rotation speed of the engine has reached the ignition permission rotation speed; and ii) the transmitted torque capacity allows the clutch to be kept in the half engaged state.

41. Torque reserve in a hybrid system

Date: 2018-06-19 | ID: 10000200

Abstract: Devices, methods, and systems including a controller for a hybrid system. The controller includes an electronic processor configured to receive inputs defining a current condition of the hybrid system. The inputs include an acceleration input and an engine speed input. The electronic processor is configured to determine a desired torque based at least in part on the acceleration input, determine an actual torque based at least in part on the engine speed input, and set a torque strategy to operate an internal combustion engine at a high efficiency level when the desired torque is different than the actual torque.

42. Control apparatus for power transmission system

Date: 2018-06-19 | ID: 10000206

Abstract: When an electrical continuously variable transmission malfunctions and the operation of an engine is stopped, an automatic transmission is caused to upshift. Therefore, when the rotation of the engine is stopped as a result of a stop of the operation, an AT input rotation speed is decreased as compared to that before it is determined that there is a malfunction in the electrical continuously variable transmission. Thus, an MG1 rotation speed is decreased in absolute value as compared to when the automatic transmission is not caused to upshift, so an overspeed of a first electric motor is prevented.

43. Vehicle hitch detection system and method

Date: 2018-06-19 | ID: 10000207

Abstract: A vehicle hitch detection system is provided. The vehicle hitch detection system includes a camera arranged to capture images of a vehicle hitch and a controller processing the images to detect a powered hitch ornament connected to the hitch based on the processed images when an electrical hitch connection is detected. The controller may further control a driver assistance system based on the detected hitch ornament to enable or disable the system.

44. Vehicle controls including dynamic vehicle parameter determination

Date: 2018-06-19 | ID: 10000214

Abstract: Apparatuses, methods, systems and controls including dynamic vehicle parameter determination are disclosed. One embodiment is a method of operating a vehicle system including a powertrain comprising a prime mover structured to propel the vehicle, and an electronic control system in operative communication with the prime mover and the transmission. The method includes estimating a plurality of coefficients of a vehicle loss model, evaluating a convergence criterion for the plurality of estimated coefficients, setting converged values of the plurality of coefficients if the convergence criterion is satisfied, determining a vehicle

powertrain command utilizing the converged values of the plurality of coefficients, and transmitting a vehicle powertrain command to control operation of one or more powertrain components.

45. Engaging and disengaging for autonomous driving

Date: 2018-06-19 | ID: 10000216

Abstract: Aspects of the present disclosure relate switching between autonomous and manual driving modes. In order to do so, the vehicle's computer may conduct a series of environmental, system, and driver checks to identify certain conditions. The computer may correct some of these conditions and also provide a driver with a checklist of tasks for completion. Once the tasks have been completed and the conditions are changed, the computer may allow the driver to switch from the manual to the autonomous driving mode. The computer may also make a determination, under certain conditions, that it would be detrimental to the driver's safety or comfort to make a switch from the autonomous driving mode to the manual driving mode.

46. Bi-modal traffic system

Date: 2018-06-19 | ID: 10000218

Abstract: Bi-modal traffic system including an integrated path network for bi-modal vehicles, especially for bi-modal trucks, wherein the bi-modal vehicles are configured so that they run both on rail tracks as well as on road tracks. The integrated path network includes at least one rail network and one road network, wherein the at least one rail network and the at least one road network are coupled by at least one junction. The at least one junction is configured so that bi-modal vehicles may change from rail network to a road network and may adapt their speed so that a change of a bi-modal vehicle from the rail network into the road network does not impair the ongoing traffic on the road network, and/or is configured so that bi-modal vehicles may change from a road network to a rail network and may adapt their speed so that a change of a bi-modal vehicle from the road network into the rail network does not impair the ongoing traffic on the rail network.

47. Device for applying an auxiliary force in a motor vehicle steering system

Date: 2018-06-19 | ID: 10000231

Abstract: An apparatus for applying an auxiliary force in a motor vehicle steering unit may include a driving worm that is connectable to an electric motor and applies an auxiliary force on the motor vehicle steering unit through a worm wheel. The driving worm may be housed in a roller bearing. The roller bearing can be pivoted about a pivoting axis defined by a pivot element outside the roller bearing.

48. Method of controlling an inverter during MOSFET shorts

Date: 2018-06-19 | ID: 10000233

Abstract: Technical solutions are described for mitigating braking torque in a motor of a steering system caused by a FET short. For example, an example mitigation system includes a mitigation module that adjusts a motor torque in response to a FET short. The mitigation system further includes a mitigation-enable module that selectively enables and disables the mitigation module based on a handwheel torque signal. Further, the mitigation system includes a damping module that reduces the motor torque based on a motor velocity signal for the motor.

49. Steering control apparatus and method of steer-by-wire system

Date: 2018-06-19 | ID: 10000234

Abstract: A steering control apparatus of an SBW system may include: a power motor configured to output a steering force in the SBW system; a power motor position sensor configured to sense an angular position of the power motor; a steering angle sensor configured to sense a steering angle of a steering wheel; a vehicle velocity sensor configured to sense a vehicle velocity; and a power motor control unit configured to calculate a target steering angle from the steering angle, and drive the power motor according to the target steering angle. The power motor control unit may calculate a feedback steering angle reflecting an output angle of a wheel, calculate a compensation steering angle for variably controlling the output angle of the wheel based on the feedback steering angle and the vehicle velocity, and corrects the target steering angle using the compensation steering angle.

50. Driving support device for vehicle steering systems in lane assist and collision avoidance modes

Date: 2018-06-19 | ID: 10000237

Abstract: In a driving support device for a vehicle including a collision avoidance support system and a lane travel support system, a steering control amount is set while maintaining an appropriate relationship between both of the systems. This is by setting a lower upper limit value for the steering torque command during collision avoidance as compared to lane travel support. However, a gradient (i.e., rate of change) of the collision avoidance is set to be greater than a gradient of the lane travel support. As a result, the driving support device balances collision avoidance and lane travel support to have quick response during collision avoidance, and maintaining the ability to adapt to wide changes in road condition during lane travel support.

51. Modular system

Date: 2018-06-19 | ID: 10000238

Abstract: A modular system in the form of a load-bearing frame to be arranged in a tail region of a motor vehicle. The modular components which are to be linked or are linked include at least one cast structure and

at least two profiles, the cast structure comprising at least one node.

52. Rotatable robot foot with perpendicular soles

Date: 2018-06-19 | ID: 10000248

Abstract: Example embodiments relate to a robotic device with at least two legs. Each leg includes a foot including a first sole and a second sole perpendicular to the first sole. Each leg additionally includes an ankle joint configured to rotate the foot from a first position in which the first sole is contacting a ground surface to a second position in which the second sole is contacting the ground surface. The robotic device includes a control system. When the foot of a given leg of the at least two legs is in the first position, the control system may determine to cause the foot of the given leg to switch from the first position to the second position, and may cause the ankle joint of the given leg to rotate the foot of the given leg from the first position to the second position.

53. Systems and methods for pressure tolerant energy systems

Date: 2018-06-19 | ID: 10000260

Abstract: Systems and methods are disclosed herein for a pressure tolerant energy system. The pressure tolerant energy system may comprise a pressure tolerant cavity and an energy system enclosed in the pressure tolerant cavity configured to provide electrical power to the vehicle. The energy system may include one or more battery cells and a pressure tolerant, programmable management circuit. The pressure tolerant cavity may be filled with an electrically-inert liquid, such as mineral oil. In some embodiments, the electrically-inert liquid may be kept at a positive pressure relative to a pressure external to the pressure tolerant cavity. The energy system may further comprise a pressure venting system configured to maintain the pressure inside the pressure tolerant cavity within a range of pressures. The pressure tolerant cavity may be sealed to prevent water ingress.

54. System, method, and apparatus for stabilizing a boat

Date: 2018-06-19 | ID: 10000261

Abstract: A stabilizer that extends from the hull of a watercraft below the waterline when needed is disclosed. The stabilizer produces added drag on the watercraft's counteracting a tendency to change bearing. Stabilization chambers of the stabilizer hold semi contained water to produce an extended drag effect by adding lateral weight due to the water that is semi contained within the chamber during use. The restricted flow of water into and out of the stabilizer and the outer dimensions of the stabilizer provides lateral drag to mute any ambient drift.

55. Underwater system and method

Date: 2018-06-19 | ID: 10000263

Abstract: Systems and methods are provided for underwater use. In one example the system includes an autonomous mother unmanned underwater vehicle (AMUV) and one or more auxiliary unmanned underwater vehicles (UUV). The AMUV is configured for autonomously searching for and detecting undersea objects potentially present in an undersea region of interest (ROI), for generating object information relating to the objects detected thereby to enable identification of at least one object of interest (OOI) among the detected objects, and for selectively transporting the UUV to at least within a predetermined distance from a location of the OOI. The UUV is configured for interacting with the OOI at least within the predetermined distance. Such a system is further configured for providing verification information indicative of the interaction between the UUV and the OOI. The AMUV includes a communications system at least configured for transmitting at one or both of the verification information and the object information.

56. Controlling buoyancy of an underwater vehicle using a dual-internal-reservoir configuration to enhance efficiency of inflating and deflating an external chamber

Date: 2018-06-19 | ID: 10000265

Abstract: An underwater vehicle may include a buoyancy control system configured to use a dual-internal-reservoir configuration to enhance efficiency of changing buoyancy of the underwater vehicle. The buoyancy control system may utilize an incompressible fluid (e.g., oil or water) that is transferred between a first internal reservoir and an external chamber to affect buoyancy of the underwater vehicle. In exemplary implementations, a compressible fluid (e.g., air) may be used to inflate or deflate a second internal reservoir. The second internal reservoir may be disposed within the buoyancy control system so that it can act on the first internal reservoir by applying a compressive force or a tensive force on the first internal reservoir, depending on the pressure differences between the two reservoirs.

57. Column based electric assist marine power steering

Date: 2018-06-19 | ID: 10000269

Abstract: An embodiment of a system for controlling a marine vessel includes an electrical power steering unit coupled to a mechanical control system, the mechanical control system including a steering wheel connected by a shaft to a mechanical cable assembly, the mechanical cable assembly configured to be actuated by the steering wheel to control a steering mechanism of the marine vessel. The electrical power steering unit includes an electric motor configured to apply a torque to the mechanical cable assembly. The system also includes a processor configured to control the electrical power steering unit to provide at least

one of steering assist and control of the marine vessel.

58. Thermal acoustic insulation blankets

Date: 2018-06-19 | ID: 10000272

Abstract: The present invention pertains to an insulation system comprising one or more insulation blankets, wherein each of said multilayer insulation blankets comprises: a core consisting of an insulation material [material (I)], and a shell encapsulating said core, said shell comprising at least one multilayer assembly comprising: (1) an outer layer [layer (L1)] consisting of a composition [composition (C1)] comprising, preferably consisting of, at least one thermoplastic polymer [polymer (1)] having a limiting oxygen index (LOI) of at least 20% by volume, wherein at least one surface, preferably the inner surface, of said layer (L1) comprises one or more grafted functional groups [surface (L1-f)], (2) directly adhered to said at least one surface (L1-f), a layer consisting of at least one metal compound (M1) [layer (L2)], and (3) optionally, directly adhered to the opposite side of the layer (L2), a layer consisting of at least one metal compound (M2) [layer (L3)], said metal compound (M2) being equal to or different from said metal compound (M1). The present invention also pertains to a process for the manufacture of said insulation system and to uses of said insulation system in various applications including aircraft applications.

59. Aircraft hybrid flight control system

Date: 2018-06-19 | ID: 10000275

Abstract: An aircraft hybrid flight control system comprising a manual control element, a mechanical transmission interposed between the manual control element and a control surface, an electromechanical actuator and a coupling unit configured to connect selectively the control surface to the mechanical transmission in a manual control mode and to the electromechanical actuator in a fly-by-wire control mode; the coupling unit is configured to maintain the mechanical transmission in a condition of substantial continuity with said control surface even in fly-by-wire mode, but for a freedom of relative motion of pre-set amplitude.

60. Control method for controlling a buoyancy system for an aircraft, a buoyancy system, and an aircraft

Date: 2018-06-19 | ID: 10000281

Abstract: The present invention relates to a control method for inflating at least one float of a buoyancy system. During a mode (MOD1) of automatic inflation in flight, calculation means determine whether a predetermined ditching condition is true during a step (STP1) of predicting a forthcoming impact. During a step (STP2) of characterizing said impact, at least one predicted component of a ditching speed is determined. During an automatic inflation step (STP3), each float is automatically inflated in flight when at

least said ditching condition is true and when each determined predicted component is less than a corresponding speed threshold.

61. Collaborative unmanned aerial vehicle for an inventory system

Date: 2018-06-19 | ID: 10000284

Abstract: The disclosed unmanned aerial vehicle (UAV) includes a buoyant airbag, a drive unit, a retention feature, and an onboard control module that can be configured to cause the drive unit to displace the UAV, cause the retention feature to retain one or more items for transport, and receive instructions to transfer items from one location to another. For example, a UAV can be controlled to obtain an item at one location in a warehouse such as a first floor, lift said item to a second location in the warehouse such as a second floor, and deposit the item at the second location.

62. Methods and systems for detecting and resolving failure events when raising and lowering a payload

Date: 2018-06-19 | ID: 10000285

Abstract: Described herein are methods and systems for detecting and correcting errors when picking up and lowering a payload coupled to a tether of a winch system arranged on an unmanned aerial vehicle (UAV). For example, the winch system may include a motor for winding and unwinding the tether from a spool, and the UAV's control system may control the motor to lower the tether and monitor an electric current supplied to the motor to determine whether a payload has detached from the tether. This process of lowering the tether and monitoring the motor current may be repeated up to a predetermined number of times, at which point the control system may operate the motor to detach the tether from the spool, leaving both the tether and the payload behind.

63. Drop down overhead galley stowage system

Date: 2018-06-19 | ID: 10000287

Abstract: An aircraft overhead stowage system for a cross-aisle galley complex. The aircraft overhead stowage system includes a stowage compartment housing disposed above a ceiling of the galley complex that is supported above the ceiling by a stowage support structure. A first stowage compartment and a second stowage compartment are each movably engaged with and disposed inside the stowage compartment housing, and each stowage compartment is movable between a stowed position and a deployed position relative to the stowage compartment housing using a vacuum system. A vacuum generator that creates a vacuum force is mounted on the stowage compartment housing, and a plurality of vacuum bellows connected to each stowage compartment are in fluid communication with the vacuum generator. The

vacuum system causes the stowage compartments to move between the stowed position and the deployed position. Vacuum-driven and manually-driven latching assemblies and removable extensions for each stowage compartment are also provided.

64. Multipurpose lane divider for evacuation slide

Date: 2018-06-19 | ID: 10000292

Abstract: An evacuation system may comprise an evacuation slide and a lane divider. A portion of the lane divider may be detachably coupled to a sliding surface of the evacuation slide. A detachable restraint may be disposed between the lane divider and the evacuation slide. The detachable restrain may comprise a first portion coupled to the lane divider and a second portion coupled to the sliding surface. The first portion of the detachable restraint may detachably couple to the second portion of the detachable restraint.

65. Gas-electric propulsion system for an aircraft

Date: 2018-06-19 | ID: 10000293

Abstract: In one aspect the present subject matter is directed to a gas-electric propulsion system for an aircraft. The system may include a turbofan jet engine, an electric powered boundary layer ingestion fan that is coupled to a fuselage portion of the aircraft aft of the turbofan jet engine, and an electric generator that is electronically coupled to the turbofan jet engine and to the boundary layer ingestion fan. The electric generator converts rotational energy from the turbofan jet engine to electrical energy and provides at least a portion of the electrical energy to the boundary layer ingestion fan. In another aspect of the present subject matter, a method for propelling an aircraft via the gas-electric propulsion system is disclosed.

66. Aircraft fuel tank flammability reduction method and system

Date: 2018-06-19 | ID: 10000294

Abstract: An aircraft fuel tank flammability reduction method includes feeding pressurized air into an air separation module containing a carbon membrane, the air feed exhibiting a normal pressure of no more than 55 psig. The method includes producing nitrogen-enriched air from the air separation module as a result of removing oxygen from the air feed. An aircraft fuel tank flammability reduction system includes a source for pressurized air, an air separation module configured to receive air feed from the pressurized air source, and a carbon membrane. The carbon membrane is configured to permeate oxygen from the air feed through the carbon membrane at a temperature of at least 120° C. (248° F.) and to produce nitrogen-enriched air from the air separation module as a result of removing oxygen from the air feed.

67. Electrical control system

Date: 2018-06-19 | ID: 10000296

Abstract: An example aircraft electrical system includes a generator coupled with a gas turbine engine and a controller operable to distribute power of the generator. The controller includes a first control module positioned at a first location remote from the generator and a second control module positioned at a second location proximate the generator. The first control module is configured to verify at least one output of the generator, detect a fault condition of the generator, and control operation of at least one power bus in communication with the first control module. The second control module is configured to regulate the at least one output of the generator, where the at least one output includes a voltage. An example method of operating an electrical system is also disclosed.

68. Aircraft display systems and methods for generating horizontal situation indicator graphics with enhanced symbology

Date: 2018-06-19 | ID: 10000297

Abstract: Aircraft display systems for deployment onboard rotorcraft or other aircraft are provided, as are methods carried-out by an aircraft display system. In an embodiment, the aircraft display system includes a controller operably coupled to at least one cockpit display device. The controller is configured to generate a Primary Flight Display (PFD) and Horizontal Situation Indicator (HSI) graphics on the cockpit display device. The controller selectively switches PFD operation between a heading-centered display mode and at least a first non-heading-centered display mode. The HSI graphics are produced to include one or more movable HSI symbols identifying a current aircraft heading when the PFD operates in the first non-heading-centered display mode. In certain embodiments, the controller may also selectively generate visual alerts on the PFD by altering the appearance of the HSI graphics when an angle between the current track and the current heading of the aircraft exceeds an angular threshold.

69. Metrology system for positioning assemblies

Date: 2018-06-19 | ID: 10000298

Abstract: A method and apparatus for maintaining a selected configuration for a structure during a manufacturing process for forming a product using the structure. Metrology data for a support system is received. The support system holds the structure during the manufacturing process. A determination is made as to whether a current configuration of the structure is within selected tolerances of the selected configuration for the structure based on the metrology data. The support system is reconfigured to move the structure into the selected configuration in response to a determination that the current configuration of the structure is not within the selected tolerances of the selected configuration for the structure.

70. Method of forming a stack of cosmetic pads

Date: 2018-06-19 | ID: 10000302

Abstract: A system and method of forming a stack of pads, wherein each of the pads is rotationally askew with respect to its immediate neighbors in the stack. A cutting wheel is provided with cutting forms. The cutting forms are rotated by an offset angle, relative each adjacent cutting form. The cutting wheel is run over material to cut pads. Each of the pads sequentially cut is rotationally offset by the same offset angle as are the cutting forms. As the pads are cut, the pads are sequentially placed into a vertical stack. Each of the pads in the vertical stack is offset from immediately adjacent pads by the offset angle. The pads are formed into shapes that are mostly circular but have recessed areas that create salient points on the pads. The offset angles of each of the pads enables these salient points to be readily grasped.

71. Transporter device and method for conveying objects to be labeled or stamped

Date: 2018-06-19 | ID: 10000307

Abstract: System including a stamping device configured to apply stamps to first and second products having target surfaces. The stamping device applies the stamps when the target surfaces are moved into a stamp-application region. The system also includes a first transporter device having a receiving side. The first transporter device is configured to hold the first products such that the target surfaces of the first products are exposed along the receiving side. The system also includes a second transporter device having a receiving side. The second transporter device is configured to hold the second products such that the target surfaces of the second products are exposed along the receiving side of the second transporter device. The first and second transporter devices are configured to hold the respective first and second products such that the target surfaces of the first and second products face in a generally common direction.

72. Tray system for display, storage and transportation of bottles

Date: 2018-06-19 | ID: 10000321

Abstract: A tray system includes a first tray having a plurality of stacking units. In one embodiment, each stacking unit forms a lower receptacle for receiving a neck portion of a first bottle, and an upper receptacle for receiving a base portion of a second bottle to be stacked above the first bottle. The lower receptacle has a first end, a second end opposite the first end, and a sidewall connecting the first end with the second end. The first end forms an opening for receiving a neck of a second bottle into the lower receptacle. The tray system may also include a second tray and a pallet.

73. Apparatus for retrieving units from a storage system

Date: 2018-06-19 | ID: 10000337

Abstract: A storage system and a load handling device for lifting and moving containers stacked in the storage system are described. The storage system includes a plurality of rails or tracks arranged in a grid pattern above the stacks of containers. The grid pattern can include a plurality of grid spaces and each stack is located within a footprint of only a single grid space. The load handling device is configured to move laterally on the rails or tracks above the stacks. The load-handling device includes a container-receiving space located above the rails or tracks in use and a lifting device arranged to lift a container from a stack into the container-receiving space. The load handling device has a footprint that, in use, occupies only a single grid space in the storage system.

74. Automated system for transporting payloads

Date: 2018-06-19 | ID: 10000338

Abstract: An automated warehouse storage system including a multilevel storage array is provided. Each aisle has a set of storage levels and each level has storage locations distributed along the aisle. The guideway network extending through the multilevel storage array is configured for autonomous vehicles to move along the guideway network within the multilevel storage array. The guideway network including an inter-aisle guideway spanning at least two of the multiple aisles and a set of guideway levels extending in an aisle of the multiple aisles and disposed so that each guideway level is at a different one of the storage levels and the vehicles on the guideway level can access the storage locations distributed along the aisle. Each set of guideway levels is connected to the inter-aisle guideway forming a common guideway path so that a vehicle can move between inter-aisle guideway and each guideway level along the common guideway path.

75. Gravity-fed housing for gasification system

Date: 2018-06-19 | ID: 10000339

Abstract: A gravity-fed housing for use in a gasification system is disclosed. The gravity-fed housing has a receiving end panel that forms a receive opening in a first plane. The receive opening is configured to receive a first plurality of heat carriers via gravity. The gravity-fed housing includes a siding connected to the receiving end panel. The siding forms a chamber and a discharge opening in a second plane that is parallel to the first plane. The discharge opening is offset with respect to the receive opening such that a line perpendicular to the receiving end panel that extends through a center point of the receive opening does not intersect a center point of the second opening. The siding includes a first panel that comprises a guiding surface that intersects the line and is angled toward the discharge opening.

76. Vented bucket

Date: 2018-06-19 | ID: 10000340

Abstract: A vented bucket for use in an endless conveyor system, such as the conveyor belt of a grain elevator or feed elevator, includes two oppositely disposed side panels joined by a rear panel, a bottom panel, and a front panel. At least one vent tube extends along or within one of the rear panel, side panels or front panel in a substantially vertical orientation.

77. Conveyor system and method

Date: 2018-06-19 | ID: 10000341

Abstract: A conveyor system comprising a synchronization unit having a first conveyor belt, a second conveyor belt disposed adjacent to the first conveyor belt, an inlet end and an outlet end. The system further comprises a joint shuttle disposed between the first conveyor belt and the second conveyor belt, each of the first and second conveyor belts having a variable length while the distance between the inlet end and the outlet end is fixed. A discharge conveyor belt is disposed upstream the inlet end and is operating at a first velocity (VD). At a time T1, the velocity of the first conveyor belt (V1T1) is equal to the velocity of the discharge conveyor belt (VD) and, at a time T2, the velocity of the first conveyor belt (V1T2) is equal to the velocity of the second conveyor belt (Vm), without relative movement between the conveyor belts and objects conveyed thereon.

78. Transporting element for a distributing conveyor of a sorter of a sorting installation

Date: 2018-06-19 | ID: 10000346

Abstract: A transport element for a distributing conveyor of a sorter of a sorting installation of a sorting system for sorting articles includes at least one first transport surface, which can be pivoted on both sides about an axis (tilting axis) in a transport direction of the transport element and is intended for accommodating at least one article which is to be sorted, and at least one second transport surface, which is inclined about an axis (axis of inclination) in the transport direction of the transport element and is intended for accommodating at least one article which is to be sorted. The at least one first transport surface, which can be pivoted on either side, is disposed above the at least one second, inclined transport surface. A distributing conveyor having a plurality of transport elements is also provided.

79. Passive tensioning system for composite material payout control

Date: 2018-06-19 | ID: 10000357

Abstract: A passive tensioning system is disclosed for composite material that is dispensed by a composite placement machine. A spool is mounted on a spool shaft and material on the spool is pulled from the spool and applied to a surface. The tensioning system has a drag brake on the spool shaft and a drag brake control for the drag brake. A dancer roll is mounted on a linear slide having a spring force and a slide control is

provided for the linear slide. A control system continually varies the drag brake control and the slide control to control the tension of the composite material based on the instantaneous operating characteristics of the composite placement machine.

80. Rapid deployment frac water transfer system

Date: 2018-06-19 | ID: 10000358

Abstract: A method of and apparatus for the rapid deployment of a fracturing water transferring system, along with the rapid picking up and storage of such system after use. In different embodiments the method in includes the use of a tensioning system to retrieve one or more segments of lay flat hose.

81. Method for operating a lift system

Date: 2018-06-19 | ID: 10000367

Abstract: The invention relates to a method for operating a lift system (19, 20, 21) that has at least two single-post lifts (11, 22-28), each of which comprises a control unit and a load receiving means (15), each control unit having a transmitter and a receiver. The method has the following steps: selecting a specified number of single-post lifts (11, 22-28) in order to form the lift system (19, 20, 21), starting up the single-post lifts (11, 22-28), and configuring the single-post lifts (11, 22-28) so as to form the lift system (19, 20, 21) by establishing a radio connection between the control units of the single-post lifts (11, 22-28) on a radio channel. The lift system (19, 20, 21) is set to a standby mode (29) after the single-post lifts (11, 22-28) are configured or after an actuation process is completed in order to raise or lower the load receiving means (15) of the single-post lifts (11, 22-28), wherein the receiver of each control unit is activated and the transmitter of each control unit is deactivated in the standby mode.

82. Hoist system for retrofitting small scissor lift to access enclosed areas in building structure

Date: 2018-06-19 | ID: 10000368

Abstract: A portable hoist assembly is mounted on a scissor lift. The hoist includes an elongate cable wound on a shaft. The cable has proximate and distal ends. A pulley is mounted on the cable intermediate the proximate and distal ends. In use, the pulley is secured to the ceiling of a building structure.

83. Nano-electromechanical system (NEMS) device structure and method for forming the same

Date: 2018-06-19 | ID: 10000373

Abstract: A NEMS device structure and a method for forming the same are provided. The NEMS device structure includes a substrate and an interconnect structure formed over the substrate. The NEMS device structure includes a dielectric layer formed over the interconnect structure and a beam structure formed in and over the dielectric layer. The beam structure includes a fixed portion and a moveable portion, the fixed portion is extended vertically, and the movable portion is extended horizontally. The NEMS device structure includes a cap structure formed over the dielectric layer and the beam structure and a cavity formed between the beam structure and the cap structure.

84. Systems and methods for growing a non-phase separated group-III nitride semiconductor alloy

Date: 2018-06-19 | ID: 10000381

Abstract: Systems and methods for MBE growing of group-III Nitride alloys, comprising establishing an average reaction temperature range from about 250 C to about 850 C; introducing a nitrogen flux at a nitrogen flow rate; introducing a first metal flux at a first metal flow rate; and periodically stopping and restarting the first metal flux according to a first flow duty cycle. According to another embodiment, the system comprises a nitrogen source that provides nitrogen at a nitrogen flow rate, and, a first metal source comprising a first metal effusion cell that provides a first metal at a first metal flow rate, and a first metal shutter that periodically opens and closes according to a first flow duty cycle to abate and recommence the flow of the first metal from the first metal source. Produced alloys include AlN, InN, GaN, InGaN, and AlInGaN.

85. Post-treatment of a zeolitic material

Date: 2018-06-19 | ID: 10000387

Abstract: A process for the post-treatment of a zeolitic material, the process comprising (i) providing a zeolitic material, wherein the framework structure of the zeolitic material comprises YO2 and X2O3, wherein Y is a tetravalent element and X is a trivalent element; (ii) subjecting the zeolitic material provided in (i) to a method comprising (a) treating the zeolitic material with an aqueous solution having a pH of at most 5, (b) treating the zeolitic material obtained from (a) with a liquid aqueous system having a pH in the range of 5.5 to 8 and a temperature of at least 75° C.; wherein in (ii) and after (b), the zeolitic material is optionally subjected to at least one further treatment according to (a) and/or at least one further treatment according to (b).

86. System and method for controlling frothing during atmospheric leaching of metal sulphides using silicates

Date: 2018-06-19 | ID: 10000389

Abstract: A method of controlling frothing during atmospheric or substantially atmospheric leaching of a metal sulfide is disclosed. In some embodiments, the method may comprise the steps of (a) producing a metal sulfide concentrate via flotation; (b) producing a tailings stream via flotation; and, (c) diverting a portion or all of said produced tailings stream to an atmospheric or substantially atmospheric sulfide leach circuit. A metal recovery flowsheet is also disclosed. In some embodiments, the metal recovery flowsheet may comprise a unit operation comprising: (a) a sulfide concentrator comprising a flotation circuit, the flotation circuit producing a metal sulfide concentrate stream, and a tailings stream; and, (b) an atmospheric or substantially atmospheric metal sulfide leach circuit. The sulfide concentrator may be operatively connected to the atmospheric or substantially atmospheric metal sulfide leach circuit via both of said metal sulfide concentrate stream, and said tailings stream.

87. Compositions for removing hydrocarbons and halogenated hydrocarbons from contaminated environments

Date: 2018-06-19 | ID: 10000394

Abstract: A composition for in situ remediation of soil and groundwater contaminated with hydrocarbons. The composition includes an adsorbent, such as activated carbon, capable of adsorbing the hydrocarbons. The composition also includes a sulfate-containing compound that releases sulfate over a period of time, e.g., a time-release compound that may include calcium sulfate. The composition includes a nutrient system for promoting growth of facultative anaerobes, in the soil or provided in the composition itself. In some embodiments, the nutrient system includes a sulfide scavenging agent such as iron sulfate. In the same or other embodiments, the nutrient system includes at least one of a nitrogen source and a phosphorous source.

88. High-magnesium concentrated liquid and high-magnesium potable-water mixing system

Date: 2018-06-19 | ID: 10000395

Abstract: A high-magnesium concentrated liquid is disclosed. In a first embodiment, the high-magnesium concentrated liquid comprises magnesium ranged from 60000-70000 ppm, sodium ranged from 1000-3200 ppm, potassium ranged from 300-3000 ppm, calcium ranged from 100-300 ppm, and the balance of water. In a second embodiment, the high-magnesium concentrated liquid comprises magnesium ranged from 40000-50000 ppm, sodium ranged from 8000-18000 ppm, potassium ranged from 8000-17000 ppm, calcium ranged from 15-250 ppm, and the balance of water.

89. Dissolution chamber system

Date: 2018-06-19 | ID: 10000396

Abstract: An ozone dissolution chamber utilizes the principle of laminar stratification of gas in a turbulent dissolution chamber. The dissolution chamber is much shorter in height than the conventional tower dissolution chamber, and ensures a high degree of dissolution of ozone in water and, consequently, a high degree of oxidation of organic and metal impurities to a final oxidation state.

90. Multiple attached growth reactor system

Date: 2018-06-19 | ID: 10000397

Abstract: Described herein are attached growth reactor systems which increase nitrifying bacteria biomass through a variety of means during warm weather. As a consequence, the attached growth reactor system contains sufficient nitrifying bacteria biomass to remove ammonia from wastewater in cold to moderate climates. In one example, there are two attached growth reactors into which wastewater is distributed discontinuously. Specifically, wastewater is transferred to the first attached growth reactor for a first period of time and then is transferred to the second attached growth reactor for a second period of time during warm weather which effectively doubles the nitrifying bacteria biomass in the system. During cold weather, approximately half of the wastewater is applied to each reactor simultaneously.

91. Laundry wash water recycle system

Date: 2018-06-19 | ID: 10000400

Abstract: Laundry wash water recycle system comprising a repressurization pump in fluid communication with a storage tank containing previously used wash water for pumping the used wash water sequentially through a lint filter, a cyclone, and a multi-media filter disposed in sequential series wherein the self-cleaning lint filter in sequential series combination with the cyclone removes insoluble solids with the multi-media filter providing a final filtration for obtaining an output of pressurized double filtered cyclonically processed water. An advanced oxidation combination is introduced into pressurized double filtered cyclonically processed water and mixing occurs for producing a double filtered cyclonically processed advanced oxidation treated water that is communicated to a clean water storage tank for providing on demand delivery to at least one washer and continuous delivery of a feedback flow to the inlet storage tank for providing constant recirculation of treated water through the system.

92. Produced water evaporation system

Date: 2018-06-19 | ID: 10000401

Abstract: In accordance with the present invention, problems related to produced water management are addressed. The proposed produced water evaporation system incorporates several simple components in a

closed system to achieve a safe and effective produced water reduction alternative that can be efficient and sustainable on active natural gas well pads.

93. Producing algal biomass and products from organic solid material

Date: 2018-06-19 | ID: 10000402

Abstract: A method for treating solid organic materials includes providing phagotrophic algae, providing solid organic material, combining the algae and the solid organic material, allowing the algae to grow by engulfing or uptaking the solid organic material, forming an algal product, and collecting the algal product. The method can also include a pretreatment step. The solid organic material can be waste activated sludge. A system for treating and disposing solid organic material is also provided.

94. Power supply system and connector

Date: 2018-06-19 | ID: 10000503

Abstract: A power supply system and a connector, which can suppress occurrence of crosstalk between a power supply wire, and a control wire and an earth wire in a charging cable that includes the power supply wire, the control wire and the earth wire at the time of connecting a power supplying device with a vehicle having a power storage device to be supplied with power from the power supplying device via the power supply wire and the earth wire to be used for supplying power and the control wire for transmitting a control signal to be used for power supply control of the power storage device, are provided. The ratio of the winding number of a primary coil connected with at least one of the control wire and the earth wire to the winding number of a secondary coil connected with a communication unit that sends and receives a communication signal is set at 1/N (N>1) in a system which satisfies VnC>VnL or is set at N (N>1) in a system which satisfies VnC<VnL.

95. Template-fixed peptidomimetics

Date: 2018-06-19 | ID: 10000535

Abstract: Template-fixed -hairpin peptidomimetics of the general formula wherein Z is a template-fixed chain of 4 -amino acid residues which, depending on their positions in the chain (counted starting from the N-terminal amino acid) are Gly, or of certain types which, as the remaining symbols in the above formula, are defined in the description and the claims, and salts thereof, have the property to agonize or to antagonize GPCR receptors such as CXCR3, urotensin and CCR10. They can be used as medicaments to treat or prevent diseases such as cardiovascular disorders, dermatological disorders, endocrine system and hormone disorders, metabolic diseases, inflammatory diseases, neurological diseases, respiratory diseases, haematological diseases and cancer. These -hairpin peptidomimetics can be manufactured by a process

which is based on a mixed solid- and solution phase synthetic strategy.

96. High performance Ziegler-Natta catalyst systems, process for producing such supported catalysts and use thereof

Date: 2018-06-19 | ID: 10000589

Abstract: A method for making a solid catalyst component for use in a Ziegler-Natta catalyst includes combining in a hydrocarbon solvent a porous particulate support with a hydrocarbon soluble organomagnesium compound to form a suspension. The organomagnesium compound is halogenated followed by addition of an alcohol and the mixture is then reacted with a titanium compound followed by a reaction with at least one diether compound to form the solid catalyst component. Afterwards the reaction product is extracted with a mixture of a titanium compound and a hydrocarbon solvent. The solid catalyst component recovered is combined with an aluminum cocatalyst to form a Ziegler-Natta catalyst system for the polymerization of olefins. In particular, the catalyst system including a diether internal electron donor may have an activity and hydrogen response suitable for the production of propylene polymers having a molecular weight distribution (PI(GPC)) in the range from about 5.75 to about 9.

97. Catalyst system for polymerization of an olefin

Date: 2018-06-19 | ID: 10000591

Abstract: A process for the preparation of a catalyst system for olefin polymerization, including: A) providing said procatalyst obtainable via a process comprising: i) contacting a compound R4zMgX42-z with an alkoxy- or aryloxy-containing silane compound to give a first intermediate reaction product, ii) optionally contacting the solid product obtained in step i) with at least one activating compound selected from an activating electron donor or metal alkoxide compound; iii) contacting the first or second intermediate reaction product, with a halogen-containing Ti-compound and optionally an internal electron donor to obtain the procatalyst; and B) contacting the procatalyst with a co-catalyst and at least diethylaminotriethoxysilane as the external donor. Further disclosed is a catalyst system obtained by the process; a process for preparing a polyolefin by contacting at least one olefin with the catalyst system; a polyolefin obtained thereby; a composition comprising a propylene-ethylene copolymer; a shaped article thereof; and use of the polyolefin.

98. Supported Salan catalysts

Date: 2018-06-19 | ID: 10000593

Abstract: A catalyst system including the reaction product of a fluorided support, an activator, and at least a first transition metal catalyst compound; methods of making such catalyst systems, polymerization processes using such catalyst systems, and polymers made therefrom.

99. Dual catalyst system for producing LLDPE copolymers with a narrow molecular weight distribution and improved processability

Date: 2018-06-19 | ID: 10000594

Abstract: Disclosed herein are ethylene-based polymers generally characterized by a Mw ranging from 70,000 to 200,000 g/mol, a ratio of Mz/Mw ranging from 1.8 to 20, an IB parameter ranging from 0.92 to 1.05, and an ATREF profile characterized by one large peak. These polymers have the dart impact, tear strength, and optical properties of a metallocene-catalyzed LLDPE, but with improved processability, melt strength, and bubble stability, and can be used in blown film and other end-use applications.

100. Weatherable sheet for solar cell module, product obtained using the sheet, and process for producing the weatherable sheet for solar cell module

Date: 2018-06-19 | ID: 10000616

Abstract: The present invention provides a weather-resistant sheet for a solar cell module, which has better adhesion to a water impermeable sheet, better blocking resistance against the water impermeable sheet, and better adhesion to EVA that is a sealant; a weather-resistant sheet for a solar cell module in which a cured coating film layer thereof can suppress UV transmission significantly; a product including the sheet; and a process for producing the sheet. The weather-resistant sheet for a solar cell module includes, on a water impermeable sheet, a cured coating film layer made of a crosslinked product of a coating composition that includes a hydroxyl group-containing fluoropolymer, wherein in a pressure-resistance test performed when a crosslinking degree of the cured coating film layer is 80 to 99%, the cured coating film layer and the water impermeable sheet without a cured coating film layer formed thereon are not adhered to each other after a load has been applied to the cured coating film layer and the water impermeable sheet being stacked.

101. Coherent LADAR using intra-pixel quadrature detection

Date: 2018-06-19 | ID: 10000000

Abstract: A frequency modulated (coherent) laser detection and ranging system includes a read-out integrated circuit formed with a two-dimensional array of detector elements each including a photosensitive region receiving both return light reflected from a target and light from a local oscillator, and local processing circuitry sampling the output of the photosensitive region four times during each sample period clock cycle to obtain quadrature components. A data bus coupled to one or more outputs of each of the detector elements receives the quadrature components from each of the detector elements for each sample period and serializes the received quadrature components. A processor coupled to the data bus receives the serialized quadrature components and determines an amplitude and a phase for at least one interfering frequency

corresponding to interference between the return light and the local oscillator light using the quadrature components.

102. 3-D electrostatic printer using rack and pinion registration system

Date: 2018-06-19 | ID: 10000010

Abstract: 3-D printing system include development stations positioned to electrostatically transfer build and support materials to an intermediate transfer surface, a transfer station adjacent the intermediate transfer surface, guides adjacent the transfer station, and platens moving on the guides. The guides are shaped to direct the platens to repeatedly pass the transfer station and come in contact with the intermediate transfer surface at the transfer station. The intermediate transfer surface transfers a layer of the build and support materials to the platens each time the platens contact the intermediate transfer surface at the transfer station to successively form layers of the build and support materials on the platens. The platens and the intermediate transfer surface include rack and pinion structures that temporarily join at the transfer station, as the platens pass the transfer station, to align the platens with the intermediate transfer surface as the platens contact the intermediate transfer surface.

103. System and method for removing three-dimensional printed parts from a platen using inductive heating and gravity

Date: 2018-06-19 | ID: 10000051

Abstract: A method of manufacturing a three-dimensional object facilitates removal of the three-dimensional object from the platen on which the object was formed. The method includes rotating the platen from a horizontally level position to a position at an angle to the level position to enable gravity to urge the three-dimensional object away from the platen and inductively heating the platen to melt support material at the boundary of the object and the platen to release the three-dimensional object from the platen.

104. Methods for rejuvenating an imaging member of an ink-based digital printing system

Date: 2018-06-19 | ID: 10000052

Abstract: Disclosed herein are methods for an ink-based digital printing system, comprising providing an imaging member a reimageable surface layer disposed on a structural mounting layer, the reimageable surface layer comprising a fluorosilicone elastomer and an infrared-absorbing filler comprising carbon black, and a plurality of surface defects on the reimageable surface layer, wherein the surface defects comprises carbon black exposed through the fluorosilicone elastomer of the reimageable surface layer. The method also comprises applying a coating of rejuvenating oil comprising an amino-functional organopolysiloxane to the reimageable surface layer, whereby at least a portion of the plurality of surface defects are coated by the

amino-functional organopolysiloxane, thereby rejuvenating the imaging member.

105. Sheet-processing machine having a sheet-guiding drum, and method for producing a gripper system

Date: 2018-06-19 | ID: 10000054

Abstract: A sheet-guiding drum in a sheet-processing machine, comprises a gripper system, a gripper shaft, and a gripper tube. A method for producing a gripper system is also disclosed. The sheet-guiding drum further improves the sheet transport process, in particular the turning process, in sheet-processing machines. The problem addressed by the invention is in particular the provision of a low-wear rolling-element bearing that preferably eliminates the aforementioned disadvantages and, in particular, meets all further boundary conditions. This problem is solved in that the gripper tube is assembled from tube segments.

106. Controlling nozzles in a print head

Date: 2018-06-19 | ID: 10000057

Abstract: Certain examples described herein relate to printing systems and methods of operating the same. In an example of a printing system, a nozzle diagnostic mechanism obtains information relating to a condition of a first nozzle set of a print head following a first period of an established printing operation, and a nozzle compensator receives information relating to the condition of the first nozzle set from the nozzle diagnostic mechanism. Based on the received information, the nozzle compensator then causes a second nozzle set of the print head to be operated in place of the first nozzle set of the print head during a second period of the established printing operation. In an example of a method of operating a printing system, status information that relates to a condition of a first nozzle set of a print head is determined during a print production operation. A second nozzle set of the print head is then caused, based on the status information determined, to be operated in place of the first nozzle set to continue the print production operation.

107. Inkjet printing system having dynamically controlled ink reservoir

Date: 2018-06-19 | ID: 10000065

Abstract: An inkjet printing system includes an ink reservoir defining a longitudinal axis, an ink-receiving chamber and a control chamber. A control fluid source delivers a control fluid across a range of pressure levels to the control chamber, and an orientation sensor determines an orientation of the longitudinal axis of the ink reservoir and generates an orientation signal. A processor is operably coupled to the control fluid source and the orientation sensor, the processor being programmed to infer an angle of the longitudinal axis relative to the vertical reference axis based on the orientation signal from the orientation sensor, determine a desired pressure for the control chamber based, at least in part, on the inferred angle of the longitudinal axis,

and control the control fluid source to adjust the actual pressure level in the control chamber to the desired pressure for the control chamber.

108. Drying device and inkjet printer system including drying device

Date: 2018-06-19 | ID: 10000076

Abstract: A drying device includes a drying section to dry a recording medium; a cooling section to cool the recording medium conveyed from the drying section; and a duct to expel air inside the drying section to outside the drying device. The duct includes a joint section where the air from the drying section meets air from the cooling section meet. The air from the drying section containing moisture and solvent medium is cooled in the duct.

109. Piezoelectric based system and method for determining tire load

Date: 2018-06-19 | ID: 10000100

Abstract: Systems and methods of determining tire load from measured tire parameters include using a piezoelectric based sensor to obtain one or more contact patch parameters (e.g., contact patch entry time, contact patch exit time total contact patch time and contact patch angle) and one or more additional sensors to obtain tire pressure. Selected contact patch parameter measurements and pressure values are then compared with known combinations of contact patch parameter values and pressure values stored in a look-up table. A corresponding determined tire load value is then provided as electronic output.

110. Method of controlling a vehicle active suspension system

Date: 2018-06-19 | ID: 10000103

Abstract: A method of controlling a vehicle active suspension system may include, in response to an object being detected forward of the vehicle and a vehicle speed exceeding a threshold, identifying an object classification associated with the object. The method may further include actuating the active suspension system to induce a vibration signature in the vehicle based on the object classification such that a different identified object classification corresponds to a different vibration signature.

111. Damper with integrated electronics

Date: 2018-06-19 | ID: 10000104

Abstract: The present disclosure relates to a damper system for a vehicle. The damper system may have an electrically adjustable hydraulic shock absorber including a rod guide assembly, a pressure tube, a reserve tube and an electromechanical valve. The electromechanical valve may be disposed in a valve cavity within the shock absorber. An integrated electronic system may be included which has a power drive electronics.

The power drive electronics is electrically coupled to the electromechanical valve. The integrated electronic system is disposed along an axis parallel to a longitudinal axis of the pressure tube, and at a location radially outwardly of the pressure tube adjacent the rod guide assembly.

112. Vehicle air conditioning system

Date: 2018-06-19 | ID: 10000109

Abstract: Air conditioning systems and methods for a vehicle having a start-stop engine system. The systems and methods cool the vehicle's passenger cabin when the vehicle's engine and air conditioning compressor are off.

113. Air conditioning system for motor vehicles

Date: 2018-06-19 | ID: 10000110

Abstract: An air conditioning system for motor vehicles includes an air conditioner case having a drainage port, an evaporator installed within the air conditioner case, a drainage hose configured to discharge condensate water generated in the evaporator to the outside of a vehicle room, the drainage hose connected to the drainage port and drawn out to the outside of the vehicle room through a dashboard, and a connector means configured to rotatably connect the drainage hose to the drainage port of the air conditioner case so as to permit rotation of the drainage hose with respect to the drainage port when the drainage hose is twisted in an assembling process of the drainage hose.

114. Vehicle computer system with transparent display

Date: 2018-06-19 | ID: 10000121

Abstract: The invention relates to a vehicle computer system. The vehicle computer system gathers data from a safety sensor to determine whether the proper safety conditions are present for the vehicle operator to interact with the vehicle computer system. A safety controller receives safety condition data gathered from the safety sensor and instructs the display manager to disable the display of information to the vehicle operator during unsafe operating conditions. The vehicle computer system advantageously employs a transparent display screen to provide greater field of vision of the vehicle operator than could be provided by a traditional display screen.

115. Method for operating parallel auxiliary converters in a rail vehicle

Date: 2018-06-19 | ID: 10000122

Abstract: In a method for supplying an electrical load of a vehicle with electrical energy by auxiliary converters connected in parallel on the alternating-voltage side, a current flow between the auxiliary converters and a

grounded N conductor of an energy supply network is interrupted in the presence a ground fault. The auxiliary converters connected in parallel on the alternating-voltage side are operated with fundamental-wave and pulse synchronicity. An energy supply system of a vehicle, in particular of a rail vehicle, performs this method, with the energy supply system including at least two auxiliary converters arranged in parallel, an energy supply network for supplying electrical loads, at least one switch for interrupting a current flow between the auxiliary converters and the energy supply network.

116. Hybrid vehicle

Date: 2018-06-19 | ID: 10000123

Abstract: When such an abnormality that a battery voltage system voltage is brought into an overvoltage state during regenerative control of a motor occurs, a booster converter is shut down, a system main relay is brought into a non-arc state and turned off. Then, an engine is started when an operation of the engine is stopped. The booster converter is used to determine turning-off of the system main relay, and a battery-less travel is started thereafter. In this way, inconvenience that possibly occurs by starting the battery-less travel at a time when abnormality of the system main relay being stuck to be on occurs can be avoided.

117. Parallel charging and power supply system for pure electric vehicle

Date: 2018-06-19 | ID: 10000127

Abstract: A parallel charging and power supply system for a battery electric vehicle comprises a battery unit, a battery management system, a vehicle control unit, a motor controller and a motor, wherein a corresponding signal output end and a signal input end of the battery management system are respectively connected with a corresponding signal input end and a signal output end of the battery unit; the motor controller is respectively connected with a power output end of the battery unit, a power input end of the motor and a signal output end of the motor; a signal input end of the vehicle control unit is respectively connected with the corresponding signal output ends of the battery management system and the motor controller.

118. Charging management system and method for charger of electric vehicle

Date: 2018-06-19 | ID: 10000130

Abstract: A charging management system (CMS) and a charging management method for a charger of an electric vehicle are provided. The CMS includes a charger grid micro-dispatching system (CGMS) module, a charger battery management system (CBMS) module, a charger vehicle-dispatching management system (CVMS) module, a charger network management system (CNMS) module, and a charger charging management system (CCMS) module. An intelligent safety redundant strategy and a fault recording strategy

are introduced, and multiple related parameters of a battery management system (BMS) are built in the CBMS module, so as to realize an intelligent active protection during charging the electric vehicle. Meanwhile, through analyzing the BMS and characteristic data of a power battery, cooperating with the CCMS module, adopting a multi-dimension data analyzing and controlling strategy, and outputting an optimized flexible curve current based on battery charging, life time of the battery is lengthened.

119. Systems for determining relative position and orientation of a vehicle with respect to a charging station

Date: 2018-06-19 | ID: 10000131

Abstract: A guidance system for a motor vehicle comprising: a controller, the controller being operable to determine whether a first length of cable is sufficiently long to allow a charging connection to be established between a motor vehicle and a charging station in dependence on data corresponding to a relative position and orientation of the vehicle with respect to the charging station; and output means for providing an output to a user indicating whether the cable is sufficiently long.

120. Wireless charging system for charging vehicular battery

Date: 2018-06-19 | ID: 10000134

Abstract: A wireless charging system may be used to charge a battery in a vehicle via a receiving coil. The wireless charging system may include a coil charge device, a linear track, a linear motor, and a charge control module. The coil charge device includes a carriage and a transmitting coil positioned on the carriage. The linear track extends across a designated path. The coil charge device is positioned on and moveable along the linear track. The linear motor is operable to move the coil charge device along the linear track. The charge control module controls a position of the coil charge device along the designated path via the linear motor.

121. Safety system of fuel cell vehicle and control method for the same

Date: 2018-06-19 | ID: 10000139

Abstract: Disclosed are a safety system of a fuel cell vehicle and a control method for the safety system. A safety system of a fuel cell vehicle using a fuel cell and a high voltage battery as a power source may include: a power switch disposed on a power wire connecting the power source and a power load to each other; an insulation resistance measuring device measuring an insulation resistance between the power wire and a chassis; and a controller controlling an operation of the power switch based on a measured insulation resistance measured by the insulation resistance measuring device. When the measured insulation resistance is equal to or less than a reference resistance, the controller enters a safe mode and the power

switch is turned off to thereby block power supplied to the power load.

122. Method and system for controlling fuel cell vehicle

Date: 2018-06-19 | ID: 10000141

Abstract: A method and system for controlling a fuel cell vehicle are provided. The method includes determining, by a controller, a driving pattern of a driver based on driving information including acceleration and deceleration information. A condition for activation of an idling-stop of a fuel cell is then set based on the determined driving pattern and the fuel cell is stopped from generating electric energy when the condition for activation of the idling-stop is satisfied.

123. Head and neck restraining system

Date: 2018-06-19 | ID: 10000142

Abstract: In a method of head and neck restraint the head of a subject is secured to a head and neck restraint assembly that limits movement of the head. In response to sudden force in a first direction, whereupon the head of the subject experiences a force in a second direction, the head and neck restraint assembly controls deceleration of the head in the second direction and avoids rebounding of the head after deceleration.

124. Debris catching system for a child seat

Date: 2018-06-19 | ID: 10000143

Abstract: A debris catching system for positioning against a typical child seat used in vehicles uses a pair of panel members, each disposed against one of the sides of the child seat and cinched to the base of the child seat via a pair of strap systems with a third strap system stabilizing the panels against a medial section of a back member of the child seat. Each panel has one or more pockets to catch and hold debris therein with the panels and their pockets being made from a moisture impervious material. An optional panel can be attached to each of the above panels and slide with respect to such panels so as to be raisable to help block sun and other unwanted light from shining onto the occupant of the child seat.

125. Air bag system for lifting trailer platforms

Date: 2018-06-19 | ID: 10000145

Abstract: The application discloses integrated air suspension and platform lifting systems that utilize an existing air supply for lifting one or more platforms installed in a trailer or hauling vehicle. An apparatus for lifting a rear gate or platform of a trailer or a hauling vehicle is disclosed that includes an actuating mechanism operable to pivot the platform between a lowered position (e.g., where the end of the platform is in contact with the ground) and a range of raised positions (e.g., where the platform is raised to meet an

elevated platform such as a loading dock). The lifting mechanisms for raising and lowering the platform(s) may utilize a pressurized gas supply from a compressor. In some embodiments, the lifting mechanism may be supplied with pressurized air from a compressor of a brake system of a tractor. In some embodiments a separate locking mechanism is provided to hold the platform in place after the lifting system has moved it into a desired position.

126. External audio alert system and method for vehicular use

Date: 2018-06-19 | ID: 10000152

Abstract: In embodiments of the present invention, an Alert Controller coupled to an Internal Digital Communication System (IDCS) of a vehicle monitors vehicle states based on messages received over the IDCS and generates audio alerts projected external to the vehicle based on the vehicle states. Multiple vehicle states may be defined, with each vehicle state associated with receipt of one or more types of messages in a particular sequence and/or within a particular timeframe. Different audio alerts may be assigned to different vehicle states. The audio alerts may be customizable such as by the vehicle manufacturer and/or vehicle owner/operator. An alert selection interface may be provided in the vehicle for user-selection of audio alerts.

127. System for object indication on a vehicle display and method thereof

Date: 2018-06-19 | ID: 10000153

Abstract: Presence of an object can be indicated on a display of a vehicle. Multiple indicators can be displayed on the display of the vehicle, where each indicator corresponds to one of multiple portions of a drawing area associated with the display. Presence of the object can be detected within a travel direction of the vehicle. Location information of the object can be associated with one of the multiple portions of the drawing area. One of the multiple indicators that corresponds to the one of the multiple portions of the drawing area can be highlighted on the display as an alert of the presence of the object.

128. Vehicle camera system having live video indication

Date: 2018-06-19 | ID: 10000154

Abstract: A vehicle display displays a camera video having an indicator. The indicator is static on the display while the camera video is frozen on the display thereby notifying a viewer that the camera video is frozen and the indicator is dynamic on the display while the camera video is live on the display.

129. Storage bin system for a motor vehicle

Date: 2018-06-19 | ID: 10000159

Abstract: A storage bin system is provided for a motor vehicle. That storage bin system includes a first cargo compartment sidewall having a first storage cavity with a first rearwardly oriented access opening. Further, the storage bin system includes a first removable storage bin received and held in the first storage cavity.

130. Vehicle article carrier with integrated camera and solar powered lighting

Date: 2018-06-19 | ID: 10000160

Abstract: A vehicle article carrier system is disclosed for carrying articles above an outer body surface of a vehicle. The system may incorporate at least one support rail secured to the outer body surface. The support rail may have a support foot portion at each of its opposite ends, with each support foot portion secured to the outer body surface of the vehicle. A sensor may be mounted on the at least one support rail or one of the support feet portions for sensing a characteristic within a field of view around the vehicle and providing related information to a subsystem of the vehicle.

131. Vehicle electrical system and method for operating a vehicle electrical system

Date: 2018-06-19 | ID: 10000168

Abstract: A vehicle electrical system includes a first system branch with a first nominal voltage U1, a second system branch with a second nominal voltage U2, at least one DC/DC converter configured to transmit energy between the first and second system branches, a first actuating unit to actuate the DC/DC converter(s), a first detection unit to detect an instantaneous voltage Uact,1 of the first system branch, and a comparison unit to compare the detected instantaneous voltage Uact,1 to a first upper voltage threshold value Uo,1 and to a first lower voltage threshold value Uu,1, wherein Uu,1<U1<Uo,1. The first actuating unit actuates the DC/DC converter(s) such that energy is transmitted from the first system branch to the second system branch if Uact,1>Uo,1, and such that energy is transmitted from the second system branch to the first system branch if Uact,1<Uu,1.

132. Pressure unit and end fitting having a pressure unit of this type

Date: 2018-06-19 | ID: 10000185

Abstract: The invention relates to a pressure unit (64) for pressurizing a belt shaft (12) in a seat belt system comprising a screw (66) for fastening the pressure unit (64) to a frame (18) of the seat belt system, the screw (66) including a screw head (68) and a screw shank (70), wherein the pressure unit (64) comprises a fastening portion (72) having a screw hole (74) for inserting the screw shank (70), wherein radial play is provided between the screw hole (74) and the screw shank (70) and the fastening portion (72) on the screw head side includes mounting arms (76) for axially fixing the screw (66) in a pre-assembly position. Moreover, the invention also comprises an end fitting (11) of a seat belt system comprising such pressure unit (64).

133. Belt assembly including plus-two-point belt reminder

Date: 2018-06-19 | ID: 10000186

Abstract: A plus-two-point belt system is disclosed. The plus-two-point belt system includes a longitudinal webbing anchored at a first end to a seat and fixed at a second end to a retractor. The webbing is extendable from the retractor to allow an occupant to slip their arm under the webbing to provide a supplemental restraint. The webbing includes first and second portions where the second portion is retractably coiled on the retractor and the second portion has at least one conductive marker. A sensor is provided to sense the marker and a processor is provided to set an alarm when the marker is not detected.

134. Vehicle communication system, in-vehicle device, portable device, and computer program

Date: 2018-06-19 | ID: 10000187

Abstract: In the vehicle communication system provided with the in-vehicle device for transmitting and receiving signals using the plurality of antennas, which are provided in different positions in the vehicle, and the portable device for transmitting and receiving the signals, the in-vehicle device: stores statistical values derived by measuring in advance received signal strengths of signals transmitted from a part of the plurality of antennas in association with information identifying antennas of transmission sources, for each of the inside and the outside of a vehicle cabin of measured positions; detects an antenna having a failure; calculates, for inside and outside the vehicle cabin, the statistical distance between the measured received signal strength and the statistical values corresponding to the selected antennas; makes a comparison between the results of the calculation; and determines whether the portable device is inside or outside the vehicle cabin.

135. Hydraulic jack retrofit for trailer

Date: 2018-06-19 | ID: 10000189

Abstract: A system for retrofitting a trailer having a crank jack with a jack housing and a drop leg includes a hydraulic cylinder including a main cylinder and a ram piston extending outwardly therefrom as the main cylinder is filled with pressurized fluid, a first mounting ear on the hydraulic cylinder and a second mounting ear on the hydraulic cylinder, the first mounting ear opposite the second mounting ear, a cylinder port positioned orthogonally to the first mounting ear and the second mounting ear and positioned between the first mounting ear and the second mounting ear, and a conversion foot sized and shaped to fit within the jack housing and adapted to support the hydraulic cylinder.

136. Brake system and method for controlling a brake system

Date: 2018-06-19 | ID: 10000191

Abstract: A brake system for a vehicle having a master brake cylinder, which provides a pressure signal, having a brake-medium reservoir connected to the master brake cylinder, and a first brake circuit, which is coupled by a first input to the master brake cylinder and by a second input to the brake-medium reservoir, and having at least one first wheel-brake cylinder, which is mounted at a first wheel, in order to exert a force corresponding to the pressure signal onto the first wheel, and having a separator valve, which is configured between the first input and the first wheel-brake cylinder, to prevent further transmission of the pressure signal upon receipt of a supplied closing signal; and having a control valve, which is configured between the first input and the first wheel-brake cylinder; in order to control an inflow of a brake medium from brake-medium reservoir to the first wheel-brake cylinder. In addition, a method for controlling a corresponding brake system is also described.

137. Method, controller and system for monitoring brake operation

Date: 2018-06-19 | ID: 10000194

Abstract: Various embodiments of an apparatus and method for monitoring a brake operation are disclosed. In accordance with one aspect, the brake operation monitoring system comprises a plurality of wheel speed sensors, a brake demand sensor; a plurality of stability sensors and a controller. The controller comprises wheel speed ports; a brake demand port; stability sensor ports; a communication port for receiving a plurality of messages; and a processing unit comprising control logic. The control logic receives a brake demand signal, at least one stability signal indicative of the cornering of the vehicle, and individual wheel speeds. The control logic calculates a master value to compare to individual wheel speed signals if the brake demand signal indicates no braking.

138. Apparatus and method for controlling torque reduction of hybrid electric vehicle

Date: 2018-06-19 | ID: 10000196

Abstract: A method for controlling torque reduction of a hybrid electric vehicle including a motor and an engine as a power source includes: determining whether a traction control system (TCS) is operating; calculating a demand torque of the TCS when the TCS is operating; determining an engine operating point according to the demand torque of the TCS; maintaining an engine torque according to the engine operating point; comparing a difference between the demand torque of the TCS and the engine torque according to the engine operating point with a charging limit torque of the motor; and performing torque reduction using a motor torque and the engine torque based on a result of the comparison.

139. Mild hybrid powertrain controls

Date: 2018-06-19 | ID: 10000197

Abstract: Mild hybrid powertrain controls and apparatuses, methods and systems including the same are disclosed. One exemplary embodiment is a mild-hybrid system comprising an engine, an electrical machine, power electronics, an energy storage system, and an electrical load. The system includes a controller structured to receive an electrical machine power command based upon a power allocation to the electrical machine, process the electrical machine power command with feedforward controls structured to compensate for an inaccuracy associated with the power electronics, process the electrical machine power command with proportional integral (PI) controls structured to compensate for a power loss associated with one or more electrical loads, provide a compensated machine power command based upon the processing with the feedforward controls and the processing with the PI controls, and output the compensated machine power command to control the electrical machine.

140. Control system and control method

Date: 2018-06-19 | ID: 10000198

Abstract: In a control system and a control method, an electronic control unit is configured to crank an engine by setting a clutch to a half engaged state in a state where operation of the engine is stopped during traveling. The half engaged state is a state where the clutch is engaged with a slip. The electronic control unit is configured to, after a rotation speed of the engine has reached an ignition permission rotation speed or higher, increase a transmitted torque capacity of the clutch to a transmitted torque capacity that satisfies the following conditions i) and ii): i) the transmitted torque capacity is larger than a transmitted torque capacity before the rotation speed of the engine has reached the ignition permission rotation speed; and ii) the transmitted torque capacity allows the clutch to be kept in the half engaged state.

141. Torque reserve in a hybrid system

Date: 2018-06-19 | ID: 10000200

Abstract: Devices, methods, and systems including a controller for a hybrid system. The controller includes an electronic processor configured to receive inputs defining a current condition of the hybrid system. The inputs include an acceleration input and an engine speed input. The electronic processor is configured to determine a desired torque based at least in part on the acceleration input, determine an actual torque based at least in part on the engine speed input, and set a torque strategy to operate an internal combustion engine at a high efficiency level when the desired torque is different than the actual torque.

142. Control apparatus for power transmission system

Date: 2018-06-19 | ID: 10000206

Abstract: When an electrical continuously variable transmission malfunctions and the operation of an engine is stopped, an automatic transmission is caused to upshift. Therefore, when the rotation of the engine is stopped as a result of a stop of the operation, an AT input rotation speed is decreased as compared to that before it is determined that there is a malfunction in the electrical continuously variable transmission. Thus, an MG1 rotation speed is decreased in absolute value as compared to when the automatic transmission is not caused to upshift, so an overspeed of a first electric motor is prevented.

143. Vehicle hitch detection system and method

Date: 2018-06-19 | ID: 10000207

Abstract: A vehicle hitch detection system is provided. The vehicle hitch detection system includes a camera arranged to capture images of a vehicle hitch and a controller processing the images to detect a powered hitch ornament connected to the hitch based on the processed images when an electrical hitch connection is detected. The controller may further control a driver assistance system based on the detected hitch ornament to enable or disable the system.

144. Vehicle controls including dynamic vehicle parameter determination

Date: 2018-06-19 | ID: 10000214

Abstract: Apparatuses, methods, systems and controls including dynamic vehicle parameter determination are disclosed. One embodiment is a method of operating a vehicle system including a powertrain comprising a prime mover structured to propel the vehicle, and an electronic control system in operative communication with the prime mover and the transmission. The method includes estimating a plurality of coefficients of a vehicle loss model, evaluating a convergence criterion for the plurality of estimated coefficients, setting converged values of the plurality of coefficients if the convergence criterion is satisfied, determining a vehicle powertrain command utilizing the converged values of the plurality of coefficients, and transmitting a vehicle powertrain command to control operation of one or more powertrain components.

145. Engaging and disengaging for autonomous driving

Date: 2018-06-19 | ID: 10000216

Abstract: Aspects of the present disclosure relate switching between autonomous and manual driving modes. In order to do so, the vehicle's computer may conduct a series of environmental, system, and driver checks to identify certain conditions. The computer may correct some of these conditions and also provide a driver with a checklist of tasks for completion. Once the tasks have been completed and the conditions are changed, the computer may allow the driver to switch from the manual to the autonomous driving mode. The computer

may also make a determination, under certain conditions, that it would be detrimental to the driver's safety or comfort to make a switch from the autonomous driving mode to the manual driving mode.

146. Bi-modal traffic system

Date: 2018-06-19 | ID: 10000218

Abstract: Bi-modal traffic system including an integrated path network for bi-modal vehicles, especially for bi-modal trucks, wherein the bi-modal vehicles are configured so that they run both on rail tracks as well as on road tracks. The integrated path network includes at least one rail network and one road network, wherein the at least one rail network and the at least one road network are coupled by at least one junction. The at least one junction is configured so that bi-modal vehicles may change from rail network to a road network and may adapt their speed so that a change of a bi-modal vehicle from the rail network into the road network does not impair the ongoing traffic on the road network, and/or is configured so that bi-modal vehicles may change from a road network to a rail network and may adapt their speed so that a change of a bi-modal vehicle from the road network into the rail network does not impair the ongoing traffic on the rail network.

147. Device for applying an auxiliary force in a motor vehicle steering system

Date: 2018-06-19 | ID: 10000231

Abstract: An apparatus for applying an auxiliary force in a motor vehicle steering unit may include a driving worm that is connectable to an electric motor and applies an auxiliary force on the motor vehicle steering unit through a worm wheel. The driving worm may be housed in a roller bearing. The roller bearing can be pivoted about a pivoting axis defined by a pivot element outside the roller bearing.

148. Method of controlling an inverter during MOSFET shorts

Date: 2018-06-19 | ID: 10000233

Abstract: Technical solutions are described for mitigating braking torque in a motor of a steering system caused by a FET short. For example, an example mitigation system includes a mitigation module that adjusts a motor torque in response to a FET short. The mitigation system further includes a mitigation-enable module that selectively enables and disables the mitigation module based on a handwheel torque signal. Further, the mitigation system includes a damping module that reduces the motor torque based on a motor velocity signal for the motor.

149. Steering control apparatus and method of steer-by-wire system

Date: 2018-06-19 | ID: 10000234

Abstract: A steering control apparatus of an SBW system may include: a power motor configured to output a

steering force in the SBW system; a power motor position sensor configured to sense an angular position of the power motor; a steering angle sensor configured to sense a steering angle of a steering wheel; a vehicle velocity sensor configured to sense a vehicle velocity; and a power motor control unit configured to calculate a target steering angle from the steering angle, and drive the power motor according to the target steering angle. The power motor control unit may calculate a feedback steering angle reflecting an output angle of a wheel, calculate a compensation steering angle for variably controlling the output angle of the wheel based on the feedback steering angle and the vehicle velocity, and corrects the target steering angle using the compensation steering angle.

150. Driving support device for vehicle steering systems in lane assist and collision avoidance modes

Date: 2018-06-19 | ID: 10000237

Abstract: In a driving support device for a vehicle including a collision avoidance support system and a lane travel support system, a steering control amount is set while maintaining an appropriate relationship between both of the systems. This is by setting a lower upper limit value for the steering torque command during collision avoidance as compared to lane travel support. However, a gradient (i.e., rate of change) of the collision avoidance is set to be greater than a gradient of the lane travel support. As a result, the driving support device balances collision avoidance and lane travel support to have quick response during collision avoidance, and maintaining the ability to adapt to wide changes in road condition during lane travel support.

151. Modular system

Date: 2018-06-19 | ID: 10000238

Abstract: A modular system in the form of a load-bearing frame to be arranged in a tail region of a motor vehicle. The modular components which are to be linked or are linked include at least one cast structure and at least two profiles, the cast structure comprising at least one node.

152. Rotatable robot foot with perpendicular soles

Date: 2018-06-19 | ID: 10000248

Abstract: Example embodiments relate to a robotic device with at least two legs. Each leg includes a foot including a first sole and a second sole perpendicular to the first sole. Each leg additionally includes an ankle joint configured to rotate the foot from a first position in which the first sole is contacting a ground surface to a second position in which the second sole is contacting the ground surface. The robotic device includes a control system. When the foot of a given leg of the at least two legs is in the first position, the control system may determine to cause the foot of the given leg to switch from the first position to the second position, and

may cause the ankle joint of the given leg to rotate the foot of the given leg from the first position to the second position.

153. Systems and methods for pressure tolerant energy systems

Date: 2018-06-19 | ID: 10000260

Abstract: Systems and methods are disclosed herein for a pressure tolerant energy system. The pressure tolerant energy system may comprise a pressure tolerant cavity and an energy system enclosed in the pressure tolerant cavity configured to provide electrical power to the vehicle. The energy system may include one or more battery cells and a pressure tolerant, programmable management circuit. The pressure tolerant cavity may be filled with an electrically-inert liquid, such as mineral oil. In some embodiments, the electrically-inert liquid may be kept at a positive pressure relative to a pressure external to the pressure tolerant cavity. The energy system may further comprise a pressure venting system configured to maintain the pressure inside the pressure tolerant cavity within a range of pressures. The pressure tolerant cavity may be sealed to prevent water ingress.

154. System, method, and apparatus for stabilizing a boat

Date: 2018-06-19 | ID: 10000261

Abstract: A stabilizer that extends from the hull of a watercraft below the waterline when needed is disclosed. The stabilizer produces added drag on the watercraft's counteracting a tendency to change bearing. Stabilization chambers of the stabilizer hold semi contained water to produce an extended drag effect by adding lateral weight due to the water that is semi contained within the chamber during use. The restricted flow of water into and out of the stabilizer and the outer dimensions of the stabilizer provides lateral drag to mute any ambient drift.

155. Underwater system and method

Date: 2018-06-19 | ID: 10000263

Abstract: Systems and methods are provided for underwater use. In one example the system includes an autonomous mother unmanned underwater vehicle (AMUV) and one or more auxiliary unmanned underwater vehicles (UUV). The AMUV is configured for autonomously searching for and detecting undersea objects potentially present in an undersea region of interest (ROI), for generating object information relating to the objects detected thereby to enable identification of at least one object of interest (OOI) among the detected objects, and for selectively transporting the UUV to at least within a predetermined distance from a location of the OOI. The UUV is configured for interacting with the OOI at least within the predetermined distance. Such a system is further configured for providing verification information indicative of the interaction between the

UUV and the OOI. The AMUV includes a communications system at least configured for transmitting at one or both of the verification information and the object information.

156. Controlling buoyancy of an underwater vehicle using a dual-internal-reservoir configuration to enhance efficiency of inflating and deflating an external chamber

Date: 2018-06-19 | ID: 10000265

Abstract: An underwater vehicle may include a buoyancy control system configured to use a dual-internal-reservoir configuration to enhance efficiency of changing buoyancy of the underwater vehicle. The buoyancy control system may utilize an incompressible fluid (e.g., oil or water) that is transferred between a first internal reservoir and an external chamber to affect buoyancy of the underwater vehicle. In exemplary implementations, a compressible fluid (e.g., air) may be used to inflate or deflate a second internal reservoir. The second internal reservoir may be disposed within the buoyancy control system so that it can act on the first internal reservoir by applying a compressive force or a tensive force on the first internal reservoir, depending on the pressure differences between the two reservoirs.

157. Column based electric assist marine power steering

Date: 2018-06-19 | ID: 10000269

Abstract: An embodiment of a system for controlling a marine vessel includes an electrical power steering unit coupled to a mechanical control system, the mechanical control system including a steering wheel connected by a shaft to a mechanical cable assembly, the mechanical cable assembly configured to be actuated by the steering wheel to control a steering mechanism of the marine vessel. The electrical power steering unit includes an electric motor configured to apply a torque to the mechanical cable assembly. The system also includes a processor configured to control the electrical power steering unit to provide at least one of steering assist and control of the marine vessel.

158. Thermal acoustic insulation blankets

Date: 2018-06-19 | ID: 10000272

Abstract: The present invention pertains to an insulation system comprising one or more insulation blankets, wherein each of said multilayer insulation blankets comprises: a core consisting of an insulation material [material (I)], and a shell encapsulating said core, said shell comprising at least one multilayer assembly comprising: (1) an outer layer [layer (L1)] consisting of a composition [composition (C1)] comprising, preferably consisting of, at least one thermoplastic polymer [polymer (1)] having a limiting oxygen index (LOI) of at least 20% by volume, wherein at least one surface, preferably the inner surface, of said layer (L1) comprises one or more grafted functional groups [surface (L1-f)], (2) directly adhered to said at least one

surface (L1-f), a layer consisting of at least one metal compound (M1) [layer (L2)], and (3) optionally, directly adhered to the opposite side of the layer (L2), a layer consisting of at least one metal compound (M2) [layer (L3)], said metal compound (M2) being equal to or different from said metal compound (M1). The present invention also pertains to a process for the manufacture of said insulation system and to uses of said insulation system in various applications including aircraft applications.

159. Aircraft hybrid flight control system

Date: 2018-06-19 | ID: 10000275

Abstract: An aircraft hybrid flight control system comprising a manual control element, a mechanical transmission interposed between the manual control element and a control surface, an electromechanical actuator and a coupling unit configured to connect selectively the control surface to the mechanical transmission in a manual control mode and to the electromechanical actuator in a fly-by-wire control mode; the coupling unit is configured to maintain the mechanical transmission in a condition of substantial continuity with said control surface even in fly-by-wire mode, but for a freedom of relative motion of pre-set amplitude.

160. Control method for controlling a buoyancy system for an aircraft, a buoyancy system, and an aircraft

Date: 2018-06-19 | ID: 10000281

Abstract: The present invention relates to a control method for inflating at least one float of a buoyancy system. During a mode (MOD1) of automatic inflation in flight, calculation means determine whether a predetermined ditching condition is true during a step (STP1) of predicting a forthcoming impact. During a step (STP2) of characterizing said impact, at least one predicted component of a ditching speed is determined. During an automatic inflation step (STP3), each float is automatically inflated in flight when at least said ditching condition is true and when each determined predicted component is less than a corresponding speed threshold.

161. Collaborative unmanned aerial vehicle for an inventory system

Date: 2018-06-19 | ID: 10000284

Abstract: The disclosed unmanned aerial vehicle (UAV) includes a buoyant airbag, a drive unit, a retention feature, and an onboard control module that can be configured to cause the drive unit to displace the UAV, cause the retention feature to retain one or more items for transport, and receive instructions to transfer items from one location to another. For example, a UAV can be controlled to obtain an item at one location in a warehouse such as a first floor, lift said item to a second location in the warehouse such as a second floor, and deposit the item at the second location.

162. Methods and systems for detecting and resolving failure events when raising and lowering a payload

Date: 2018-06-19 | ID: 10000285

Abstract: Described herein are methods and systems for detecting and correcting errors when picking up and lowering a payload coupled to a tether of a winch system arranged on an unmanned aerial vehicle (UAV). For example, the winch system may include a motor for winding and unwinding the tether from a spool, and the UAV's control system may control the motor to lower the tether and monitor an electric current supplied to the motor to determine whether a payload has detached from the tether. This process of lowering the tether and monitoring the motor current may be repeated up to a predetermined number of times, at which point the control system may operate the motor to detach the tether from the spool, leaving both the tether and the payload behind.

163. Drop down overhead galley stowage system

Date: 2018-06-19 | ID: 10000287

Abstract: An aircraft overhead stowage system for a cross-aisle galley complex. The aircraft overhead stowage system includes a stowage compartment housing disposed above a ceiling of the galley complex that is supported above the ceiling by a stowage support structure. A first stowage compartment and a second stowage compartment are each movably engaged with and disposed inside the stowage compartment housing, and each stowage compartment is movable between a stowed position and a deployed position relative to the stowage compartment housing using a vacuum system. A vacuum generator that creates a vacuum force is mounted on the stowage compartment housing, and a plurality of vacuum bellows connected to each stowage compartment are in fluid communication with the vacuum generator. The vacuum system causes the stowage compartments to move between the stowed position and the deployed position. Vacuum-driven and manually-driven latching assemblies and removable extensions for each stowage compartment are also provided.

164. Multipurpose lane divider for evacuation slide

Date: 2018-06-19 | ID: 10000292

Abstract: An evacuation system may comprise an evacuation slide and a lane divider. A portion of the lane divider may be detachably coupled to a sliding surface of the evacuation slide. A detachable restraint may be disposed between the lane divider and the evacuation slide. The detachable restrain may comprise a first portion coupled to the lane divider and a second portion coupled to the sliding surface. The first portion of the detachable restraint may detachably couple to the second portion of the detachable restraint.

165. Gas-electric propulsion system for an aircraft

Date: 2018-06-19 | ID: 10000293

Abstract: In one aspect the present subject matter is directed to a gas-electric propulsion system for an aircraft. The system may include a turbofan jet engine, an electric powered boundary layer ingestion fan that is coupled to a fuselage portion of the aircraft aft of the turbofan jet engine, and an electric generator that is electronically coupled to the turbofan jet engine and to the boundary layer ingestion fan. The electric generator converts rotational energy from the turbofan jet engine to electrical energy and provides at least a portion of the electrical energy to the boundary layer ingestion fan. In another aspect of the present subject matter, a method for propelling an aircraft via the gas-electric propulsion system is disclosed.

166. Aircraft fuel tank flammability reduction method and system

Date: 2018-06-19 | ID: 10000294

Abstract: An aircraft fuel tank flammability reduction method includes feeding pressurized air into an air separation module containing a carbon membrane, the air feed exhibiting a normal pressure of no more than 55 psig. The method includes producing nitrogen-enriched air from the air separation module as a result of removing oxygen from the air feed. An aircraft fuel tank flammability reduction system includes a source for pressurized air, an air separation module configured to receive air feed from the pressurized air source, and a carbon membrane. The carbon membrane is configured to permeate oxygen from the air feed through the carbon membrane at a temperature of at least 120° C. (248° F.) and to produce nitrogen-enriched air from the air separation module as a result of removing oxygen from the air feed.

167. Electrical control system

Date: 2018-06-19 | ID: 10000296

Abstract: An example aircraft electrical system includes a generator coupled with a gas turbine engine and a controller operable to distribute power of the generator. The controller includes a first control module positioned at a first location remote from the generator and a second control module positioned at a second location proximate the generator. The first control module is configured to verify at least one output of the generator, detect a fault condition of the generator, and control operation of at least one power bus in communication with the first control module. The second control module is configured to regulate the at least one output of the generator, where the at least one output includes a voltage. An example method of operating an electrical system is also disclosed.

168. Aircraft display systems and methods for generating horizontal situation indicator

graphics with enhanced symbology

Date: 2018-06-19 | ID: 10000297

Abstract: Aircraft display systems for deployment onboard rotorcraft or other aircraft are provided, as are methods carried-out by an aircraft display system. In an embodiment, the aircraft display system includes a controller operably coupled to at least one cockpit display device. The controller is configured to generate a Primary Flight Display (PFD) and Horizontal Situation Indicator (HSI) graphics on the cockpit display device. The controller selectively switches PFD operation between a heading-centered display mode and at least a first non-heading-centered display mode. The HSI graphics are produced to include one or more movable HSI symbols identifying a current aircraft heading when the PFD operates in the first non-heading-centered display mode. In certain embodiments, the controller may also selectively generate visual alerts on the PFD by altering the appearance of the HSI graphics when an angle between the current track and the current heading of the aircraft exceeds an angular threshold.

169. Metrology system for positioning assemblies

Date: 2018-06-19 | ID: 10000298

Abstract: A method and apparatus for maintaining a selected configuration for a structure during a manufacturing process for forming a product using the structure. Metrology data for a support system is received. The support system holds the structure during the manufacturing process. A determination is made as to whether a current configuration of the structure is within selected tolerances of the selected configuration for the structure based on the metrology data. The support system is reconfigured to move the structure into the selected configuration in response to a determination that the current configuration of the structure is not within the selected tolerances of the selected configuration for the structure.

170. Method of forming a stack of cosmetic pads

Date: 2018-06-19 | ID: 10000302

Abstract: A system and method of forming a stack of pads, wherein each of the pads is rotationally askew with respect to its immediate neighbors in the stack. A cutting wheel is provided with cutting forms. The cutting forms are rotated by an offset angle, relative each adjacent cutting form. The cutting wheel is run over material to cut pads. Each of the pads sequentially cut is rotationally offset by the same offset angle as are the cutting forms. As the pads are cut, the pads are sequentially placed into a vertical stack. Each of the pads in the vertical stack is offset from immediately adjacent pads by the offset angle. The pads are formed into shapes that are mostly circular but have recessed areas that create salient points on the pads. The offset angles of each of the pads enables these salient points to be readily grasped.

171. Transporter device and method for conveying objects to be labeled or stamped

Date: 2018-06-19 | ID: 10000307

Abstract: System including a stamping device configured to apply stamps to first and second products having target surfaces. The stamping device applies the stamps when the target surfaces are moved into a stamp-application region. The system also includes a first transporter device having a receiving side. The first transporter device is configured to hold the first products such that the target surfaces of the first products are exposed along the receiving side. The system also includes a second transporter device having a receiving side. The second transporter device is configured to hold the second products such that the target surfaces of the second products are exposed along the receiving side of the second transporter device. The first and second transporter devices are configured to hold the respective first and second products such that the target surfaces of the first and second products face in a generally common direction.

172. Tray system for display, storage and transportation of bottles

Date: 2018-06-19 | ID: 10000321

Abstract: A tray system includes a first tray having a plurality of stacking units. In one embodiment, each stacking unit forms a lower receptacle for receiving a neck portion of a first bottle, and an upper receptacle for receiving a base portion of a second bottle to be stacked above the first bottle. The lower receptacle has a first end, a second end opposite the first end, and a sidewall connecting the first end with the second end. The first end forms an opening for receiving a neck of a second bottle into the lower receptacle. The tray system may also include a second tray and a pallet.

173. Apparatus for retrieving units from a storage system

Date: 2018-06-19 | ID: 10000337

Abstract: A storage system and a load handling device for lifting and moving containers stacked in the storage system are described. The storage system includes a plurality of rails or tracks arranged in a grid pattern above the stacks of containers. The grid pattern can include a plurality of grid spaces and each stack is located within a footprint of only a single grid space. The load handling device is configured to move laterally on the rails or tracks above the stacks. The load-handling device includes a container-receiving space located above the rails or tracks in use and a lifting device arranged to lift a container from a stack into the container-receiving space. The load handling device has a footprint that, in use, occupies only a single grid space in the storage system.

174. Automated system for transporting payloads

Date: 2018-06-19 | ID: 10000338

Abstract: An automated warehouse storage system including a multilevel storage array is provided. Each aisle has a set of storage levels and each level has storage locations distributed along the aisle. The guideway network extending through the multilevel storage array is configured for autonomous vehicles to move along the guideway network within the multilevel storage array. The guideway network including an inter-aisle guideway spanning at least two of the multiple aisles and a set of guideway levels extending in an aisle of the multiple aisles and disposed so that each guideway level is at a different one of the storage levels and the vehicles on the guideway level can access the storage locations distributed along the aisle. Each set of guideway levels is connected to the inter-aisle guideway forming a common guideway path so that a vehicle can move between inter-aisle guideway and each guideway level along the common guideway path.

175. Gravity-fed housing for gasification system

Date: 2018-06-19 | ID: 10000339

Abstract: A gravity-fed housing for use in a gasification system is disclosed. The gravity-fed housing has a receiving end panel that forms a receive opening in a first plane. The receive opening is configured to receive a first plurality of heat carriers via gravity. The gravity-fed housing includes a siding connected to the receiving end panel. The siding forms a chamber and a discharge opening in a second plane that is parallel to the first plane. The discharge opening is offset with respect to the receive opening such that a line perpendicular to the receiving end panel that extends through a center point of the receive opening does not intersect a center point of the second opening. The siding includes a first panel that comprises a guiding surface that intersects the line and is angled toward the discharge opening.

176. Vented bucket

Date: 2018-06-19 | ID: 10000340

Abstract: A vented bucket for use in an endless conveyor system, such as the conveyor belt of a grain elevator or feed elevator, includes two oppositely disposed side panels joined by a rear panel, a bottom panel, and a front panel. At least one vent tube extends along or within one of the rear panel, side panels or front panel in a substantially vertical orientation.

177. Conveyor system and method

Date: 2018-06-19 | ID: 10000341

Abstract: A conveyor system comprising a synchronization unit having a first conveyor belt, a second conveyor belt disposed adjacent to the first conveyor belt, an inlet end and an outlet end. The system further comprises a joint shuttle disposed between the first conveyor belt and the second conveyor belt, each of the first and second conveyor belts having a variable length while the distance between the inlet end and the

outlet end is fixed. A discharge conveyor belt is disposed upstream the inlet end and is operating at a first velocity (VD). At a time T1, the velocity of the first conveyor belt (V1T1) is equal to the velocity of the discharge conveyor belt (VD) and, at a time T2, the velocity of the first conveyor belt (V1T2) is equal to the velocity of the second conveyor belt (Vm), without relative movement between the conveyor belts and objects conveyed thereon.

178. Transporting element for a distributing conveyor of a sorter of a sorting installation

Date: 2018-06-19 | ID: 10000346

Abstract: A transport element for a distributing conveyor of a sorter of a sorting installation of a sorting system for sorting articles includes at least one first transport surface, which can be pivoted on both sides about an axis (tilting axis) in a transport direction of the transport element and is intended for accommodating at least one article which is to be sorted, and at least one second transport surface, which is inclined about an axis (axis of inclination) in the transport direction of the transport element and is intended for accommodating at least one article which is to be sorted. The at least one first transport surface, which can be pivoted on either side, is disposed above the at least one second, inclined transport surface. A distributing conveyor having a plurality of transport elements is also provided.

179. Passive tensioning system for composite material payout control

Date: 2018-06-19 | ID: 10000357

Abstract: A passive tensioning system is disclosed for composite material that is dispensed by a composite placement machine. A spool is mounted on a spool shaft and material on the spool is pulled from the spool and applied to a surface. The tensioning system has a drag brake on the spool shaft and a drag brake control for the drag brake. A dancer roll is mounted on a linear slide having a spring force and a slide control is provided for the linear slide. A control system continually varies the drag brake control and the slide control to control the tension of the composite material based on the instantaneous operating characteristics of the composite placement machine.

180. Rapid deployment frac water transfer system

Date: 2018-06-19 | ID: 10000358

Abstract: A method of and apparatus for the rapid deployment of a fracturing water transferring system, along with the rapid picking up and storage of such system after use. In different embodiments the method in includes the use of a tensioning system to retrieve one or more segments of lay flat hose.

181. Method for operating a lift system

Date: 2018-06-19 | ID: 10000367

Abstract: The invention relates to a method for operating a lift system (19, 20, 21) that has at least two single-post lifts (11, 22-28), each of which comprises a control unit and a load receiving means (15), each control unit having a transmitter and a receiver. The method has the following steps: selecting a specified number of single-post lifts (11, 22-28) in order to form the lift system (19, 20, 21), starting up the single-post lifts (11, 22-28), and configuring the single-post lifts (11, 22-28) so as to form the lift system (19, 20, 21) by establishing a radio connection between the control units of the single-post lifts (11, 22-28) on a radio channel. The lift system (19, 20, 21) is set to a standby mode (29) after the single-post lifts (11, 22-28) are configured or after an actuation process is completed in order to raise or lower the load receiving means (15) of the single-post lifts (11, 22-28), wherein the receiver of each control unit is activated and the transmitter of each control unit is deactivated in the standby mode.

182. Hoist system for retrofitting small scissor lift to access enclosed areas in building structure

Date: 2018-06-19 | ID: 10000368

Abstract: A portable hoist assembly is mounted on a scissor lift. The hoist includes an elongate cable wound on a shaft. The cable has proximate and distal ends. A pulley is mounted on the cable intermediate the proximate and distal ends. In use, the pulley is secured to the ceiling of a building structure.

183. Nano-electromechanical system (NEMS) device structure and method for forming the same

Date: 2018-06-19 | ID: 10000373

Abstract: A NEMS device structure and a method for forming the same are provided. The NEMS device structure includes a substrate and an interconnect structure formed over the substrate. The NEMS device structure includes a dielectric layer formed over the interconnect structure and a beam structure formed in and over the dielectric layer. The beam structure includes a fixed portion and a moveable portion, the fixed portion is extended vertically, and the movable portion is extended horizontally. The NEMS device structure includes a cap structure formed over the dielectric layer and the beam structure and a cavity formed between the beam structure and the cap structure.

184. Systems and methods for growing a non-phase separated group-III nitride semiconductor alloy

Date: 2018-06-19 | ID: 10000381

Abstract: Systems and methods for MBE growing of group-III Nitride alloys, comprising establishing an average reaction temperature range from about 250 C to about 850 C; introducing a nitrogen flux at a nitrogen flow rate; introducing a first metal flux at a first metal flow rate; and periodically stopping and restarting the first metal flux according to a first flow duty cycle. According to another embodiment, the system comprises a nitrogen source that provides nitrogen at a nitrogen flow rate, and, a first metal source comprising a first metal effusion cell that provides a first metal at a first metal flow rate, and a first metal shutter that periodically opens and closes according to a first flow duty cycle to abate and recommence the flow of the first metal from the first metal source. Produced alloys include AlN, InN, GaN, InGaN, and AlInGaN.

185. Post-treatment of a zeolitic material

Date: 2018-06-19 | ID: 10000387

Abstract: A process for the post-treatment of a zeolitic material, the process comprising (i) providing a zeolitic material, wherein the framework structure of the zeolitic material comprises YO2 and X2O3, wherein Y is a tetravalent element and X is a trivalent element; (ii) subjecting the zeolitic material provided in (i) to a method comprising (a) treating the zeolitic material with an aqueous solution having a pH of at most 5, (b) treating the zeolitic material obtained from (a) with a liquid aqueous system having a pH in the range of 5.5 to 8 and a temperature of at least 75° C.; wherein in (ii) and after (b), the zeolitic material is optionally subjected to at least one further treatment according to (a) and/or at least one further treatment according to (b).

186. System and method for controlling frothing during atmospheric leaching of metal sulphides using silicates

Date: 2018-06-19 | ID: 10000389

Abstract: A method of controlling frothing during atmospheric or substantially atmospheric leaching of a metal sulfide is disclosed. In some embodiments, the method may comprise the steps of (a) producing a metal sulfide concentrate via flotation; (b) producing a tailings stream via flotation; and, (c) diverting a portion or all of said produced tailings stream to an atmospheric or substantially atmospheric sulfide leach circuit. A metal recovery flowsheet is also disclosed. In some embodiments, the metal recovery flowsheet may comprise a unit operation comprising: (a) a sulfide concentrator comprising a flotation circuit, the flotation circuit producing a metal sulfide concentrate stream, and a tailings stream; and, (b) an atmospheric or substantially atmospheric metal sulfide leach circuit. The sulfide concentrator may be operatively connected to the atmospheric or substantially atmospheric metal sulfide leach circuit via both of said metal sulfide concentrate stream, and said tailings stream.

187. Compositions for removing hydrocarbons and halogenated hydrocarbons from contaminated environments

Date: 2018-06-19 | ID: 10000394

Abstract: A composition for in situ remediation of soil and groundwater contaminated with hydrocarbons. The composition includes an adsorbent, such as activated carbon, capable of adsorbing the hydrocarbons. The composition also includes a sulfate-containing compound that releases sulfate over a period of time, e.g., a time-release compound that may include calcium sulfate. The composition includes a nutrient system for promoting growth of facultative anaerobes, in the soil or provided in the composition itself. In some embodiments, the nutrient system includes a sulfide scavenging agent such as iron sulfate. In the same or other embodiments, the nutrient system includes at least one of a nitrogen source and a phosphorous source.

188. High-magnesium concentrated liquid and high-magnesium potable-water mixing system

Date: 2018-06-19 | ID: 10000395

Abstract: A high-magnesium concentrated liquid is disclosed. In a first embodiment, the high-magnesium concentrated liquid comprises magnesium ranged from 60000-70000 ppm, sodium ranged from 1000-3200 ppm, potassium ranged from 300-3000 ppm, calcium ranged from 100-300 ppm, and the balance of water. In a second embodiment, the high-magnesium concentrated liquid comprises magnesium ranged from 40000-50000 ppm, sodium ranged from 8000-18000 ppm, potassium ranged from 8000-17000 ppm, calcium ranged from 15-250 ppm, and the balance of water.

189. Dissolution chamber system

Date: 2018-06-19 | ID: 10000396

Abstract: An ozone dissolution chamber utilizes the principle of laminar stratification of gas in a turbulent dissolution chamber. The dissolution chamber is much shorter in height than the conventional tower dissolution chamber, and ensures a high degree of dissolution of ozone in water and, consequently, a high degree of oxidation of organic and metal impurities to a final oxidation state.

190. Multiple attached growth reactor system

Date: 2018-06-19 | ID: 10000397

Abstract: Described herein are attached growth reactor systems which increase nitrifying bacteria biomass through a variety of means during warm weather. As a consequence, the attached growth reactor system contains sufficient nitrifying bacteria biomass to remove ammonia from wastewater in cold to moderate

climates. In one example, there are two attached growth reactors into which wastewater is distributed discontinuously. Specifically, wastewater is transferred to the first attached growth reactor for a first period of time and then is transferred to the second attached growth reactor for a second period of time during warm weather which effectively doubles the nitrifying bacteria biomass in the system. During cold weather, approximately half of the wastewater is applied to each reactor simultaneously.

191. Laundry wash water recycle system

Date: 2018-06-19 | ID: 10000400

Abstract: Laundry wash water recycle system comprising a repressurization pump in fluid communication with a storage tank containing previously used wash water for pumping the used wash water sequentially through a lint filter, a cyclone, and a multi-media filter disposed in sequential series wherein the self-cleaning lint filter in sequential series combination with the cyclone removes insoluble solids with the multi-media filter providing a final filtration for obtaining an output of pressurized double filtered cyclonically processed water. An advanced oxidation combination is introduced into pressurized double filtered cyclonically processed water and mixing occurs for producing a double filtered cyclonically processed advanced oxidation treated water that is communicated to a clean water storage tank for providing on demand delivery to at least one washer and continuous delivery of a feedback flow to the inlet storage tank for providing constant recirculation of treated water through the system.

192. Produced water evaporation system

Date: 2018-06-19 | ID: 10000401

Abstract: In accordance with the present invention, problems related to produced water management are addressed. The proposed produced water evaporation system incorporates several simple components in a closed system to achieve a safe and effective produced water reduction alternative that can be efficient and sustainable on active natural gas well pads.

193. Producing algal biomass and products from organic solid material

Date: 2018-06-19 | ID: 10000402

Abstract: A method for treating solid organic materials includes providing phagotrophic algae, providing solid organic material, combining the algae and the solid organic material, allowing the algae to grow by engulfing or uptaking the solid organic material, forming an algal product, and collecting the algal product. The method can also include a pretreatment step. The solid organic material can be waste activated sludge. A system for treating and disposing solid organic material is also provided.

194. Power supply system and connector

Date: 2018-06-19 | ID: 10000503

Abstract: A power supply system and a connector, which can suppress occurrence of crosstalk between a power supply wire, and a control wire and an earth wire in a charging cable that includes the power supply wire, the control wire and the earth wire at the time of connecting a power supplying device with a vehicle having a power storage device to be supplied with power from the power supplying device via the power supply wire and the earth wire to be used for supplying power and the control wire for transmitting a control signal to be used for power supply control of the power storage device, are provided. The ratio of the winding number of a primary coil connected with at least one of the control wire and the earth wire to the winding number of a secondary coil connected with a communication unit that sends and receives a communication signal is set at 1/N (N>1) in a system which satisfies VnC>VnL or is set at N (N>1) in a system which satisfies VnC<VnL.

195. Template-fixed peptidomimetics

Date: 2018-06-19 | ID: 10000535

Abstract: Template-fixed -hairpin peptidomimetics of the general formula wherein Z is a template-fixed chain of 4 -amino acid residues which, depending on their positions in the chain (counted starting from the N-terminal amino acid) are Gly, or of certain types which, as the remaining symbols in the above formula, are defined in the description and the claims, and salts thereof, have the property to agonize or to antagonize GPCR receptors such as CXCR3, urotensin and CCR10. They can be used as medicaments to treat or prevent diseases such as cardiovascular disorders, dermatological disorders, endocrine system and hormone disorders, metabolic diseases, inflammatory diseases, neurological diseases, respiratory diseases, haematological diseases and cancer. These -hairpin peptidomimetics can be manufactured by a process which is based on a mixed solid- and solution phase synthetic strategy.

196. High performance Ziegler-Natta catalyst systems, process for producing such supported catalysts and use thereof

Date: 2018-06-19 | ID: 10000589

Abstract: A method for making a solid catalyst component for use in a Ziegler-Natta catalyst includes combining in a hydrocarbon solvent a porous particulate support with a hydrocarbon soluble organomagnesium compound to form a suspension. The organomagnesium compound is halogenated followed by addition of an alcohol and the mixture is then reacted with a titanium compound followed by a reaction with at least one diether compound to form the solid catalyst component. Afterwards the reaction

product is extracted with a mixture of a titanium compound and a hydrocarbon solvent. The solid catalyst component recovered is combined with an aluminum cocatalyst to form a Ziegler-Natta catalyst system for the polymerization of olefins. In particular, the catalyst system including a diether internal electron donor may have an activity and hydrogen response suitable for the production of propylene polymers having a molecular weight distribution (PI(GPC)) in the range from about 5.75 to about 9.

197. Catalyst system for polymerization of an olefin

Date: 2018-06-19 | ID: 10000591

Abstract: A process for the preparation of a catalyst system for olefin polymerization, including: A) providing said procatalyst obtainable via a process comprising: i) contacting a compound R4zMgX42-z with an alkoxy- or aryloxy-containing silane compound to give a first intermediate reaction product, ii) optionally contacting the solid product obtained in step i) with at least one activating compound selected from an activating electron donor or metal alkoxide compound; iii) contacting the first or second intermediate reaction product, with a halogen-containing Ti-compound and optionally an internal electron donor to obtain the procatalyst; and B) contacting the procatalyst with a co-catalyst and at least diethylaminotriethoxysilane as the external donor. Further disclosed is a catalyst system obtained by the process; a process for preparing a polyolefin by contacting at least one olefin with the catalyst system; a polyolefin obtained thereby; a composition comprising a propylene-ethylene copolymer; a shaped article thereof; and use of the polyolefin.

198. Supported Salan catalysts

Date: 2018-06-19 | ID: 10000593

Abstract: A catalyst system including the reaction product of a fluorided support, an activator, and at least a first transition metal catalyst compound; methods of making such catalyst systems, polymerization processes using such catalyst systems, and polymers made therefrom.

199. Dual catalyst system for producing LLDPE copolymers with a narrow molecular weight distribution and improved processability

Date: 2018-06-19 | ID: 10000594

Abstract: Disclosed herein are ethylene-based polymers generally characterized by a Mw ranging from 70,000 to 200,000 g/mol, a ratio of Mz/Mw ranging from 1.8 to 20, an IB parameter ranging from 0.92 to 1.05, and an ATREF profile characterized by one large peak. These polymers have the dart impact, tear strength, and optical properties of a metallocene-catalyzed LLDPE, but with improved processability, melt strength, and bubble stability, and can be used in blown film and other end-use applications.

200. Weatherable sheet for solar cell module, product obtained using the sheet, and process for producing the weatherable sheet for solar cell module

Date: 2018-06-19 | ID: 10000616

Abstract: The present invention provides a weather-resistant sheet for a solar cell module, which has better adhesion to a water impermeable sheet, better blocking resistance against the water impermeable sheet, and better adhesion to EVA that is a sealant; a weather-resistant sheet for a solar cell module in which a cured coating film layer thereof can suppress UV transmission significantly; a product including the sheet; and a process for producing the sheet. The weather-resistant sheet for a solar cell module includes, on a water impermeable sheet, a cured coating film layer made of a crosslinked product of a coating composition that includes a hydroxyl group-containing fluoropolymer, wherein in a pressure-resistance test performed when a crosslinking degree of the cured coating film layer is 80 to 99%, the cured coating film layer and the water impermeable sheet without a cured coating film layer formed thereon are not adhered to each other after a load has been applied to the cured coating film layer and the water impermeable sheet being stacked.