(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.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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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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(72)**Name of Inventor :**
1)AMRUT RANJAN JENA
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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(72)**Name of Inventor :**
1)MOLOY DHAR
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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1)MR.SOURISH MITRA
2)MR.SANDIP KUMAR KARMAKAR
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.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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(72)**Name of Inventor :**
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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(72)**Name of Inventor :**
1)DR.SUPARNA BISWAS
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.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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1)DR.PARAMITA BANERJEE
2)DR.SUNIPA ROY
3)DR.KAUSHIK ROY
4)PALASRI DHAR
5)OINDRILA DAS

(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 :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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2)CHANDRIMA BANERJEE
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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2)PALASRI DHAR
3)OINDRILA GHATAK
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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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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(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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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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(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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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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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 :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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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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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
Filing Date	:NA
(87) International Publication No	: NA
(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)SUPARNA KARMAKAR

(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