ORIGINAL

मूल/No : 138096

सत्यमेव जयते

भारत सरकार
GOVERNMENT OF INDIA
पेटेंट कार्यालय
THE PATENT OFFICE
डिजाइन के पंजीकरण का प्रमाणपत्र
CERTIFICATE OF REGISTRATION OF DESIGN

डिजाइन सं. / Design No.	:	380801-001
तारीख / Date	:	04/03/2023
पारस्परिकता तारीख / Reciprocity Date*	:	
देश / Country	:	

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **FLOATING SOLAR PHOTOVOLTAIC CELL** से संबंधित है, का पंजीकरण, श्रेणी **13-04** में 1.Prof.Poulomi Chatterjee 2. Prof.Amit Kumar 3.Prof.Debasis Chatterjee 4.Prof.Susovan Dutta 5.Dr.Alivarani Mohapatra 6.Dr.Debani Prasad Mishra 7.Dr.Siba Prasad Mishra 8.Dr.Prangya Parimita Pradhan 9.Dr.Nimay Chandra Giri के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class **13-04** in respect of the application of such design to **FLOATING SOLAR PHOTOVOLTAIC CELL** in the name of 1.Prof.Poulomi Chatterjee 2. Prof.Amit Kumar 3.Prof.Debasis Chatterjee 4.Prof.Susovan Dutta 5.Dr.Alivarani Mohapatra 6.Dr.Debani Prasad Mishra 7.Dr.Siba Prasad Mishra 8.Dr.Prangya Parimita Pradhan 9.Dr.Nimay Chandra Giri.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।

In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

निर्गमन की तारीख/Date of Issue : 25/05/2023

महानियंत्रक पेटेंट डिजाइन और व्यापार चिह्न
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ORIGINAL

मूल/No : 136484

सत्यमेव जयते

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पेटेंट कार्यालय
THE PATENT OFFICE
डिजाइन के पंजीकरण का प्रमाणपत्र
CERTIFICATE OF REGISTRATION OF DESIGN

डिजाइन सं. / Design No.	:	380508-001
तारीख / Date	:	01/03/2023
पारस्परिकता तारीख / Reciprocity Date*	:	
देश / Country	:	

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **SOLAR BIOMASS INTEGRATED CROP DRYER** से संबंधित है, का पंजीकरण, श्रेणी **15-03** में 1.Prof. Poulomi Chatterjee 2. Prof. Amit Kumar 3.Prof. Susovan Dutta 4.Dr. Susmita Das 5.Ar. Teesha Majumder 6.Dr. Sanjeeta Biswas 7.Dr. Devegowda S R 8.Prof. Prasheet Mishra 9.Dr.Nimay Chandra Giri के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class **15-03** in respect of the application of such design to **SOLAR BIOMASS INTEGRATED CROP DRYER** in the name of 1.Prof. Poulomi Chatterjee 2. Prof. Amit Kumar 3.Prof. Susovan Dutta 4.Dr. Susmita Das 5.Ar. Teesha Majumder 6.Dr. Sanjeeta Biswas 7.Dr. Devegowda S R 8.Prof. Prasheet Mishra 9.Dr.Nimay Chandra Giri.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।

In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

निर्गमन की तारीख/Date of Issue : 18/05/2023

महानियंत्रक पेटेंट डिजाइन और व्यापार चिह्न
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पारस्परिकता तारीख (यदि कोई हो) जिसकी अनुमति देश के नाम पर की गई है। डिजाइन का सत्त्वाधिकार पंजीकरण की तारीख से दस वर्षों के लिए होगा जिसका विस्तार, अधिनियम एवं नियम के निबंधनों के अधीन, पाँच वर्षों की अतिरिक्त अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का उपयोग विधिक कार्यवाहियों अथवा विदेश में पंजीकरण प्राप्त करने के लिए नहीं हो सकता है।

*The reciprocity date (if any) which has been allowed and the name of the country.Copyright in the design will subsist for ten years from the date of Registration, and may under the terms of the Act and Rules, be extended for a further period of five years.This Certificate is not for use in legal proceedings or for obtaining registration abroad.

ORIGINAL

मूल/No : 125659

सत्यमेव जयते

भारत सरकार
GOVERNMENT OF INDIA
पेटेंट कार्यालय
THE PATENT OFFICE
डिजाइन के पंजीकरण का प्रमाणपत्र
CERTIFICATE OF REGISTRATION OF DESIGN

डिजाइन सं. / Design No.	:	373904-001
तारीख / Date	:	10/11/2022
पारस्परिकता तारीख / Reciprocity Date*	:	
देश / Country	:	

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **OCEAN DEPTH MEASURING DEVICE** से संबंधित है, का पंजीकरण, श्रेणी **10-04** में 1.Guru Nanak Institute Of Technology 2. Tridib Chakraborty 3.Dr. Sunipa Roy 4.Dr. Debasree Saha 5.Palasri Dhar 6.Dr. Santanu Kr. Sen के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class **10-04** in respect of the application of such design to **OCEAN DEPTH MEASURING DEVICE** in the name of 1.Guru Nanak Institute Of Technology 2. Tridib Chakraborty 3.Dr. Sunipa Roy 4.Dr. Debasree Saha 5.Palasri Dhar 6.Dr. Santanu Kr. Sen.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।

In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

निर्गमन की तारीख/Date of Issue : 17/01/2023

महानियंत्रक पेटेंट डिजाइन और व्यापार चिह्न
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ORIGINAL

मूल/No : 128159

सत्यमेव जयते

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पेटेंट कार्यालय
THE PATENT OFFICE
डिजाइन के पंजीकरण का प्रमाणपत्र
CERTIFICATE OF REGISTRATION OF DESIGN

डिजाइन सं. / Design No.	:	373905-001
तारीख / Date	:	10/11/2022
पारस्परिकता तारीख / Reciprocity Date*	:	
देश / Country	:	

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **DEVICE FOR MEASURING SKIN PIGMENT LEVEL** से संबंधित है, का पंजीकरण, श्रेणी **24-02** में 1.Guru Nanak Institute Of Technology 2. Dr. Soumik Podder 3.Dr. Sreyasree Basu 4.Susovan Dutta 5.Suparna Maity 6.Dr. Santanu Kr. Sen के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class **24-02** in respect of the application of such design to **DEVICE FOR MEASURING SKIN PIGMENT LEVEL** in the name of 1.Guru Nanak Institute Of Technology 2. Dr. Soumik Podder 3.Dr. Sreyasree Basu 4.Susovan Dutta 5.Suparna Maity 6.Dr. Santanu Kr. Sen.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।

In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

निर्गमन की तारीख/Date of Issue : 01/02/2023

महानियंत्रक पेटेंट डिजाइन और व्यापार चिह्न
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पारस्परिकता तारीख (यदि कोई हो) जिसकी अनुमति देश के नाम पर की गई है। डिजाइन का सत्त्वाधिकार पंजीकरण की तारीख से दस वर्षों के लिए होगा जिसका विस्तार, अधिनियम एवं नियम के निबंधनों के अधीन, पाँच वर्षों की अतिरिक्त अवधि के लिए किया जा सकेगा। इस प्रमाण पत्र का उपयोग विधिक कार्यवाहियों अथवा विदेश में पंजीकरण प्राप्त करने के लिए नहीं हो सकता है।

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ORIGINAL

मूल/No : 124328

सत्यमेव जयते

भारत सरकार
GOVERNMENT OF INDIA
पेटेंट कार्यालय
THE PATENT OFFICE
डिजाइन के पंजीकरण का प्रमाणपत्र
CERTIFICATE OF REGISTRATION OF DESIGN

डिजाइन सं. / Design No.	:	373906-001
तारीख / Date	:	10/11/2022
पारस्परिकता तारीख / Reciprocity Date*	:	
देश / Country	:	

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **LASER LIGHT TOY FOR CATS** से संबंधित है, का पंजीकरण, श्रेणी **30-12** में 1.Guru Nanak Institute Of Technology 2. Sourish Mitra 3.Anurima Majumder 4.Pallabi Das 5.Dr. Santanu Kr. Sen के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class **30-12** in respect of the application of such design to **LASER LIGHT TOY FOR CATS** in the name of 1.Guru Nanak Institute Of Technology 2. Sourish Mitra 3.Anurima Majumder 4.Pallabi Das 5.Dr. Santanu Kr. Sen.

डिजाइन अधिनियम, 2000 तथा डिजाइन नियम, 2001 के अध्यधीन प्रावधानों के अनुसरण में।

In pursuance of and subject to the provisions of the Designs Act, 2000 and the Designs Rules, 2001.

निर्गमन की तारीख/Date of Issue : 10/01/2023

महानियंत्रक पेटेंट डिजाइन और व्यापार चिह्न
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(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :26/06/2023

(21) Application No.202331042568 A
(43) Publication Date : 30/06/2023

(54) Title of the invention : AN IoT BASED SMART HEATHCARE SYSTEM AND A METHOD THEREOF

(51) International classification :G06Q 500200, G16H 800000, H04L 090600, H04L 093000, H04L 671200
(86) International Application No :PCT// /
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
A method and smart system (100) for providing a patient rapid assistance at a pre-treatment stage is disclosed. A non-invasive blood-detection unit (104) to determine blood-group-type a plurality of donor and a patient and transmits thereof to an HAS System (102). An image capturing unit (110) of the system captures facial images of the plurality of donors and the patient and transmits thereof to the HAS system. A face recognition module (118) of the system verifies a potential-living-donor by analyzing an instant-facial-image of the potential-living-donor with history of facial-images stored in a data-repository. A data mapping module (218) of the system provide one or more suitable match of blood-group of a donor with the patient. A voice-module of the system used for navigating towards a desired location.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/11/2022

(21) Application No.202231065670 A
(43) Publication Date : 18/11/2022

(54) Title of the invention : AUTOMATIC LEAFY VEGETABLE PROCESSING DEVICE

(51) International classification	:A23N0012020000, G06F0003042000, A23L0019000000, A23B0007040000, B66B0001240000
(86) International Application No Filing Date	:PCT// :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

(71)**Name of Applicant :**
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(57) Abstract :
An automatic leafy vegetable processing device, comprising a circular bowl 1 placed with leafy vegetables to be washed and cleaned, a touch interactive display panel 2 installed on bowl 1 for taking user input regarding vegetables chopping type, a semicircular member 3 mounted with a carved with a slot, configured on bowl 1 wherein a vertical rod 4 constructed with a rack mounted through slot for providing rotation to bowl 1 while moving rod 4 in upward and downward motion, multiple blades 5 mounted underneath rod 4 by means of motorized slider for chopping vegetables in user-desired manner, a direct current motor paired with a driving gear for rotating driving gear to chop vegetables via a blades 5, an artificial intelligence enabled image capturing module 6 detects complete chopping of vegetables, and multiple iris pores 7 constructed within bowl 1 for allowing drainage of water out from the bowl 1.

No. of Pages : 14 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/11/2022

(21) Application No.202231065671 A
(43) Publication Date : 18/11/2022

(54) Title of the invention : CORK MANUFACTURING DEVICE

(51) International classification :B27J0005000000, B25J0015100000, B25J0015020000, G03F0007000000, B25J0015000000
(86) International Application No :PCT// /
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
A cork manufacturing device a housing 1 with a touch interactive display panel 2 to input details regarding type of imprinting, size and number of corks, a chamber 3 for storing multiple wooden pieces, a robotic gripper 4 for gripping a piece of wooden pieces from the chamber 3 in order to position the gripped wooden, a holding unit 5 for positioning the gripped, multiple pneumatically operated pusher 6 with a motorized circular blade 7 for cutting the wooden pieces in a user-specified size, a sliding unit 8 for providing sliding movement to pusher 6 and an artificial intelligence based image capturing module 9 for capturing images of inner surroundings of housing 1, a weight sensor for detecting presence of positioned cork and a telescopically operated blocks 10 for extending to imprint a user-specified pattern on the cork.

No. of Pages : 14 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/11/2022

(21) Application No.202231065672 A
(43) Publication Date : 18/11/2022

(54) Title of the invention : AUTOMATED FIRE SAFETY SYSTEM

(51) International classification :H04N0005225000, G08B0025000000, F04C0015000000, F16M0013020000, A61B0008120000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
(62) Divisional to Application Number :NA Filing Date :NA

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(57) Abstract :
An automated fire safety system comprising, a body 1 having a first and second portion 2, 3 arranged with multiple suction-cups 4 for adhering the body 1 to a building, multiple sliders 5 mapped with the first-portion 2 to translate the body 1 along the building, an image-capturing module 6 positioned over the body 1 for watching real-time images/videos of building, an audio-unit 7 mapped at the second-portion 3 for providing voice-commands to person stuck in the fire, a lid 8 crafted at the first-portion 2 to allow the person to stand over the lid 8, a weight sensor fabricated over the lid 8 for detecting person's weight, a conduit 9 connected with the lid 8 for passage of the person, a pump integrated to each sections for allowing passage of the person, a suction-unit integrated within each sections to prevent collision between the persons.

No. of Pages : 14 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/11/2022

(21) Application No.202231065673 A
(43) Publication Date : 18/11/2022

(54) Title of the invention : SNOWBOARD RIDING TRAINING DEVICE

(51) International classification :H04N0021810000, A61B0005000000, H04N0019105000, A42B0003300000, A61H0001020000
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
A snowboard riding training device consisting a frame 1 having first and second portions 2, 3, a snowboard 4 attached over first portion 2 of frame 1, an artificial intelligence based image capturing module 6 mounted over second portion 3 of frame 1 for capturing pictures, pneumatically operated rod 5 attached with snowboard 4 with first ball and socket joint 7 for providing motion to snowboard 4, spring 8 installed between joint 7 and rod 5 for compression/ decompression of board 4, virtual reality headwear 9 worn by user for path determining, couple of telescopic bars 10 via second ball and socket joint 11 attached to the frame 1 which user clasps to move 4 in desired direction, plurality of clamps 12 attached to the frame 1 grips users foot in order to prevent user from falling, FBG sensor 13 installed over frame 1 to determine vital parameters of user.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :12/11/2022

(21) Application No.202231064959 A
(43) Publication Date : 18/11/2022

(54) Title of the invention : AUTOMATED WATER RESCUE DEVICE

(51) International classification :B63C0009180000, G08B0021020000, B63C0009080000, B63C0009020000, B63C0009000000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
(62) Divisional to Application Number :NA Filing Date :NA

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(57) Abstract :
An automated water rescue device includes a body 1 placed on water surface and installed with an image capturing module 2 works together with an ultrasonic sensor for detecting location of a user drowning in body's proximity, multiple rings 3 arranged in body 1 via a slider 4 that aligns one ring 3 towards user through an opening 5, a pusher 6 for directing inflatable bags 12 inside a launcher 7 that propels bags 12 towards user, an inflating module 13 equipped with an electronically controlled valve 14 for releasing an inflation solution to inflate bags 12 to rescue user, a hot-air balloon 8 installed via a roller 9 such that upon inflation of bags 12 the microcontroller via a hot-air pump to fill hot-air in balloon 8 to lift balloon 8 away from surface to generate an emergency alert and seeking help from concerned authorities to rescue user.

No. of Pages : 15 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/11/2022

(21) Application No.202231065665 A
(43) Publication Date : 18/11/2022

(54) Title of the invention : SUSTAINABLE TEMPERATURE MAINTAINING FOOD DELIVERY DEVICE

(51) International classification :F25D0029000000, A47J0047140000, G06Q0050120000, A45C0011200000, G06Q0010080000
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :
The present invention relates to a sustainable temperature maintaining food delivery device, comprises of a body 1 mounted over carrier of two-wheeler linked with a silencer 2 that is installed on two-wheeler, the silencer 2 integrated with perforated tube 3 surrounded by fibrous glass sheet 4 for receiving hot exhaust gases from engine of two-wheeler, pair of copper coiling 5 configured on tube 3 for maintaining temperature of a hot food stored in the box arranged within the body 1, a chamber 7 integrated within the body 1 for maintaining temperature of hot food stored within the box when two-wheeler is not moving, a container 8 arranged within the body 1 for maintaining temperature of cold food items stored within container 8, an air compressor 10 crafted on body 1 for extracting air from surrounding and maintaining temperature of cold food item stored within the container 8.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/11/2022

(21) Application No.202231065666 A
(43) Publication Date : 18/11/2022

(54) Title of the invention : AUTOMATED VEHICLE LOADING DEVICE

(51) International classification :B65G0067080000, G01N0021880000, B60P0003080000, G06F0003042000, B23K0009020000
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
An automated vehicle loading device comprises of a frame 1 installed over carriage of a trailer truck parked in a yard into which vehicles are to be loaded, a touch interactive display panel 2 mounted on frame 1 for taking user input regarding number of vehicles that are to be loaded, an artificial intelligence based image capturing module 3 mounted over frame 1 for detecting location of vehicles within yard, three platforms 5 assembled on frame 1 to accommodate vehicles, a conveyor belt 4 attached with frame 1 for translating parked vehicles on platform 5, multiple motorized rollers 6 fabricated over platforms 5 for providing movement to loaded vehicles towards an end portion of platforms 5, and a sheet 8 configured with an electromagnetic strip mounted on frame 1 for covering vehicles after successful loading to prevent from dust/dirt.

No. of Pages : 18 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/11/2022

(21) Application No.202231065667 A
(43) Publication Date : 18/11/2022

(54) Title of the invention : CLIMBING TRAINING DEVICE

(51) International classification :A63B0071060000, B66F0011040000, A01K0015020000, H04B0001382700, E21D0023040000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
(62) Divisional to Application Number :NA Filing Date :NA

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(57) Abstract :
A climbing training device comprises of a lemniscate shaped platform 1 fabricated with stretchable fabric 2 placed over ground, multiple telescopic rods 3 mapped on the ground surface to lift the platform 1, a pneumatically powered ladder 4 attached side to the platform 1 that extend and retract and allow user to reach to platform 1, a touch enabled display panel 5 mounted over the platform 1 to allow user to enter details regarding shape of surface over which user want to climb, a multiple of motorized rollers wrapped with multiple ropes 6 and each ropes 6 is paired with fabric 2, a harness 7 attached with the telescopic bar mapped over platform 1 through, an artificial intelligence module 9 mounted over platform 1 to capture multiple images of user for monitoring training session of user.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/11/2022

(21) Application No.202231065668 A
(43) Publication Date : 18/11/2022

(54) Title of the invention : DISCUS THROW TRAINING SYSTEM

(51) International classification :G06F0003010000, A63B0071060000, H04N0005225000, A63B0024000000, H04R0005040000
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
A discus throw training system, comprising a frame 1 having a first and second portion 2, 3 a virtual-reality headset 4 paired with the system for watching virtual-reality of discus throw, a disc 5 configured over a slider 6 positioned at first-portion 2 for allowing the user to throw/move disc 5 over the slider 6, a display-panel 7 mapped over the frame 1 for selecting difficulty level, a gripper 8 secured at first-portion 2 for increasing weight of the disc 5, a robotic arm 9 configured at second-portion 3 to be worn by the user for receiving training, an image-capturing module 10 positioned over second-portion 3 for analyzing user's posture, an audio unit 11 integrated to the frame 1 for notifying correct body-posture and multiple sensors fabricated over the disc 5 for determining impact experienced by the disc 5 and motion of the disc 5 over the slider 6.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/11/2022

(21) Application No.202231065669 A
(43) Publication Date : 18/11/2022

(54) Title of the invention : MULTIFUNCTIONAL AMUSEMENT DEVICE

(51) International classification :B60N0002020000, G02B0027010000, H04N0005225000, B60N0002060000, G06F0003010000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
(62) Divisional to Application Number :NA Filing Date :NA

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(57) Abstract :
A multifunctional amusement device , comprises of a frame 1 installed over a ground surface and mounted with a display panel 2 to provide input regarding type of swinging ride, a pole 3 configured within the frame 1 and erected with multiple number of sliding rails 4 that coupled with a seat 5 in order to accommodate the user, an artificial intelligence (AI) based imaging unit 6 mounted on apex portion of the pole 3 to capture multiple images of the user, a motorized slider 7 placed on each of the sliding rails 4, positioned underneath the seats 5 for moving the seat 5 along the rail 4 in a primary and secondary direction and a planetary gear arrangement 8 assembled on pole 3 and configured with multiple number of electromagnetic clamps 9 positioned in alignment with each of sliding rails 4 to provide swinging experience to user.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/11/2022

(21) Application No.202231065674 A
(43) Publication Date : 18/11/2022

(54) Title of the invention : DISASTER DAMAGE PREVENTION DEVICE

(51) International classification :A61G0007050000, G08B0003100000, G02F0001133570, G10L0015220000, A61G0005100000
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :
A disaster damage prevention device, comprises a body fixed on a street pole 1, a pair of flaps 2 connected with body via a motorized hinge 3 for forming a box shape structure, a seismometers sensor for determining vibration happened due to intensity of disaster condition, an audio unit 11 for providing audio commands to persons, an image capturing module 4 for capturing images of surroundings, multiple telescopic bars 5 for extending up to an end of frame 6, a pair of fabric layers 7 for covering frame 6, multiple electromagnets for allowing flow of charges within an electromagnet fluid to harden covering of frame 6, a light detection sensor and light emitting diode for detecting intensity of light and illuminating area inside frame 6, multiple flat members 8 connected with each side of frame 6 via multiple motorized hinges for allowing person(s) to sit.

No. of Pages : 17 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :19/07/2022

(21) Application No.202231041407 A
(43) Publication Date : 05/08/2022

(54) Title of the invention : ASSISTIVE CONCENTRATION IMPROVING DEVICE

(51) International classification :A63B0069000000, A63B0024000000, H05K0007180000, A63B0022020000, A63B0071000000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
(62) Divisional to Application Number :NA Filing Date :NA

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(57) Abstract :
The present invention relates to an assistive concentration improving device comprising a frame 1 installed over a ground surface, at least two pairs of pneumatically operated bars 2 attached horizontally for user to walk, a display panel 3 mounted on the frame 1 to provide input, an artificial intelligence (AI) based imaging unit 4 installed on the frame 1 to detect the frame, plurality of linear actuators 10 is configured to provide path between the bars 2, a laser projector 5 attached on the frame 1 to project path, plurality of hinge joints 6 installed at point of attachment of the bars 2 to aid in tilting the bars 2, multiple electromagnetically powered C-shaped clamps 7 installed on the bars 2 via motorized sliders 8 to aid user in climbing and an inflating unit 9 that is actuated by the microcontroller to prevent any chances of injury for the user.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :08/11/2022

(21) Application No.202231063661 A
(43) Publication Date : 11/11/2022

(54) Title of the invention : CONVERTIBLE DEVICE FOR CARRYING INDIVIDUAL(S)

(51) International classification :A61G0005100000, G06Q0030020000, G02F0001133300, G06F0001160000, H01L0021480000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
(62) Divisional to Application Number :NA Filing Date :NA

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(57) Abstract :
A convertible device for carrying individual(s)comprises of a frame 1 having a first and second portion 2, 3 to be gripped by users, a platform 4 mapped to the frame 1 for allowing an individual to lay, an ultrasonic-sensor fabricated on the frame 1 for detecting height of the frame 1 from surface, a set of poles 5 assembled with springs 6 is configured to the frame 1 for absorbing shock, a display panel 7 mounted on the frame 1 for entering input regarding utilizing the frame 1 as a wheel-chair, a pivot-joint embedded within the frame 1 and platform 4 for aligning the first and second portion 2, 3 perpendicularly, a pair of primary wheels 8 arranged at the second-portion 3 for supporting front-end of the wheel-chair and a pair of secondary wheels 9 attached with the platform 4 for supporting rear-end of the wheel-chair.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :08/11/2022

(21) Application No.202231063662 A
(43) Publication Date : 11/11/2022

(54) Title of the invention : AUTOMATED MUD POT PROCESSING DEVICE

(51) International classification :H01L0021670000, G06F0009540000, A01K0005020000, B65D0083040000, B08B0003040000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
(62) Divisional to Application Number :NA Filing Date :NA

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(57) Abstract :
An automated mud pot processing device includes a housing 1 comprises of a chamber 2, a touch screen 3 to allow the user to enter details regarding shape of pot, an electronic valve 4 installed within container 5 dispense water, a stirring unit 6 to stir soil, clay and water to form paste, an artificial intelligence module 7 to capture images of surrounding of housing 1, a primary motorized iris lid 8 to dispense paste over a sieve 9 that is passed within a receptacle 10, a telescopic pusher 11 compressed paste that remove air pressure, a waste chamber 12 that collect stone after filtration, a secondary motorized lid 13 to transfer paste over rotatable platform 14 that rotate paste, a multiple members 15 that provide shape to paste, and a motorized pulley 16 wrapped with thread via slider provide motion to thread to separate pot from platform 14.

No. of Pages : 15 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :08/11/2022

(21) Application No.202231063663 A
(43) Publication Date : 11/11/2022

(54) Title of the invention : AUTOMATED TURF MANUFACTURING DEVICE

(51) International classification :E02D0017200000, E01C0013080000, A01G0020000000, A01G0020200000, C05F0011000000
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
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(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
An automated turf manufacturing device, comprising a display panel 2 mounted on the housing 1 for providing input regarding soils and grass along with dimensions of turf, an imaging unit 3 mounted within housing 1 for capturing images of the housing 1, a two-axis lead screw 4 fabricated with housing 1 and integrated with plates 5 to get position corresponding to determined coordinates and extends till base for partitioning base up to the fed user-input dimension, chambers 6 stored with soils configured with nozzle arranged on screw 4 for dispensing soil on the base to prepare layer of soil, containers 8 storing seeds with lid 9 positioned on screw 4 for dispersing seed of grass on soil layer to plant the seeds, nurturing unit 10 installed on screw 4 for providing artificial conditions to the growth of seeds, roller 12 arranged on screw 4 to coil turf over roller 12.

No. of Pages : 18 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :08/11/2022

(21) Application No.202231063664 A
(43) Publication Date : 11/11/2022

(54) Title of the invention : BIRD PERCHING DEVICE

(51) International classification	:A61F0013495000, A01M0029320000, A01K0005010000, B41J0002045000, B42D0015020000
(86) International Application No Filing Date	:PCT// :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :
A bird perching device comprising a body 1 arranged with multiple suction cups 2 for adhering the body 1, an imaging unit 3 to determine presence of a bird, a sound module 4 to produce sound waves, a pair of chambers 5 to store food and water, a mesh 6 for receiving fecal material, an electronically controlled nozzle 7 for discharging pressurized water over the mesh 6, a curved flap 8 for protecting the bird from rain and a motorized circular slider to translate the flap 8.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :08/11/2022

(21) Application No.202231063665 A
(43) Publication Date : 11/11/2022

(54) Title of the invention : WEARABLE HYGIENE MAINTENANCE DEVICE

(51) International classification :B41J0002165000, H01L0021660000, G03B0017560000, A47L0011400000, A61F0013150000
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
The present invention relates to a wearable hygiene maintenance device, comprising a wearable body 1 developed to be equipped by a user on a neck portion, a motorized sliding arrangement 2 for providing movement to the body 1 in a manner to tighten or loosen the body 1, plurality of moisture sensors for detecting a moisture level on the neck portion, primary electronic nozzle 3 coupled with a multi-sectioned chamber 4 for dispensing a fragrance solution on the neck portion, an imaging unit 5 for capturing images of the neck portion, a secondary electronic nozzle stored with an antihistamine solution for dispensing the solution on the neck portion, a roller arrangement for rolling and unrolling on the neck portion and a motorized sliding unit for providing movement to the roller on the neck portion to perform cleaning of the accumulated wax.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :12/11/2022

(21) Application No.202231064955 A
(43) Publication Date : 18/11/2022

(54) Title of the invention : KNEADING ASSISTIVE DEVICE

(51) International classification :A21D0002360000, A21C0001020000, A23L0007109000, A21C0001140000, A21D0013066000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
(62) Divisional to Application Number :NA Filing Date :NA

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(57) Abstract :
A kneading assistive device includes a body 1 for storing flour to be kneaded to prepare dough, a weight sensor 2 for detecting flour's weight added by user in body 1, a computing unit 3 for inputting commands for flour type to be kneaded and degree of softness of dough to be prepared, a nozzle 4 connected to a chamber 5 stored with water for dispensing decoded amount of water in body 1 for mixing water with flour to obtain dough, an image capturing module 6 for capturing flour's images and upon capturing images microcontroller activates a laser emitter 7 for projecting laser beam in flour's mixture if, microcontroller via module 6 detects lumps in flour to enable user to knead dough appropriately, a tactile sensor for detecting flour's softness, a speaker 8 for notifying user to stop further kneading if, detected softness of dough matches with user-defined softness.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :12/11/2022

(21) Application No.202231064956 A
(43) Publication Date : 18/11/2022

(54) Title of the invention : ASSISTIVE CUTTING AND DIGGING DEVICE

(51) International classification :A61B0005000000, A61B0005020500, A61B0005024000, A61B0005145500, H02J0050100000
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
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(62) Divisional to Application Number :NA
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(57) Abstract :
An assistive cutting and digging device includes a wearable body 1 worn over user's wrist portion, multiple hollow cylindrical members 2 for accommodating user's fingers, a display panel 3 linked with a microcontroller and accessed by user for inputting details regarding type of operation to be performed by user, a handle 4 gripped by user for performing digging of soil present on a ground surface by utilizing a claw 5 attached on members 2, if user selects digging operation via panels 3, multiple telescopically operated blades 6 installed on claw's 5 end such that upon selection of cutting operation from panel 3, the microcontroller actuates blades 6 to provide a means for cutting operation, an FBG (fiber Bragg) sensor for determining vital parameters of user and upon detection of inappropriate vitals, microcontroller actuates a hinge 7 to provide an oscillating movement to claw 5 for appropriate digging of soil.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :12/11/2022

(21) Application No.202231064957 A
(43) Publication Date : 18/11/2022

(54) Title of the invention : DEVICE FOR JOINING REINFORCING BARS

(51) International classification :G06F0001160000, H04N0021422000, G06F0003042000, G08B0021240000, G08B0029180000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
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(57) Abstract :
A device for joining reinforcing bars, comprising of a body 1 configured with a touch enabled display panel 4 to allow a user to enter details regarding metal of bars that are to be joined together, an artificial intelligence based image capturing module 5 to analyze surroundings of body 1 and activates a motorized clamp 7 to clasp bars in a secured manner, a set of sensors to determine diameter and hardness of bars to maintain an optimum air gap in between bars that are to be joined with each other, and a chamber 10 stored with fillet metallic particles to dispense particles within air gap and activates multiple heating unit 11 to provide heat to particles along with rods for joining bars with each other.

No. of Pages : 13 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :12/11/2022

(21) Application No.202231064958 A
(43) Publication Date : 18/11/2022

(54) Title of the invention : HIGH JUMP TRAINING DEVICE

(51) International classification :A63B0005020000, A63B0071060000, A63F0013213000, G09B0019000000, H04N0007180000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
(62) Divisional to Application Number :NA Filing Date :NA

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(57) Abstract :
A high jump training device, comprises of a platform 1 positioned over a ground surface, a display screen 2 accessed by a user for providing input, an artificial intelligence (AI) based imaging unit 3 for capturing and processing surrounding images in order to determine height of user while providing input over screen 2, a panel 4 installed with multiple laser lights 5 that projects a beam of laser light in surrounding of platform 1 to form a trajectory for user to trace while running, a pair of rods 6 positioned with a bar 7 via a motorized slider 8 that translate bar 7 along rod 6 to orient bar 7 at an optimum height for user to jump across bar 7 in order to perform high jump after completing trajectory, a speaker 9 for producing voice commands for instructing user to perform high jump in an appropriate manner.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :19/07/2022

(21) Application No.202231041402 A
(43) Publication Date : 05/08/2022

(54) Title of the invention : AUTOMATIC CONTAINER LID OPENING DEVICE

(51) International classification	:G01N0035040000, B67B0007180000, G01B0011080000, B65B0007280000, G01B0011120000
(86) International Application No Filing Date	:PCT// / :01/01/1900
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :
An automatic container lid opening device comprises of a cylindrical housing 1 constructed with inlet for inserting container, an artificial intelligence based imaging unit 3 installed on inlet for detecting the type and dimension of container, a pair of telescopically operated clipping unit 5 arranged within housing 1 for gripping container, a touch interactive display panel 6 installed on housing 1 for enabling user to enter details regarding opening dimension of lid, an acuity laser sensor 7 integrated on housing 1 for measuring diameter of container's lid portion, an extendable motorized opening unit 8 installed within housing 1 via sliding arrangement 9 for marking a cut around periphery of lid and a pair of extendable jaws 10 installed on the opening unit 8 detach and separate the lid from the container.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :19/07/2022

(21) Application No.202231041403 A
(43) Publication Date : 05/08/2022

(54) Title of the invention : MULTIPURPOSE UTILITY TOOL

(51) International classification :G06F0021620000, B26B0011000000, B25B0021000000, H04N0005330000, B67B0007180000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
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(57) Abstract :
A multipurpose utility tool comprises an elongated body having a first 1 and second 2 portion, first portion 1 attached with a handle for gripping body via user, a motorized ring 7 enclosed via a link and configured at second portion 2 of body for holding a bolt which is positioned over an auxiliary body, an imaging unit 6 placed at second portion 2 for capturing and processing images of surrounding in order to determine dimension of bolt, multiple pneumatically operated pins 8 attached at inner periphery of ring 7 for extending/retracting pin in order to secure a tight grip over the bolt, a slider crank arrangement 5 fabricated between the ring 7 and handle for performing linear reciprocating movement in order to screw/unscrew bolt from nut, an electromagnetic attachment fabricated between end of the ring 7 and link for attaching/detaching link in order to screw/unscrew the nut.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :19/07/2022

(21) Application No.202231041404 A
(43) Publication Date : 05/08/2022

(54) Title of the invention : WEARABLE MASSAGING DEVICE

(51) International classification :A61H0007000000, A61H0015000000, G06F0021320000, H04N0005225000, G06F0001160000
(86) International Application No :PCT// Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA Filing Date :NA
(62) Divisional to Application Number :NA Filing Date :NA

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(57) Abstract :
A wearable massaging device comprises of a wearable unit 1 worn by user, the wearable unit 1 is arranged with guiding-rail 2 fixed with pair of curved shaped member 3 to position over user's desired body-part, an authentication sensor 4 integrated over member 3 for performing biometric scan, a computing unit accessed by user to enter information, an AI enabled imaging module mounted on one of member 3 for capturing images of user, multiple telescopic rods 6 configured on inner periphery of member 3 via sliding arrangement 7 strategized over member 3 and equipped with motorized spherical rollers 8 to provide massage over body-part, a pair of cylindrical rollers 9 installed at member 3 via telescopic bar 10 for applying pressure, a pressure sensor 11 integrated over rollers to determine pressure applied, a FBG sensor 12 coupled with pain detection sensor 13 integrated over rollers to monitor health condition.

No. of Pages : 18 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :19/07/2022

(21) Application No.202231041405 A
(43) Publication Date : 05/08/2022

(54) Title of the invention : UPPER LIMB REHABILITATION DEVICE

(51) International classification :A61B0005000000, A61B0005020500, A61B0005010000, A61H0001020000, A61B0005026000
(86) International Application No :PCT// /
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
An upper limb rehabilitation device, comprising a telescopic rod 2 placed over a surface via a pair of motorized clamping units 3 for modulating intermediate distance, an authentication sensor for storing biometric information, a computing unit 16 handled by user ,a communication module for enabling user to input information, a pair of telescopic frame 7 each connected on ends of telescopic rod 1 through a motorized hinge joint and configured with a handle 8 in order to held and pushed by user, an artificial intelligence enabled imaging module 15 for capturing multiple images, a L-shaped telescopic support 12 for extending and positioning over chest for maintaining user's body up to a specific distance, a pressure sensor for measuring pressure level applied by user, a FBG (Fiber Bragg Grating) sensor associated with a pain detection sensor for detecting vital health parameters of user along with pain.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :19/07/2022

(21) Application No.202231041406 A
(43) Publication Date : 05/08/2022

(54) Title of the invention : STRESS RELIEVING SYSTEM

(51) International classification :G02B0027010000, A62B0018000000, G06F0003010000, A61B0005000000, A42B0003040000
(86) International Application No :PCT//
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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Address of Applicant :Director, GREAT Alliance Foundation, India Mohali ---------- ----------

(57) Abstract :
The present system relates to a stress relieving system, including a head wearable unit 1 that is developed in such a manner to be worn by a user over head, a neck support member 2 is arranged with head wearable unit 1 by means of a pair of motorized ball and socket joints 3 for placing over user's shoulder, a touch interactive display panel 4 is mounted on head wearable unit 1 and linked with the microcontroller for enabling a user to select between a first type and second type of exercise, an AI (Artificial Intelligence) powered RBG imaging unit 5 is configured on neck support member 2 and linked with the microcontroller for capturing multiple images of user's chest and a nasal band 6 is arranged with head wearable unit 1 via a pair of telescopically operated rods 7 for ceasing nostrils of user in an alternative manner.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :19/07/2022

(21) Application No.202231041401 A
(43) Publication Date : 05/08/2022

(54) Title of the invention : GARMENT DISPLAY DEVICE

(51) International classification :G09F0007180000, A47F0007240000, A47F0007190000, B62B0005000000, A47G0025060000
(86) International Application No :PCT// /
Filing Date :01/01/1900
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
A garment display device consists of a telescopic frame connected to suction cups 1 for adhering frame to ceiling portion of a shop, each of the hanger 3 suspended from the frame via telescopic rod 4 to be utilized by shop's owner for displaying clothes, an artificial intelligence enabled image capturing module 5 fitted on frame to detect opening/closing shop shutter, a motorized slider 6 linked between frame and rods 4 translate along length of frame for enabling frame to occupy minimum space and maintain suitable distance between hangers 3 for displaying clothes and multiple pores are fabricated on each of the rods 4 along with motorized iris lid and interconnected with an air blowing unit 8 positioned on the frame, when module 5 detect presence of dust over cloth the blowing unit 8 releases air to remove dust for keeping clothes clean.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049888 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : AUTOMATED CATEGORIZATION OF POSTS BASED ON COMMENTS AND EMOJIS USING NOVEL POST RANKER AND POST PREDICTION MODEL.

(51) International classification	:H01M0010440000, G11B0017049000, G03G0015080000, A24D0003060000, B65D0006220000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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1)DR.SANGEETA BHATTACHARYA
2)MRS. SAYANI CHANDRA

(57) Abstract :
Social network sites are so popular now-a-days that online content makers prefers to choose any of the social media platforms to do their content marketing as well as earn money from it. Moreover, by knowing the preference of the viewers of their posts, they will easily be able to widen their business by posting the likely contents more and more. Hence, we have proposed two novel approaches one which will give the posts ranks and another one will suggest the posts topics. From these suggestions the content makers will be able to understand which type of posts are being liked/shared/commented most by the viewers, which will in turn help them to increase their viewer base.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019
(21) Application No.201931049897 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : A COPLANAR WAVEGUIDE (CPW) FED ANNULAR RING ARRAY ANTENNA WITH HIGH BANDWIDTH FOR WIRELESS COMMUNICATION APPLICATION

(51) International classification	:H01M0010440000, G11B0017049000, G03G0015080000, A24D0003060000, B65D0006220000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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2)ANTARA GHOSAL
3)PROF(DR)SISIR KUMAR DAS
4)PROF (DR)ANNAPURNA DAS
5)AVALI BANERJEE

(57) Abstract :
This work is about three novel design approaches of microstrip patch antenna that describes a particular effective design pattern suitable for enhancement of bandwidth. This design is a simple antenna array with four connected circular patch antenna fed with a microstrip line. The S11 response of this antenna is -43.5 dB at 28 GHz with a bandwidth of 129 %. On the same pattern annular rings were introduced which shows multi frequency response with 55 % bandwidth. The same antenna then fed with CPW technique and the ground structure is defected. The final design of the antenna shows better matching with S11 response of -56 dB at 28 GHz with 60 % (1700 MHz) bandwidth. The designed antennae can be used for satellite communication in Ka band applications also with wireless communication applications.

No. of Pages : 16 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049898 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : AUTOMATIC PATROLLING MACHINE.

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

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2)DR.SURAJIT BASAK
3)SWAGATA BHATTACHARYA
4)RAMKRISHNA MONDAL
5)SANCHARI SAHA

(57) Abstract :
Abstract Terrorism has become a major threat to the peace of modern civilization today .Terrorist mostly comes to a country through borders. To withstand harsh climatic conditions and to have less casualty of soldiers on border a Automatic Patrolling Machine • is proposed. The system detects moving objects on border and fires with Tranquilizer gun to capture the trespassers alive. The web cameras placed on specific points are used to capture moving objects and series of Tranquilizer guns are placed on border to immediately stop them. Then the soldiers catch them alive. The system detects moving object by background modelling by mixture of Gaussian technique and sends a signal to the microcontroller .Microcontroller immediately turn on the servo motor that fires the Tranquilizer gun. At the same time the micro controller sends text alarm to the concerned authority about intruders through GSM.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049882 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : SYSTEM IDENTIFICATION AND MODELLING APPROACH TO IDENTIFY DISEASES USING EMG SIGNAL CLASSIFICATION.

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(72)**Name of Inventor :**
1)MRS.SUPARNA MAITY
2)MR.SUDIP KUILA

(57) Abstract :
The objective of the current study is to apply a system identification and modelling approach to identify diseases using EMG signal classification. Amyotrophic lateral sclerosis (ALS), also known as motor neurone disease (MND), is a progressive chronic disease of the nerves that is generated from the spinal cord and responsible for supplying electrical stimulation to the muscles. This stimulation is very much required for the movement of body parts. And Myopathy refers to a clinical disorder of the skeletal muscles. In the absence of any sensory involvement Myopathies are characterized by motor symptoms.This work uses recorded electromyography (EMG) signals generated by biceps brachii, abductor pollicis brevis, vastus medialis, tibialis anterior,tensor fasciae latae & vestus medialis muscle to identify the diseases. Signal for each disease has one single pattern and it is essential to separate and classify these patterns properly. In this study, feedforward error backpropagation artificial neural networks (FEBANN) and wavelet neural networks (WNN) based classifiers were developed and compared with respect to the accuracy in classification of EMG signals.

No. of Pages : 6 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION
(21) Application No.201931049883 A
(19) INDIA
(22) Date of filing of Application :04/12/2019
(43) Publication Date : 11/06/2021

(54) Title of the invention : ANTI-PUNCTURE SYSTEM FOR LIGHT WEIGHT MOTOR VEHICLE (APSLWMV)

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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2)DR.SANTANU KUMAR SEN
3)DR.D.P.ACHARJYA
4)MADHUSMITA MISHRA

(57) Abstract :
Nowadays, puncture in tire is a common unpredictable situation happened to a vehicle in any type of road due to iron nails, and sharp iron thin objects lying on the road. This invention relates to avoid puncture of light weight vehicles causing due to iron nails and very small sharp iron thin objects lying on roads when the vehicle runs over it. Generally, in local roads and highways when a vehicle is in motion, it is very difficult for a driver to see very small objects like iron nails, small sharpen iron pieces lying on the road. Therefore, when the vehicle wheels run over these materials, probability of puncture may be there in the tires, if these pieces will be inserted into the tires due to heavy frictional force applied on it through the wheel due to motion. This invention tries to find a solution for avoiding puncture in the tire of a light weight vehicle by using a smart device in the vehicle. The smart device is able to collect the iron nails and small sharp iron objects, before the vehicle wheels run over this.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049884 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : COMMUNICATION WITH DYNAMIC ARM MOTION USING FUZZY CONTROL ALGORITHM FOR HOUSEKEEPING.

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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2)SAYAN ROY CHAUDHURI
3)SUPARNA BISWAS
4)IPSITA SAHA

(57) Abstract :
Significant work was made in the direction of natural and intelligent interface development through Human Robot Interaction with Dynamic Arm. Various modes of information, such as video, audio have been proposed either separately or in combination. Household intelligent Dynamic Arm is mainly composed of five parts: the sensor system, motion system, control system, cleaning system and the shifting system. Motion system determines the robot movement space. Dynamic Arm driven design is two-wheel-drive, which can be divided into front and rear-wheel drive. The advantage of front-wheel drive is that navigating performance is improved. While rear wheel is turning wheel, driving direction is easy to control and not liable to immoderate navigating, so that navigating safety is improved. For avoid obstacles in cleaning route, the Dynamic Arm must use the sensing system to real-time monitor the position, status, movement environment, to ensure that the Dynamic Arm is in a normal operating state. The sensors systems of the Dynamic Arm are divided into two parts: namely internal sensors and external sensors. Sensors can be used to calculate the Dynamic Arm's movement speed, acceleration, and its location, etc.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019
(21) Application No.201931049886 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : MOBILE CONTROLLED MICROCONTROLLER BASED FOUR IN ONE PAIN SOOTHING COMBO BELT THAT COMPRISING OF PROM-PAIN-RELIEF-OINTMENT-MASSAGER AND MRV-MUSCLE-RELUCTANT-VIBRATOR AFTER PROVIDING WCHFT-WARM-COOL-HYDRO-FOMENTATION-THERAPY.

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

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3)MS.IPSITA SAHA
4)MR.RAFIQUL ISLAM
5)PROF.(DR.)SANTANU KUMAR SEN

(57) Abstract :
Generally hot-cold therapy is used to get relief from the aching pain of muscle or tender joints. This therapy is also very effective for Lower and upper back pain, Neck stiffness, Knee pain, Wrist-hand pain. Cold therapy decreases the blood flow of the injured area and reduces the rate of inflammation. Similarly heat therapy dilates the blood vessels and helps to relax the muscle. Beside this, some time we need massage and Pain relieving Ointment to alleviate from the muscle pain. In our proposed work we create a Microcontroller Operated four in one multipurpose pain relieving belt which provides an effective WCHFT-Warm-Cool-Hydro-Fomentation-Therapy to increase blood circulation over nerves and blood vessels, pain relieving ointment massager and muscle reluctant vibrator to get relief from muscle pain as well as fatigue. In first section we can use a cooling pad in which we can put ice manually to use it for cold therapy. In the second section we introduce a shock proof water warming pad where a nichrome-copper coil has responsible for water warming and fabricated with a Water Temperature detection sensor (DS18B20). This sensor can be used to monitor the threshold boiling temperature of water. As per the user demand when temperature can reach at the program defined threshold value ,Temperature sensor (DS18B20) will send a positive cutoff signal to microcontroller and it makes an auto-cutoff of the relay module which itself attached with the nichrome-copper coil based water warming pad. So Boiling process can be stopped or re-initiate according to the user input. In third section we can propose a PROM-Pain-Relief-Ointment-Massager. By using PROR-Pain-Relieving-Ointment-Rollerball, pain relieving ointment can be applied to the muscle directly to get relief from the Ortho-muscular pain. We can put the pain killing ointment into the PROCC-Pain-Relieving-Ointment-Contained-Chamber with the help of Ointment-Injecting-Knob. PROCC is directly connecting with PROR. In the fourth section we can incorporate MCMV-Mobile-Controlled-Massaging-Vibrator which is used to create quiver in the muscle. When any massage is needed or pain is incorrigible then this portion can be used. This process can also controlled by User™s mobile phone via voice controlled Bluetooth app.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049887 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : MICROCONTROLLER BASED MOBILE CONTROLLED SMART B(BOIL)-S(SLICE)-C(CRUSH)-M(MIX) QUADRA COMBO JAR FOR PREPARING HOMEMADE FRUIT BASED DELICIOUS FIRNI-KHEER DESSERT.

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

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2)MR.UTATTAHA BANERJEE
3)MR.NIRUPAM SAHA
4)DR.SAYANTAN NATH
5)PROF.(DR.)SANTANU KUMAR SEN

(57) Abstract :
Mixed fruit based firni-kheer is so popular and no thought • delicious dessert for us. At home, the usual convention is never a one step processing of firni-kheer, it requires multiple tasks at multiple steps draining our efforts as well as time and conventional energy source. Our goal is to provide you a one step single go solution to enjoy your firni-kheer relaxing back at your home. A single machine with multiple proposed solution that helps you to it™s best to prepare your firni-kheer, is what we aim to propose. A multi-functional Bluetooth voice controlled mobile app based portable machine enclosed with three DISC-Distinct-Interconnected-Smart-Chambers that, starting from boiling your raw milk upto it™s boiling point parallely with continuous auto stirring using SHSMT-Smart-Heat-Stir-Monitoring-Technique and to slicing the manually pealed fruits added into it in proper desired sizes and crushing or grinding soaked rice, sugar, some dry fruits like cashew nuts and almonds and that to in all distinct chambers and later on mixing them using its two vertically suspending arms clamped on the inner surface of the bottom container™s lid that has already been used for previous stirring, properly in the final stage in a central container inside it. Different stage of activities at different time can be controlled by our proposed apps also. Finally your perfectly blended and mixed delicious firni is made ready at home!! And the most beautiful part of the machine is its functionality is a combination of both automatic operations (Milk boiling upto a certain boiling point) and manual voice input (Required for milk boiling as per user demand, slicing fruits, crushing and grinding dry fruits, soaked rice and sugar with final mixing in different stages at different time using SPSASL-Servo-Powered-Suspending-Arms-Fitted-Smart-lid technique throughout executing the whole process) via our proposed mobile app. The entire manual operations will be performed via smart phones using bluetooth HC05. A mobile application will be taking care of all the user™s interaction with the machine seamlessly.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049920 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : A POTENTIAL SOURCE OF POLYPHENOLS AND DIETARY FIBRE IN FOOD FORTIFICATION

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

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3)MS.SAURJAYNEE BISWAS
4)NIBEDITA CHOWDHURY
5)DEBORIMA BERA

(57) Abstract :
The inner most portion of corn cob is called corn pith and by experiments it has been found that this corn pith is a good source of water soluble polyphenols as well as it is rich in dietary fibre. But there is no such value added food item developed so far using this corn pith. In the present study, corn-pith powder was prepared by drying, pulverization followed by size separation. The polyphenol content of the corn pith powder was measured spectrophotometrically using the Folin-Ciocalteu reagent and the values were expressed in terms of Gallic Acid Equivalent (GAE) [1]. Dietary fibre content was estimated by standard AOAC method [2]. It was found that the water soluble polyphenol content in dried corn pith powder is 2.0035g GAE/100 g sample and the total dietary fibre content is 87 gm/100g sample. Now this nutritionally rich corn pith powder was utilized in different food fortification like laxative, instant soup mix and bakery products. Sensory analysis of the food products were done by 9 point hedonic scale [3]. In all these food products corn pith powder enhanced the functional properties of food material. Thus, this unused agricultural waste can be utilized in different food fortification.

No. of Pages : 7 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049921 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : MICROENCAPSULATED STARCH BEADS ENRICHED IN NATURAL ANTIOXIDANTS

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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2)MS.ROSALIN NATH
3)MS.AVISIKTA GHOSHDASTIDAR
4)MS.SWAGATALAKSHMI CHAKRABORTY
5)MR.ARNAB SAHA
6)MS.QUAZI FARHEEN ZAMAN

(57) Abstract :
Taro (Colocasiaesculenta) a tropical plant grown primarily for its edible corms is a great source of different nutrients including fibres, resistant starch, potassium, magnesium and vitamin C and E. It is also rich in quercetin, cryptoxanthin and plant flavonols from the flavonoid group of polyphenols. The various antioxidants and polyphenols protects against free radical damage. In the present study, Taro root powder was prepared by dehydrating the taro roots in tray dryer, it was pulverized and sieved through 120 mesh size. Dietary fibre content in Taro roots was estimated by standard AOAC method [1] and found to be 4.1g/100g of sample on dry basis. Polyphenol from lime peel is primarily extracted in water because lime peels contain water-soluble antioxidants that slow down the process of atherogenesis and plaque build-up on the walls of artery. The water soluble polyphenol levels were measured spectrophotometrically using the Folin-Ciocalteu reagent and the values were expressed in terms of Gallic Acid Equivalent (GAE) [2] which was found to be 1.5g GAE/100 g sample on dry basis. Dehydrated taro root powder then mixed with water to form dough from which small beads were made and converted to pearls after boiling. These pearls were then soaked in polyphenol rich lime peel extract overnight for microencapsulation and finally nutrient rich Phyto-pearls were prepared. These antioxidants rich phyto-pearls can be incorporated in almost all kinds of non-alcoholic beverages, appetizer, etc. The product is manufactured using very minimum processing techniques and minimal cost.

No. of Pages : 9 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049922 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : SYNOPSYS OF RADIO CONTROLLED UNMANNED DERRICK

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

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3)TRISHITA GHOSH CHOWDHURY
4)MD.MIZAN
5)SUPARNA KARMAKAR

(57) Abstract :
The Project focus on Wireless Communication by means of daily use materials, like Smartphone. A simple android app will be able to control the Movement of a Crane and also the working of the gripping mechanism attached to it. It also has an autonomous mechanism that will notify the person controlling the car when the back of the car detects any obstruction like wall. The project is absolutely market ready and the solution will decrease a huge amount of life risk of the driver and also reduce the manufacturing cost, resulting high demand and the business of this idea will stay very steady.

No. of Pages : 5 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049923 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : SYNOPSYS OF ASTUTE TRASH BARREL

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
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(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

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3)TRISHITA GHOSH CHOWDHURY
4)MD.MIZAN
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(57) Abstract :
The Garbage and recycling pickup work is physically demanding and it exposes workers to many occupational hazards. This project is designed to fulfill the task of collecting garbage from certain places and then dispose it at a single place from where the garbage will then be taken for disposal or process of recycling. To build an automatic trash robot using Arduino microcontroller which detects and collects the paper and plastic items automatically and process it. So, this reduces the requirement of manual clearance of plastic waste.

No. of Pages : 8 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049900 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : SOFTWARE CONTROLLED SMART SEALED VALVE REGULATED LEAD-ACID MOVEABLE BATTERY (120-240AH)

(51) International classification	:H01M0010440000, G11B0017049000, G03G0015080000, A24D0003060000, B65D0006220000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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3)SOMA BORAL
4)DR ARUN KUMAR MONDAL
5)KOUSHIK PAL

(57) Abstract :
A new type of Sealed valve regulated lead acid batteries or sealed rechargeable batteries is proposed. This type of battery can be used to provide power for home appliances and also may be used for other appliances like automotive, boats etc. This smart battery is easy to move from one place to another with the help of caterpillar tracks which is not seen in the present battery type.

No. of Pages : 8 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049901 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : GREEN POWER GENERATION FOR RURAL DEVELOPMENT

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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4)DEBOLINA CHATRTERJEE
5)PARAMITA BHOWMICK
6)HRITHIKA SAHA

(57) Abstract :
Electrolysis is a process to drive an otherwise non-spontaneous chemical reaction using a direct electric current.Electrolysis is commercially important as a stage in the separation of elements from naturally occurring sources such as ores using an electrolytic cell. In this paper, we are presenting a fuel cell which is an electrochemical device which can continuously convert chemical energy into electrical energy. In India, providing fuel and electricity to rural areas is becoming a challenging task.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019
(21) Application No.201931049902 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : FIRE FIGHTING SYSTEM.

(51) International classification	:H01M0010440000, G11B0017049000, G03G0015080000, A24D0003060000, B65D0006220000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

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(72)**Name of Inventor :**
1)DR.BARNALI KUNDU
2)MR.SUMAN GHOSH
3)MR.SHYAMAL ROY
4)SUBHAJIT DUTTA
5)SOURAV DAS

(57) Abstract :
ABSTRACT A fire fighting system is a robotic vehicle which is capable of noticing a fire if a house catches fire when they not present in the house, while somebody in the house is either sleeping. By means of this robot, people and belongings can be protected from fire accidents. Using robot we can detect and extinguished a fire in early stages. This would also improve the efficiency of firefighters and prevent them from risking human lives. This robot uses RF technology for remote operation & also 8051 microcontrollers. This fire fighting robot could move according to the flame sensors and with the help of a motor driver towards the fire and sprays water using a simple relay circuit to stop it. The robot is mounted with sensors and fire extinguisher. The light and a smoke sensor will detect fire and extinguisher will extinguish a fire. In this project, we have deployed android application to control the robot. In this way, we have developed a full equipped robot to perform fire fighting. The Arduino is programmed in C++. Robots are small in size and can be fitted through any small places in order to complete its operation and it can be manufactured in a vast amount so a large number of robots can be available in the time of requirement.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049903 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : DESIGN OF EXO-ARM FOR PHYSICALLY DISABLED PERSONS.

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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2)BIKRAM DAS
3)DEBANJAN CHATTERJEE
4)SUDIP DAS
5)SOUDIP MAJI
6)DEBASREE SAHA

(57) Abstract :
Recently robotics plays an important role in the field of health sector, defense services, agriculture, industry, domestic application, etc. In this project, an exo-arm has been developed to help the physically disabled person to do the normal house hold work by switch operation, wireless control via phone, voice control, and gesture control. It is a highly efficient robotic arm which will be beneficial to a paralyzed person having neural problem in hand to do some task, or who has lost hand and/or fingers in accident or disabled persons. It also enhances the physical strength of any people, mostly army people to do their specific jobs.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049904 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : MOBILE CAR ROBOTS CONTROL USING A TRIPPLE AXIS MAGNETOMETER

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(72)**Name of Inventor :**
1)DEBASIS AGASTI
2)ARPAN LAHIRI
3)RIKTA MAJUMDER
4)SUSOVAN DUTTA

(57) Abstract :
With the employment of a magnetometer and infrared (IR) technology the task of making a mobile vehicle move in a particular angle, with respect to the magnetic north of earth, can be achieved. Reading one of the angular axis movement data, to be particular the YAW axis data, from a triple axis magnetometer, mounted on a portable controller, compass readings can be read on a liquid crystal display (LCD) screen and hence the controller can be pointed towards a desired direction and angle and accordingly the mobile vehicle can be moved in the set direction. For the purpose of making the mobile vehicle move in the set direction the compass angle of the direction is sent to the mobile vehicle through an infrared light emitting diode (LED) using an infrared protocol, to be more precise the infrared NEC protocol was used. The vehicle then receives the information sent by the controller using an IR receiver then moves in the compass angle as set using the portable controller.

No. of Pages : 9 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049917 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : IOT AND ML BASED AC AND DC VOLTAGE CONTROLLING AND ELECTRICAL PARAMETER MEASUREMENT

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(72)**Name of Inventor :**
1)MR.SHYAMAL KUMAR ROY
2)MR.SUMAN GHOSH
3)DR.BARNALI KUNDU
4)MR.DEBASIS AGASTI

(57) Abstract :
This invention presents the experimental and constructional details of an IOT and ML based voltage controlling and electrical parameter measurement device with an over current protection setting feature. Able to provide a maximum of 24A current the device can be operated using a secure mobile application, built using JAVA and XML and connected to an online database.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049918 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : DESIGN AND DEVELOPMENT OF BIOMETRICALLY SECURED, REAL-TIME AND LOW COST ELECTRONIC VOTING MACHINE (EVM)

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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2)MR.SHYAMAL KUMAR ROY
3)DR.BARNALI KUNDU
4)MR.RITWIK RAY CHUDHURI

(57) Abstract :
Electronic Voting Machine (EVM) is a simple electronic device used to record votes in place of ballot papers and boxes which were used earlier in the conventional voting system. All earlier elections are in state elections or centre elections are a long, time-consuming process and very much prone to errors. This project discusses the complete review of the electronic voting machine using Arduino UNO. Here Voting for more than one post can be done at the same time, saving money and human resources and no need to change the programme each time before the voting. SET UP functions enables the authority to enter the name of post and candidates for each post just before elections, making the voting more secure. In this proposed system we have used Arduino and Finger Print Scanner that can identify each voter, count votes and can prevent fake votes. The proposed system is more digital, technology-based and secured system.

No. of Pages : 10 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049919 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : A WORKING PROTOTYPE OF SMART SOLAR AIR COOLER WITH AUTO WATER REFILL AND HIGH AIR-QUALITY INDEX(AQI) FEATURES

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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2)J.K.DAS
3)RIKTA MAJUMDER
4)SAYANTAN SAHA
5)SAYONI GHOSH

(57) Abstract :
The present invention is about a working prototype of smart solar air cooler with auto water refill technology and inbuilt high air quality index (AQI) features. It runs on green energy which is solar in this case. It is also free from the hazards of water filling as auto water refill technology is there.

No. of Pages : 6 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :28/03/2022

(21) Application No.202231018076 A
(43) Publication Date : 22/04/2022

(54) Title of the invention : COSMETICS PROCESSESING DEVICE

(51) International classification :A47J0043250000, A23K0010370000, A61Q0019000000, A61L0002080000, A45D0040240000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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2)Tridib Chakraborty
3)Suman Ghosh

(57) Abstract :
A cosmetics processing device comprising a housing 1 configured with at least two authenticating units 2, 3 for verifying identity of a user, a microcontroller for generating a command on successful verification, a display unit 4 for allowing the user to input amount and consistency required to process the cosmetics, a motorized gripper 6 for gripping beetroot stored in first chamber 5, a peeler 9 and a grater 10 positioned within second chamber 8 for peeling and grating the beetroots, a grinder 12 located within third chamber 11 for grinding, a sieve 13 and a pneumatic pusher 14 assembled within fourth chamber 15 for extracting liquid from grinded beetroots, containers 16 for releasing ingredients for mixing with the liquid via a stirrer 18 to obtain required amount of processed cosmetics, and a motorized scrapper 19 for sweeping processed cosmetics in a fifth chamber 20 through a motorized lid 21.

No. of Pages : 16 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :13/04/2022

(21) Application No.202231022207 A
(43) Publication Date : 13/05/2022

(54) Title of the invention : NECK THERAPY DEVICE

(51) International classification	:A61B0005000000, G06F0003041000, A61N0001040000, G16H0040630000, A63B0022020000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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2)Prof(Dr) Santanu Kumar Sen
3)Dr. Divya Thakur
4)Dr. Inderpreet Kaur
5)Dr. Barnali Kundu
6)Dr. Suparna Biswas

(57) Abstract :
A neck therapy device, comprising a base 1 configured with multiple motorized omni-directional wheels 2 that are adapted to maneuver the base 1 towards a user laid on a laid on a sleeping platform 15, an image capturing module 3 to detect positioning of neck portion of the user, a pneumatic rod 16 arranged with a cushioned pillow 17 for providing comfort to user, a pair of L-shaped telescopically operated bars 4 arranged with a motorized clamping unit 5 for gripping neck portion of user, a pair of pneumatically operated grabbers 6 for grabbing shoulder portion of user, a sensing module 7, 8 for measuring force applied and pain experienced by user, an electronic nozzle 9 coupled with a chamber 10 for dispensing a pain relieving solution, a touch interactive display screen 11 for enabling the user to input data, an infrared lamp 12 for providing a thermal massaging.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049881 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : AGRO PHOTOVOLTAIC SYSTEM (APV)-EFFICIENT LAND USE FOR PROFICIENT AGRICULTURE.

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(72)**Name of Inventor :**
1)SANTANA DAS
2)SANGHAMITRA LAYEK

(57) Abstract :
[01] Land is selected for either photovoltaic or photosynthesis, that is, to generate electricity or grow crops. An agro photovoltaics (APV) is demonstrated that duo uses are companionable. Dual use of land is resource efficient, reduces antagonism for land and moreover opens up a new source of income for farmers. Agro photovoltaic may be also named as Resource Proficient Land Employment (RPLE) .Solar Panels for electricity production is installed directly above crops covering the land. Now the first solar yield of power and produce is collected on both levels.

No. of Pages : 18 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2019

(21) Application No.201931049899 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : N-QCM D SENSOR

(51) International classification	:H04L0029080000, H03K0003356000, H04W0012040000, A61B0017000000, A01N0063040000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

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(57) Abstract :
The QCM sensors as well as QCM-D sensors are well known sensors in the field of immunosensors. The sensitivity of the sensor towards the change in the mass due to the reactions of antigen-antibody, more specifically the Immobilization of the antigen or antibody on the surface of the QCM sensor to provide the space for the reaction is a critical issue with respect to the designing aspect. This involves the surface preparation of the sensor. This work mainly concentrates on the designing and fabrication of a suitable nano-layered QCM sensor used with dissipation principle and also to use nano materials for itself as the piezo element of the senor and is named as n-QCM-D • so as to improve its sensitivity.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :20/12/2021

(21) Application No.202131059233 A
(43) Publication Date : 21/01/2022

(54) Title of the invention : CAMFECTING DETECTION SYSTEM FOR IP SURVEILLANCE CAMERA

(51) International classification	:H04N0007180000, G08B0013196000, H04N0005232000, H04N0005225000, G08B0003100000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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1)Mr.Tridib Chakraborty
2)Mr. Sudeep Ghosh
3)Dr. Santanu Kumar Sen
4)Mr. Soumyadipta Basu,

(57) Abstract :
This invention relates to a Camfecting detection system for IP surveillance Camera and in particular, this invention relates to a Camfecting detection system for IP surveillance Camera which is the process of attempting to hack into a person's webcam and activate it without the webcam owner's permission. More particularly, this present invention relates to the Camfecting detection system for IP surveillance Camera which will monitor the IP of the application which is trying to access the camera, and predict unauthorized and harmful access of the camera. Furthermore, this invention also relates to a Camfecting detection system for IP surveillance Camera in which the sensitivity is high; and the structure is simple and the cost is low, easy to operate and easy to popularize.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :27/12/2021

(21) Application No.202131060815 A
(43) Publication Date : 21/01/2022

(54) Title of the invention : A SWEAT-POWERED HEADPHONE

(51) International classification	:H04R0001100000, H04R0005033000, H02J0007320000, H04M0001600000, H04R0003120000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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1)Swagata Bhattacharya
2)Dr. Suparna Biswas
3)Dyuti Nandi
4)Sayan Majumder
5)Sayan Bhattacharjee

(57) Abstract :
The present disclosure relates to a sweat powered headphone (100) and method (200) of self-recharging the headphone. The sweat-powered headphone (100) is a wireless self-powered headphone, that comprises a U-shaped flexible neckband (102), a pair of earbuds (104), a wireless module (106), a polyester cellulose coated cloth (108), and a plurality of power cells (110).The U-shaped flexible neckband (102) provides handsfree accommodation of the headphone. The pair of earbuds (104) provides audio for hearing.The polyester coated cloth (108) comprises a thin layer of polymer. The polymer generates energy when receives droplet of sweat of user. The plurality of power cells (110) stores the generated energy for providing necessary power to operate the headphone.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :27/12/2021

(21) Application No.202131060819 A
(43) Publication Date : 21/01/2022

(54) Title of the invention : METHOD OF ACCURATLY ESTIMATING DISTANCE BETWEEN TRAIN AND NEAREST RAILWAY GATE AND SYSTEM THEREOF

(51) International classification	:H04L0029060000, G06F0030000000, G06F0030200000, H03M0013370000, G06F0008340000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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1)Dr. Surajit Basak
2)Dr. Soumik Podder
3)Jayita Pramanik
4)Poushali Paul
5)Sneha Baidya
6)Tias Ghosh

(57) Abstract :
The present disclosure relates to a method and system for accurately estimating train and nearest railway gate. The method comprises receiving one or more inputs related to a trainby an automata module and processing the one or more inputs received by a deterministic finite automata (DFA) module. The method also comprises computing dynamic behavior of a system based on the processed inputs by a unified modelling language (UML) module, and estimating the distance based on the computed behavior by a Vienna development method real rime (VDM-RT) module.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :27/12/2021

(21) Application No.202131060883 A
(43) Publication Date : 21/01/2022

(54) Title of the invention : A METHOD AND SYSTEM FORDETERMINING DIRECTION BY AN AUTONOMOUS ROBOT

(51) International classification	:G01C0021340000, G05D0001020000, G06K0009620000, G06Q0010080000, G06N0007020000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(72)**Name of Inventor :**
1)Sayan Roy Chaudhuri
2)Moloy Dhar
3)Sayan Majumder
4)Sayan Mondal
5)Satish Singh

(57) Abstract :
The present disclosure relates toa method (200) and system (100) fordetermining direction by an autonomous robot (104). Themethodcomprises receivingone or more inputs in respect of a source location and a destination location and determining a shortest pathway from the source location to the destination location through accessible road or maze. The method further comprises obtaining one or more nearby obstacles byan overheadimage capturing unit (130) at the time of journey on the determined shortest pathway. The method includes acquiring a plurality of variables on basis of obtained one or more nearby obstacles in the determined shortest pathway and generating an angular direction of amaneuvering equipment as output variable by a fuzzy logic model to provide optimum path to reach destination location after circumventing the obstacle, wherein the fuzzy logic model receives the plurality of variables as input variables.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :27/12/2021

(21) Application No.202131060908 A
(43) Publication Date : 21/01/2022

(54) Title of the invention : "A METHOD AND SYSTEM FOR MANAGING HEALTHCARE, EDUCATION AND GOVERNANCE ACTIONS FOR RURAL CITIZENS"

(51) International classification	:G06Q0030060000, G06Q0010060000, G06Q0030020000, H02J0003120000, G06F0016954000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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2)DR. SUNIPA ROY
3)DR. SUPARNA BISWAS
4)AYUSHA BISWAS

(57) Abstract :
The present disclosure relates to a method and a system for managing healthcare, education and governance actions for rural citizens. The method comprises registering a consumer by receiving a unique identification of the consumer and determining eligibility of the consumer for one or more categories of services, wherein the categories of services include healthcare, education and governance. The method comprises receiving request for at least one service from the consumer through a user interface, wherein the consumer selects a required service from a list of services associated with the one or more categories of services presented to the consumer via the user interface. The method includes retrieving a plurality of information from a data repository and one or more sensors with respect to a category of service in real time and dynamically generating an analytical and visual representation with one or more critical parameters based on retrieved plurality of information.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :10/12/2021

(21) Application No.202131057629 A
(43) Publication Date : 21/01/2022

(54) Title of the invention : AUTOMATIC FOREST FOSTER ROBOT- AFFRO-BOT

(51) International classification :G06K0009000000, G08B0025100000, A01M0029120000, G06Q0050020000, A01G0023000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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2)Dr. Debasree Saha
3)Susovan Dutta
4)Priyanka Dutta
5)Amit Debnath
6)Subhajit Dutta

(57) Abstract :
A flourishing life on land is the foundation for our life on this planet, people directly depend on forests for their livelihood and forest are home to more than 80% of all terrestrial species of animals, plant and insects. We are all part of the planet's ecosystem and we have caused severe damage to it through deforestation, loss of natural habitats and land degradation. In the recent few years' wildlife has decreased rapidly in spite of having conservation and preservation zones due to lack of maintenance due to wild animals and dense and vast vegetation as well as natural and man-made catastrophes. With advancement in technology robots can replace human and can reach difficult parts of the wildlife vegetation without interrupting the ecosystem and maintaining the biodiversity of the environment, the robot equipped with different sensors can also be use for surveillance for illegal trespassing as well as poaching in the wildlife vegetation. With in-built server the robot and cloud database, it can keep a record changes in the wildlife ecosystem, species populations and vegetation over a certain period of time.

No. of Pages : 9 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :13/12/2021

(21) Application No.202131057753 A
(43) Publication Date : 21/01/2022

(54) Title of the invention : CARBON NANOTUBES MEMBRANES: APPLICATION IN WATER PURIFICATION

(51) International classification	:B01D0067000000, B01D0069120000, B01D0071680000, B82Y0030000000, B01D0069020000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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1)MR. SHYAMAL KUMAR ROY
2)DR. BARNALI KUNDU,
3)MR. SUMAN GHOSH
4)MS. MADHUMITA CHAKRABORTY

(57) Abstract :
The invention analyzes the fabrication of CNT membranes and their Functionalized membranes were also analyzed by breaking down the process whereby PEG is added to carboxylic CNTs in a reaction catalyzed by sulphuric acid, with such structure being found to have increased mechanical properties. A comparison between CNT based membranes and other conventional membranes used in water purification were formed. This comparison was made by considering the efficiency of the membranes in water permeability, salt rejection, as well as the overall physical and mechanical properties of the membranes. CNT based membranes were found to perform better than the conventional membranes in most categories, making them the most cost effective and useful among the membranes with room for further improvement.

No. of Pages : 19 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :13/12/2021

(21) Application No.202131057754 A
(43) Publication Date : 21/01/2022

(54) Title of the invention : ARDUINO BASED SMART IRRIGATION SYSTEM USING IOT

(51) International classification	:A01G0025160000, G06Q0050020000, A01B0079000000, H04W0076100000, G08C0017020000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(72)**Name of Inventor :**
1)MR. SUMAN GHOSH
2)MR. SHYAMAL KUMAR ROY
3)DR. AVEEK CHATTOPADHYAYA

(57) Abstract :
An automated irrigation system for efficient water management and intruder detection system has been proposed. Soil Parameters like soil moisture, pH, Humidity are measured and the Pressure sensor and the sensed values are displayed in LCD. The intruder detection system is done with the help of PIR sensor where the birds are repelled from entering into the field. The GSM module has been used to establish a communication link between the farmer and the field. The current field status will be intimated to the farmer through SMS and also updated in the webpage. The farmer can access the server about the field condition anytime, anywhere thereby reducing the man power and time.

No. of Pages : 14 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :14/12/2021

(21) Application No.202131058066 A
(43) Publication Date : 21/01/2022

(54) Title of the invention : A MACHINE LEARNING BASED INTELLIGENT TRAFFIC MANAGEMENT SYSTEM AND ITS METHOD THEREOF."

(51) International classification	:G08G0001017000, G08G0001000000, H04L0012823000, G08G0001140000, G08G0001096200
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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2)Palasri Dhar
3)Swagata Bhattacharya
4)Mamata Singh
5)Atrayee Gayen
6)Deepak Pandey

(57) Abstract :
The present invention relates to an Intelligent Traffic Management System. More particularly, the present invention relates to the Intelligent Traffic Management System which is based on machine learning. This invention also relates to the Intelligent Traffic Management System which detects the bike drivers without helmet and notes the bike number using ML based module. The present invention relates to the Intelligent Traffic Management System having an advantages of acquiring more effective information and facilitating determination on whether a traffic rule maintaining behavior of the driver exists and automatic and smart system to detect bikers without helmet, Automatic action of traffic rules violation and reducing of manpower.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :14/12/2021

(21) Application No.202131058069 A
(43) Publication Date : 21/01/2022

(54) Title of the invention : "MULTI-FORTIFIED MILK POWDER: AN IMMUNE-BOOSTING MIX LOADED WITH BIO-ACTIVE COMPOUNDS TO FORTIFY DAIRY BASED FOOD VEHICLES"

(51) International classification	:A23L0007100000, A23C0009152000, A23L0033185000, A23C0009158000, A23L0033160000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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1)Ms. Dolanchapa Sikdar
2)Dr. Shiladitya Ghosh
3)Dr. Kakali Bandyopadhyay
4)Mr. Ishon Mollick
5)Ms. Monika Paul

(57) Abstract :
Food fortification is the favourably adopted way to develop immunity boosting foodstuffs especially in times of pandemics or in general to keep a good health. Management of fruit processing waste (FPW) is a matter of concern in urban and rural areas of the developing countries. Focussing on the various residual nutrients present in FPWs, which are wasted, new inventions are attempting to recover and utilise these valuable bio-active compounds. Under the global agenda of circular economy these FPWs acquired a special research attention for their fruitful utilization and valorisation to develop multiple value-added food/feed additives. Two commonly produced FPWs in West Bengal are; juice extracted guava pulps and pumpkin seeds. These two edible FPWs contain dietary fibre, crude fat and micronutrients (minerals and polyphenols), which are desirable food fortificants and health promoting substances. For real implementation of such fortification a county-specific, compatible and popular food vehicle (Milk Powder; prepared by spray drying process of packaged whole milk) was selected to uniformly reach all layers of Indian population. These two FPWs were methodically processed and used for formulating a Multi-Fortified Milk Powder (MMP). The physico-chemical analyses confirmed that the MMP received the targeted bio-actives from both fortificants and retained those. No exclusive extraction and purification of the bio-actives have been performed; instead, they have been added along with their source materials. The fully edible nature of the two FPWs permitted this, which lessened the processing cost of the fortificant mixes. The produced MMP was used in multiple simple recipes for preparing various fortified consumer-convenient food products like health drink, custard and ice-cream/kulfi. The 'Like very much' grade was assigned to the MMP based on the feedback of the volunteer based sensory evaluation. Hence, it is expected that this fortified base product may acquire the eligibility to emerge as a consumer preferred popular fortificant for many Indian dairy products.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :15/12/2021

(21) Application No.202131058308 A
(43) Publication Date : 21/01/2022

(54) Title of the invention : A SMART IRRIGATION SYSTEM WITH CONTROLLED POLLUTANTS PRESENT IN THE AIR IN RURAL AND INDUSTRIAL AREA

(51) International classification	:A01G0025160000, G01N0001220000, A47G0029120000, G06Q0050020000, F23K0001000000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(72)**Name of Inventor :**
1)Ms . Bapita Roy
2)Ms Shilpita Hazra
3)Sampreet Dey
4)Sakya Mridha

(57) Abstract :
This invention relates to a smart irrigation system and in particular, this invention relates to a smart irrigation system with controlled pollutants present in the air in Rural and Industrial Area. More particularly, this present invention relates to a smart irrigation system with controlled pollutants present in the air in Rural and Industrial Area which will enhance the overall quality and quantity of specific crops by minimum maintenance. Furthermore, this invention also relates to a smart irrigation system with controlled pollutants present in the air in Rural and Industrial Area which is simple in process, low cost for the enhanced water resources for agriculture production.

No. of Pages : 35 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :15/12/2021

(21) Application No.202131058321 A
(43) Publication Date : 21/01/2022

(54) Title of the invention : BIOMEDICAL DATA INTEGRATION SYSTEM

(51) International classification	:A61B0005000000, G06Q0050220000, G06F0016250000, G16H0080000000, G16H0010200000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(72)**Name of Inventor :**
1)Bapita Roy
2)Paramita Banerjee
3)Anirban Saha

(57) Abstract :
The present invention relates to a biomedical data integration system. More particularly, the present invention relates to the biomedical data integration system which allows the medicos to get the real time preliminary data of the patients to follow the correct medical treatment procedure. This invention relates to the biomedical data integration system wherein the data can be shared to the doctors to start the medical procedure. The present invention relates to the biomedical data integration system wherein the medical data information of rare diseases is effectively collected, sorted, classified, summarized and cooperatively consulted and the comprehensive clinical treatment is provided for patients, and positive diagnosis reference is provided for medical institutions and professional doctors.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/12/2021

(21) Application No.202131058583 A
(43) Publication Date : 21/01/2022

(54) Title of the invention : ROBOT FOR EXTINGUISHING A FIRE

(51) International classification	:A62C0003160000, G08B0017100000, A62C0099000000, G08B0017120000, A62C0003020000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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2)Mr. Tridib Chakraborty
3)Mr. Sudeep Ghosh
4)Mrs. Trishita Ghosh
5)Dr. Santanu Kr Sen

(57) Abstract :
The present invention relates to a Robot for Extinguishing a Fire. More particularly, the present invention relates to the Robot for Extinguishing a Fire which can detect and extinguish fire as and when required. This invention relates to Robot for Extinguishing a Fire which detects fire and raise alarm to let the people be alert and extinguishes the fire. The present invention relates to the Robot for Extinguishing a Fire wherein the robot is low in cost, simple in structure and complete in function, and can autonomously move in a simple room model to realize circular detection and elimination of a fire source; and the adopted components are simple and easy to obtain, the structure is clear, the functions are rich.

No. of Pages : 14 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :17/12/2021

(21) Application No.202131058839 A
(43) Publication Date : 21/01/2022

(54) Title of the invention : AIR-WRITING CHARACTER RECOGNITION SYSTEM

(51) International classification	:G06F0003034600, G06K0009000000, G06K0009620000, G06F0003041000, G06K0009220000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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2)Tridib Chakraborty
3)Suaprna Karmakar
4)Md. Mizan
5)Dr. Santanu Kr Sen

(57) Abstract :
The present invention relates to an air-writing character recognition system. More particularly, the present invention relates to the air-writing character recognition system which recognizes the handwriting and identify the correct person in any sector without touching anything. This invention also relates to the air-writing character recognition system wherein air writing is an approach for writing character or words or text with hand or finger movements in a free space without using any pen-paper or a keyboard. The present invention relates to the air-writing character recognition system having an advantages of the accuracy of aerial writing track recognition can be improved.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :03/12/2021

(21) Application No.202131056253 A
(43) Publication Date : 07/01/2022

(54) Title of the invention : A SYSTEM FOR SHIP NAVIGATION BY USING PETRI NETS

(51) International classification :C12M0001220000, G06F0030220000, B63G0009000000, G06Q0010040000, G06Q0010060000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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5)Biswajeet Roy
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(57) Abstract :
This invention relates to a system for ship navigation using Petri nets and in particular, this invention relates to a system for ship navigation using Petri nets wherein each ship takes a different path to arrive to their respective destinations. More particularly, this present invention relates to a system for ship navigation using Petri nets wherein the number of routes and number of ships is restricted to two. Furthermore, this invention also relates to a system for ship navigation using Petri nets which is simple in process, while the structure of a model system is clear and accurate.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/12/2021

(21) Application No.202131056286 A
(43) Publication Date : 07/01/2022

(54) Title of the invention : IOT BASED SMART ROBOTIC ARM

(51) International classification :H04L0029080000, B25J0005000000, A61B0005055000, G01N0035000000, H01Q0003260000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
The present invention relates to an IoT based smart robotic arm. More particularly, the present invention relates to the IoT based smart robotic arm which serve handicapped, aged, and blind people by providing domestic and medical assistance. This invention relates to the IoT based smart robotic arm wherein several types of motors help for smooth sinusoidal movement of the Mecanum Robotic Arm (MRA). The present invention relates to the IoT based smart robotic arm having an advantage of being used for both used commercially for hospitality and clinical purposes, very cost effective, simple in its action and easy to handle.

No. of Pages : 13 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :06/12/2021

(21) Application No.202131056501 A
(43) Publication Date : 07/01/2022

(54) Title of the invention : IOT BASED SOLAR POWERED MULTIPURPOSE VEHICLE USED FOR CRICKET GROUND'S DEW SOAKING AND MOISTURE DRYING

(51) International classification	:B64D0027240000, C02F0001140000, H02J0007350000, F26B0021000000, H01R0013520000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :
The present invention relates to an IOT Based Solar Powered Multipurpose Vehicle. More particularly, the present invention relates to the IOT Based Solar Powered Multipurpose Vehicle used for Cricket Ground's Dew Soaking and Moisture Drying. This invention relates to the IOT Based Solar Powered Multipurpose Vehicle which can cover up the pitch by WPTM (waterproof poly-tarpaulin mat) to protect the twenty two yards from the rain. The present invention relates to the IOT Based Solar Powered Multipurpose Vehicle having an advantages of the requirement for drying the ground is met and the structure is simple, the construction cost is low, and the moisture prevention effect is good, very cost effective, simple in its action and easy to handle.

No. of Pages : 24 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :08/12/2021

(21) Application No.202131056937 A
(43) Publication Date : 07/01/2022

(54) Title of the invention : A NETWORKED MONITORING GARBAGE BIN FOR SMART CITY

(51) International classification :B65F0001140000, B65F0001000000, G06Q0050260000, B65F0001160000, B65F0001120000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
The present invention relates to a networked monitoring garbage bin for smart city. More particularly, the present invention relates to the networked monitoring garbage bin for smart city wherein integrated garbage monitoring and collection system is synchronizing the garbage level in real time and send alert to the municipality where the bin is full based on exact coordinated traced back to the microprocessor IP. This invention relates to the networked monitoring garbage bin for smart city which allows the waste management to monitor based on the level of the garbage depth inside the dustbin. The present invention relates to the networked monitoring garbage bin for smart city having an advantages of the garbage recycling bin is reasonable in structure, the size of the garbage recycling bin can be rapidly, conveniently and flexible according to the requirements of users, parts of the garbage recycling bin can be simply and efficiently disassembled, assembled and replaced, the cruising ability is high, the practicability is high, and the garbage recycling bin is suitable for popularization.

No. of Pages : 17 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :09/12/2021

(21) Application No.202131057187 A
(43) Publication Date : 07/01/2022

(54) Title of the invention : A MULTI SLOTTED PATCH ANTENNA FOR WIRELESS APPLICATION

(51) International classification	:H01Q0009040000, H01Q0021080000, H01Q0005364000, H01Q0021000000, H01Q0015140000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :
The present invention relates to a novel multi slotted patch antenna for wireless application. More particularly, the present invention relates to the multi slotted patch antenna for wireless application wherein a simple rectangular patch is operable at 2.1 GHz center frequency. This invention relates to the multi slotted patch antenna for wireless application wherein the multiple slots are introduced on the patch. The present invention relates to the multi slotted patch antenna for wireless application having an advantages of wide in working frequency band, small in size, simple and stable in structure and suitable for large-scale popularization and application.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :09/12/2021

(21) Application No.202131057188 A
(43) Publication Date : 07/01/2022

(54) Title of the invention : A SYSTEM FOR MAINTAINING TRAFFIC RULES FOR ASSISTING THE DRIVERS

(51) International classification :H04L0029060000, G08G0001096200, H04W0052320000, G08G0001017000, G08G0001160000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
The present invention relates to a system for maintaining traffic rules. More particularly, the present invention relates to the system for maintaining traffic rules for assisting the drivers. This invention relates to the system for maintaining traffic rules which will resolve the most common issues the vehicle drivers have to face on a day-to-day basis. The present invention relates to the system for maintaining traffic rules which will resolve the most common issues the vehicle drivers have to face on a day-to-day basis. The present invention relates to the system for maintaining traffic rules having an advantages of acquiring more effective information and facilitating determination on whether a traffic rule maintaining behavior of the driver exists.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :09/12/2021

(21) Application No.202131057425 A
(43) Publication Date : 07/01/2022

(54) Title of the invention : MULTI WALLED CARBON NANOTUBE BASED PRESSURE SENSOR FOR ELECTRONIC SKIN AND METHOD OF FABRICATION OF PRESSURE SENSOR

(51) International classification :A61B0005020500, A61B0005000000, H01L0051440000, H01L0051420000, G01L0019000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :
This invention relates to a Pressure sensor for electronic skin and in particular, this invention relates to a Multi walled carbon nanotube based Pressure sensor for electronic skin. More particularly, this present invention relates to the Pressure sensor for electronic skin wherein both Polyindole and Polypyrrole have high redox property which could facilitate higher conductivity of the composite. This invention also relates to a method of fabrication of pressure sensor for electronic skin. Furthermore, this invention also relates to a Pressure sensor for electronic skin in which the sensitivity is high; the weight and the structure is simple and the cost is low, easy to operate and easy to popularize.

No. of Pages : 24 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :10/12/2021

(21) Application No.202131057430 A
(43) Publication Date : 07/01/2022

(54) Title of the invention : A GREEN METHOD FOR SYNTHESIS OF SILVER NANOPARTICLES

(51) International classification :A61K0036899000, B22F0001000000, B22F0009240000, C09D0011520000, B01J0013000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
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(57) Abstract :
The present invention relates to a green method for synthesis of silver nanoparticles. More particularly, the present invention relates to the green method for synthesis of silver nanoparticles from Couch grass (Elymus repens). This invention relates to the green method for synthesis of silver nanoparticles because as they contain various organic functional molecules that may act as reducing and capping agents during interaction with metal salts. The present invention relates to the green method for synthesis of silver nanoparticles having a advantages of the generated silver nanoparticles are high in safety, strong in stability, good in dispersibility and uniform in particle size.

No. of Pages : 12 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :10/12/2021

(21) Application No.202131057431 A
(43) Publication Date : 07/01/2022

(54) Title of the invention : SINGLE PHASE TRANSFORMERLESS GRID CONNECTED SOLAR PHOTOVOLTAIC (PV) SYSTEM WITH AUTO-SYNCHRONIZER

(51) International classification :H02J0003380000, F03D0001040000, H02J0007350000, F03G0007000000, F03G0006040000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
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(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
The ancestral or the pre-existing method of energy generation leads to tremendous global warming and air pollution. The key to combat these climatic changes lies in the uses of renewable sources of energy. Solar energy is one such example of renewable source of energy. Though the demand of solar energy is at its peak but the method used for generation of power from it is not up to the mark and has several snags. This paper helps to overcome some of the drawbacks of generating power through solar energy in a more convenient way. In this paper we have exhibited a circuit in which the DC power would be converted into AC in stepped up form. This circuit contradicts the in used method of power transformation which would require several intermediate steps and a transformer, thus making it to be more economical and simpler way of power generation. In this project the inverter that is used is advanced form of H-bridge inverter made of four MOSFETs. The triggering of these MOSFETs is controlled by pulse generator and a NOT gate. The voltage is stepped up by the help of capacitor and then fed to the grid through auto synchronizer so that the frequency can be maintained as per the IE rule.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :22/11/2021

(21) Application No.202131053637 A
(43) Publication Date : 10/12/2021

(54) Title of the invention : SMART ELECTROLYTE DEVICE

(51) International classification	:A61B0005000000, A61M0005168000, A61M0005140000, A61M0005400000, G16H0010600000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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5)Shovam Patra
6)Sousam Kar
7)Shubhro Kundu

(57) Abstract :
In hospital, sick and injured people are taken for treatment. The doctors and nurses are readily available (24/7) there for admitting and attending patients. Intravenous (IV) saline solutions are incredibly common in healthcare commonly known saline. Saline solution is given to about 80 percent of the hospitalized patients, and the pouch or saline bag contains that saline. The saline bag is attached with the IV catheter by attaching an extension tube, and then attaching the 10mL saline flush to the end of the extension tube. While injected, the saline bag is pushed until a few drops of liquid come out of the bag, which prevents any air from entering into the patient body. In some hospitals due to improper maintenance and improper monitoring of patients, the saline bag gets empty and it is not changed in time. Sometimes nurses forgot to change the saline bag also. At that time the air enters into the veins of the patients, which is not good for our health, because it causes Air Embolism. So, aautomatic device has been designed which gives alarm to nurses or caretaker so that they can change it as early as possible to prevent hazardous condition of patient. Our project is a smart device which will help the nurses for monitoring the saline bag change with the level of saline present in it with smart indicators and alarm system. It will ensure the safety of patients in an efficient manner. We designed a prototype band which will detect the saline solution distance from the top portion of the saline bag and inform us with the help of sensor that how much saline is left in the saline bag in 3 different phases. All this notification will be forwarded to the respective in charge nurses and doctors.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :24/11/2021

(21) Application No.202131054354 A
(43) Publication Date : 10/12/2021

(54) Title of the invention : CLOUD BASED REAL-TIME VIBRATION AND TEMPERATURE MONITORING SYSTEM FOR WIND TURBINE

(51) International classification	:F03D0017000000, G07C0003000000, G05B0023020000, F03D0080000000, G07C0003080000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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3)Mr. Susovon Dutta
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5)Mr. Debanjan Chatterjee

(57) Abstract :
In the present scenario, Renewable Energy requires real time condition monitoring for their uninterrupted performance. Wind turbines are often subjected to huge mechanical and thermal stresses which in turn results into causing faults. In this project, a cloud based real time monitoring system (CRMS) has been discussed for the early detection of a problem and identify the need for maintenance before a wind turbine fails. CRMS associated with vibration sensor and temperature sensor can easily detect the fault and alarming system indicates the operator personnel about the abnormal state of the motors in the industrial plant. With real-time data monitoring system and LabVIEW, it enables the detailed spectral analysis of the system. A wireless sensor networks are included in this research work for a real-time condition monitoring. Therefore, the authors of this proposed work have developed a prototype which can provide smart maintenance to elongate the life of wind turbine and prevent the harm of nearby equipments.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :25/11/2021

(21) Application No.202131054365 A
(43) Publication Date : 10/12/2021

(54) Title of the invention : QUICK ACCIDENT DETECTION AND RESPONSE SYSTEM(GO SAFE)

(51) International classification	:G08B0025000000, H04W0004900000, G08B0025010000, G06Q0050300000, G06Q0050260000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(57) Abstract :
One of the primary reasons for annual fatality is accounted for by traffic accidents, the count matching a whelming 1.25 million. Additive to multiple other primitive factors, Emergency Care shares the largest onus in post-crash response. Post-crash response largely depends upon a few important time-sensitive actions. Quick Accident Response System (Go Safe) forms the basis of measures initiated to address the time-sensitive post-crash response system, being proposed in this patent filing. The pre-requisites form anemergency traffic assist model which sustains immediate Emergency Services at the very urgent hours of the accident. A four-point Emergency Response Unit (ERU) gets activated using Go Safe, namely, a. the multi-functional accelerometer seconded by the Ultrasonic sensors immediately generates a notification, b. Location of the accident site using GPS is transmitted along with the notification, c. Video footage of the accident, and d. Driver details fetched from the master database, get appended with the main notification. The four-point ERU forms part of the master application, which is pre-loaded with the driver database. Points ‘a’ and ‘c’ are designed using Arduino and smart sensors, whereas point ‘b’ is governed using AT commands aiding the communication using emergency SMS alerts. The applications also has provisions for the pedestrians to send actual image and video feed to the Emergency Services.

No. of Pages : 12 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :26/11/2021

(21) Application No.202131054636 A
(43) Publication Date : 10/12/2021

(54) Title of the invention : DEEP CNN BASED AUTOMATIC BENGAL TIGER DETECTION AND IDENTIFICATION (ABTDI)

(51) International classification	:G06K0009000000, G06K0009620000, G06K0009460000, G06N0003040000, B64C0039020000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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(72)**Name of Inventor :**
1)Dr. Suman Bhattacharya
2)Dr. Mahamuda Sultana
3)Dr. Santanu kr.Sen
4)Mr. Amrut Ranjan Jena

(57) Abstract :
A system for individual identification and distinction of the Royal Bengal tiger (Panthera Tigris) demands absolute attention; not only for monitoring the tiger population but also for saving the precious lives of those workers who generate the approximate tiger count present in a particular topology like Sundarban in West Bengal, India. In this paper, an innovative and effective proposal is presented for identification of individual Bengal Tigers using an autonomous or manually controlled Quad coptersystem depending of the choice of the authority. The system comprises of a Quad copter, Raspberry pi 4 B models, GPS unit and thermal detector.This Detection Model searches for tigers and then the flank (the body part which contains the stripes) of the detected tiger will be passed through a Fine-tuned state-of-the-art network. The system based on deep CNN detects the uncommon features for individual tigers in a particular forest. The proposed system enhances the accuracy of tiger detection technique that is verified by human experts. It also reduces the animal attack prone accidents.

No. of Pages : 17 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :02/12/2021

(21) Application No.202131055782 A
(43) Publication Date : 07/01/2022

(54) Title of the invention : IMPACT OF ELECTRIC SPRING FOR IMPROVEMENT IN POWER QUALITY AND STABILITY OF POWER SYSTEM"

(51) International classification	:H02J0003140000, H02J0003000000, G06Q0030020000, G06Q0010060000, G06Q0050060000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
(62) Divisional to Application Number Filing Date	:NA :NA

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Address of Applicant : NA
(72)**Name of Inventor :**
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Address of Applicant :Guru Nanak Institute of Technology 157/F, Nilgunj Road, Panihati, Sodepur,Kolkata-700114,West Bengal, INDIA ---------- ----------
2)DR. BARNALI KUNDU
Address of Applicant :Guru Nanak Institute of Technology 157/F, Nilgunj Road, Panihati, Sodepur,Kolkata-700114 West Bengal, INDIA ---------- ----------
3)MR. SHYAMAL KUMAR ROY,
Address of Applicant :Guru Nanak Institute of Technology 157/F, Nilgunj Road, Panihati, Sodepur,Kolkata-700114 West Bengal, INDIA ---------- ----------
4)MS. PRIYANKA DUTTA
Address of Applicant :Guru Nanak Institute of Technology 157/F, Nilgunj Road, Panihati, Sodepur,Kolkata-700114 West Bengal, INDIA ---------- ----------

(57) Abstract :
The innovation aims at effective demand-side response by modulating the non-critical loads in response to the fluctuations in intermittent renewable energy sources. Demand side management (DSM) is an approach of consumer demand modification for energy consumption. It aims at encouraging the consumer to use less energy during the peak demand hours or shift the time of energy use to off-peak demand time. DSM is popular for various issues. It is beneficial for cost reduction, environmental and social improvement, increasing the reliability of network through reducing demand, and improving the electricity markets.

No. of Pages : 13 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :02/12/2021

(21) Application No.202131055786 A
(43) Publication Date : 07/01/2022

(54) Title of the invention : METHOD OF IDENTIFICATION OF DISEASE OF CROPS

(51) International classification :H04L0029080000, G06Q0050020000, H01Q0001220000, G01K0001020000, A01M0007000000
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

(71)**Name of Applicant :**
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Address of Applicant :157/F, Nilgunj Road, Panihati, Sodepur, Kolkata-700114, West Bengal, India, ---------- ----------
Name of Applicant : NA
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(72)**Name of Inventor :**
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3)MR. ASHESH ROY CHOUDHURI,
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4)MR. ANKAN GOSWAMI
Address of Applicant :Guru Nanak Institute of Technology 157/F, Nilgunj Road, Panihati, Sodepur, Kolkata-700114, West Bengal, India, ---------- ----------

(57) Abstract :
This invention relates to a method of identification of disease of crops and in particular, this invention relates to a fast method of identification of disease of crops wherein IoT allows to embed multiple sensors to provide the information. More particularly, this present invention relates to the method identification of disease of crops wherein real-time images from the agricultural field will be collected by the camera placed in the IoT-based smart device. Furthermore, this invention also relates to a method of identification of disease of crops which is simple in process, easy to operate, low in preparation cost.

No. of Pages : 20 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/03/2018

(21) Application No.201831009710 A
(43) Publication Date : 13/04/2018

(54) Title of the invention : A REMOTE CONTROL SYSTEM FOR CONTROLLING A SURVEILLANCE VEHICLE INCLUDING A CAMERA WITH A SMART PHONE

(51) International classification	:G05D1/10	(71)**Name of Applicant :**
(31) Priority Document No	:NA	**1)GURU NANAK INSTITUTE OF TECHNOLOGY**
(32) Priority Date	:NA	Address of Applicant :157/F NILGUNJ ROAD, KOLKATA-700114, WEST BENGAL, INDIA
(33) Name of priority country	:NA	(72)**Name of Inventor :**
(86) International Application No	:NA	**1)MR. SUDEEP GHOSH**
Filing Date	:NA	**2)MS.TRISHITA GHOSH,**
(87) International Publication No	: NA	**3)MS. BAISAKHI DAS**
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
A remote control system for controlling a surveillance vehicle including a camera with a smart phone comprising: a smart phone programmed with an application adapted to communicate with a programmable microcontroller located on the vehicle to: receive sensor data from the programmable microcontroller defining speed and steering direction of the vehicle and transmit control signals to the programmable microcontroller for controlling the speed, direction of the vehicle and camera elevation on the vehicle, a surveillance vehicle comprising: a radio antenna adapted for communication with the smart phone, a camera, compass unit, a GPS unit, a power source, a plurality of DC drive motor and a programmable microcontroller (including sensors).

No. of Pages : 23 No. of Claims : 1

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/03/2018

(21) Application No.201831009702 A
(43) Publication Date : 06/04/2018

(54) Title of the invention : A SYSTEM FOR DNA SEQUENCE ALIGNMENT.

(51) International classification	:C12Q 1/68
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

(71)**Name of Applicant :**
1)GURU NANAK INSTITUTE OF TECHNOLOGY
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(72)**Name of Inventor :**
1)MR. MOLOY DHAR
2)PROF.(DR.) SANTANU KUMAR SEN

(57) Abstract :
This invention relates to a Biometric authentication apparatus and in particular, this invention relates to a Biometric authentication apparatus wherein hand biometrics applied to images acquired from a mobile device. This invention also relates to a Biometric authentication apparatus which can identifying individuals based on features extracted from hand pictures obtained with a low-quality camera embedded on a mobile device. Furthermore, this invention also relates to a Biometric authentication apparatus wherein since the authentication is performed through a combination of biometric information and context information that are acquired, reliability and security of the authentication can be heightened.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/03/2018

(21) Application No.201831009703 A
(43) Publication Date : 06/04/2018

(54) Title of the invention : A SYSTEM FOR DNA SEQUENCE ALIGNMENT

(51) International classification	:C12Q 1/68
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

(71)**Name of Applicant :**
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(72)**Name of Inventor :**
1)PROF.(DR.) SANTANU KUMAR SEN
2)MR.DEBRAJ ROY

(57) Abstract :
This invention relates to a system for DNA Sequence Alignment and in particular, this invention relates to a system for DNA Sequence Alignment in which the Content-to-Address Memory (CTAM) and Augmented Binary Search Processor (ABSP) that uses parallel pipelined architecture. This invention relates to a system for DNA Sequence Alignment which focuses on the hardware-based solution to this problem by utilizing the broad concept of Associative Memory (AM). Furthermore, this invention also relates to a system for DNA Sequence Alignment which has the beneficial effects of having remarkable high-speed, saving power cost, reducing labor intensity, and having safety and reliability and low cost.

No. of Pages : 26 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/03/2018

(21) Application No.201831009704 A
(43) Publication Date : 06/04/2018

(54) Title of the invention : A ROBOTIC SYSTEM HAVING ACCELEROMETER SENSOR.

(51) International classification	:G06F 3/041	(71)**Name of Applicant :** **1)GURU NANAK INSTITUTE OF TECHNOLOGY** Address of Applicant :157/F NILGUNJ ROAD, KOLKATA-700114, WEST BENGAL, INDIA
(31) Priority Document No	:NA	(72)**Name of Inventor :** **1)RISHI RAJ SINGH** **2)RITUPARNA DAS** **3)KOUSHIK PAL**
(32) Priority Date	:NA	
(33) Name of priority country	:NA	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
This invention relates to a robotic system having accelerometer sensor and in particular, this invention relates to a robotic system which can perform different task on the bases of human hand gesture. This invention also relates to a robotic system which consists of Microcontroller, DC motor and Accelerometer Sensor. Furthermore, this invention also relates to a robotic system has the advantages of being simple in structure, flexible to control, small in size, convenient to carry, and high in propulsion power in each posture.

No. of Pages : 21 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/03/2018

(21) Application No.201831009705 A
(43) Publication Date : 06/04/2018

(54) Title of the invention : DUAL CONDENSER DISTILLATION SYSTEM

(51) International classification	:C02F 1/04	(71)**Name of Applicant :** **1)GURU NANAK INSTITUTE OF TECHNOLOGY** Address of Applicant :157/F NILGUNJ ROAD, KOLKATA-700114, WEST BENGAL, INDIA
(31) Priority Document No	:NA	
(32) Priority Date	:NA	
(33) Name of priority country	:NA	(72)**Name of Inventor :** **1)ADHISH KUMAR HAKRABARTY**
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
A distillation system comprising: an evaporation conduit; an intake conduit and a return conduit in communication between a source of solution and the evaporation conduit, communication of the intake conduit and the return conduit with the evaporation conduit being unrestricted; adual condensing conduit with individually connected pressure vaives; a distillate conduit in communication with the condensing conduit; a transfer system connecting the evaporation conduit and the condensing conduit for transferring distillate vapour from the evaporation conduit to the condensing conduit to condense the distillate vapour in the condensing conduit; and a vacuum pump connected to at least one of the evaporation and condensing conduits for evacuating air from the evaporation and condensing conduits.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/03/2018

(21) Application No.201831009706 A
(43) Publication Date : 06/04/2018

(54) Title of the invention : LOW LATENCY WAVELENGTH-DIVISION MULTIPLEXING SYSTEM COUPLED WITH A SHORT RANGE SURFACE PLASMON POLARITON WAVEGUIDE.

(51) International classification	:G02B6/293	(71)**Name of Applicant :**
(31) Priority Document No	:NA	**1)GURU NANAK INSTITUTE OF TECHNOLOGY**
(32) Priority Date	:NA	Address of Applicant :157/F NILGUNJ ROAD, KOLKATA-700114, WEST BENGAL, INDIA
(33) Name of priority country	:NA	(72)**Name of Inventor :**
(86) International Application No	:NA	**1)MRS. BAPITA ROY**
Filing Date	:NA	**2)MRS. PARAMITA BANERJEE**
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
A low latency wavelength-division multiplexing system coupled with a short range surface plasmon polariton waveguide, comprising: a metal substrate, which has atop surface; a hollow metallic block periodic structure, wherein the hollow metallic block periodic structure is operable in a predetermined working frequency band and defines a forbidden band regime; the hollow metallic block periodic structure comprising a plurality of unit cell blocks that is spaced from each other by a predetermined interval, the unit cell blocks being arranged at a sub-wavelength period in a one-dimensional line-up direction to line up on the top surface of the metal substrate, each of the unit cell blocks generating an electromagnetic field distribution in the working frequency band; a low frequency spoof surface plasmon polariton transmission mode being introduced in the forbidden band regime of the hollow metallic block periodic structure; wherein each of the unit cell blocks comprises a channel space; and under the low frequency spoof surface plasmon polariton transmission mode, the hollow metallic block periodic structure provides a structure of an antenna, the electromagnetic field distribution of each of the unit cell blocks being mostly confined in a channel space of the unit cell block; each of the unit cell blocks comprises: a body; a penetration section, which penetrates through the body by extending in a horizontal penetration direction so as to define the channel space in the body, the channel space being delimited by a left section, a right section opposite to the left section, and a horizontal top section between the left section and the right section; and an open slot, which is formed in the horizontal top section by extending in the horizontal penetration direction so as to divide the horizontal top section into a left top section and a right top section.

No. of Pages : 15 No. of Claims : 2

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/03/2018

(21) Application No.201831009707 A
(43) Publication Date : 06/04/2018

(54) Title of the invention : LOW-FREQUENCY HEATING PROCESS IN THE TRANSFORMER.

(51) International classification	:H02M 5/16	(71)**Name of Applicant :** **1)GURU NANAK INSTITUTE OF TECHNOLOGY** Address of Applicant :157/F NILGUNJ ROAD, KOLKATA-700114, WEST BENGAL, INDIA
(31) Priority Document No	:NA	
(32) Priority Date	:NA	
(33) Name of priority country	:NA	(72)**Name of Inventor :** **1)SUMAN GHOSH** **2)SHYAMAL ROY**
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
The present invention relates to a low-frequency heating process in the transformer. More particularly, the present invention relates to the low-frequency heating process in the transformer while vacuum by using hot oil circulation. The present invention relates to the low-frequency heating process in the transformer_which-has-the-advantages of-stable-and-reliable operation.

No. of Pages : 16 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/03/2018

(21) Application No.201831009708 A
(43) Publication Date : 06/04/2018

(54) Title of the invention : PARABOLIC MIRROR BASED SOLAR LIGHT TUNNEL SYSTEM.

(51) International classification	:F21W 131/101	(71)**Name of Applicant :** **1)GURU NANAK INSTITUTE OF TECHNOLOGY** Address of Applicant :157/F NILGUNJ ROAD, KOLKATA-700114, WEST BENGAL, INDIA
(31) Priority Document No	:NA	(72)**Name of Inventor :** **1)MR. SISIR MAZUMDER** **2)MR. SUSOVAN DUTTA** **3)MS. MADHUMITA CHAKRABORTY** **4)MS. RIKTA MAJUMDER**
(32) Priority Date	:NA	
(33) Name of priority country	:NA	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
This invention relates to a Parabolic Mirror based Solar Light tunnel system and in particular, this invention relates to a Parabolic Mirror based Solar Light tunnel system in which light energy is distributed through branch-tunnels within the room. This invention relates to a Parabolic Mirror based Solar Light tunnel system wherein the Solar light tunnels will supply sunlight to the residential buildings and homes. Furthermore, this invention also relates to a Parabolic Mirror based Solar Light tunnel system which has the beneficia1 effects of having saving cost and having safety and reliability.

No. of Pages : 14 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/03/2018

(21) Application No.201831009709 A
(43) Publication Date : 06/04/2018

(54) Title of the invention : ANTIOXIDANT EXTRACT FROM PEANUT HULLS.

(51) International classification :C09K15/34,
(31) Priority Document No :NA
(32) Priority Date :NA
(33) Name of priority country :NA
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

(71)**Name of Applicant :**
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Address of Applicant :157/F NILGUNJ ROAD,PANIHATI, KOLKATA-700114, WEST BENGAL, INDIA
(72)**Name of Inventor :**
1)DR. KAKALI BANDYOPADHYAY
2)SHAIREE GANGULY

(57) Abstract :
A method for the extracting polyphenol from peanut hulls comprising the steps of: collectingPeanut hulls followed by freezing, drying and ground into fine powder; obtaining extract, by dissolving the peanut hulls (0.5 g) in 5mL methanol for 24 hours by maceration at a refrigerated temperature; filtering the extract and the residue was extracted again under same conditions for two times; and conductingevaporation for the collected filtrates in a Rotary Vacuum Evaporator at 35°C.

No. of Pages : 18 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/03/2018

(21) Application No.201831009700 A
(43) Publication Date : 06/04/2018

(54) Title of the invention : SOLAR OPERATED MICROCONTROLLER BASED AUTOMATED CRICKET-PITCH SOIL FLATTER MACHINE

(51) International classification	:A01B49/06	(71)**Name of Applicant :**
(31) Priority Document No	:NA	**1)GURU NANAK INSTITUTE OF TECHNOLOGY**
(32) Priority Date	:NA	Address of Applicant :157/F, NILGUNJ ROAD, KOLKATA-700114, WEST BENGAL, INDIA
(33) Name of priority country	:NA	(72)**Name of Inventor :**
(86) International Application No	:NA	**1)MR. SOURISH MITRA**
Filing Date	:NA	**2)PROF.(DR.) SANTANU KUMAR SEN**
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
This invention relates to a Solar Operated Microcontroller Based Automated Cricket-pitch Soil Flatter machine and in particular, this invention relates to a Soil Flatter machine which is flattening land or breaking up large clumps of soil. More particularly, this present invention relates a soil flatter machine which is based on microprocessor. Furthermore, this invention also relates to the machine which has the beneficial effects of having saving manpower cost, reducing labor intensity, and having safety and reliability.

No. of Pages : 11 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/03/2018

(21) Application No.201831009701 A
(43) Publication Date : 06/04/2018

(54) Title of the invention : A SYSTEM FOR ALIGNING THE GENOMIC SEQUENCES.

(51) International classification	:C12Q 1/68	(71)**Name of Applicant :** **1)GURU NANAK INSTITUTE OF TECHNOLOGY** Address of Applicant :157/F, NILGUNJ ROAD, KOLKATA-700114, WEST BENGAL, INDIA
(31) Priority Document No	:NA	(72)**Name of Inventor :** **1)MS. IPSITA SAHA** **2)PROF.(DR.) SANTANU KUMAR SEN**
(32) Priority Date	:NA	
(33) Name of priority country	:NA	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
This invention relates to a system for aligning the genomic sequences and in particular, this invention relates to a system for aligning the genomic sequences in which the Raspberry Pi based microcomputer is used that can detect cancerous genomic sequence. This invention relates to a system for aligning the genomic sequences wherein Linux kernel is secure in the terms of any malware attack or viruses and worms. Furthermore, this invention also relates to a system for aligning the genomic sequences which has the beneficial effects of having is light-weight and compact,and having safety and reliable.

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