

(12) PATENT APPLICATION PUBLICATION

(21) Application No.448/KOL/2015 A

(19) INDIA

(22) Date of filing of Application :24/04/2015

(43) Publication Date : 05/06/2015

(54) Title of the invention : ENHANCEMENT OF THERMAL CONDUCTIVITY THROUGH BEST NANOPARTICLE AND LIQUID PAIRING

(51) International classification	:C09K5/00	(71)Name of Applicant :
(31) Priority Document No	:NA	<b>1)Centurian University of Technology &amp; Management</b>
(32) Priority Date	:NA	<b>(CUTM)</b>
(33) Name of priority country	:NA	Address of Applicant :HIG-5, Phase - 1, BDA Duplex
(86) International Application No	:NA	Pokhariput, Khurda District Bhubaneswar, ODISHA - 751020
Filing Date	:NA	(72)Name of Inventor :
(87) International Publication No	: NA	<b>1)Dr. Ashok Misra</b>
(61) Patent of Addition to Application Number	:NA	<b>2)Dr. Saroj Kumar Mishra</b>
Filing Date	:NA	<b>3)Dr. Pradeep Kumar Tripathy</b>
(62) Divisional to Application Number	:NA	<b>4)Dr. Damera Nageswara Rao</b>
Filing Date	:NA	

(57) Abstract :

The present invention relates to a method of calculating thermal conductivity of the nano-fluids. More specifically, the method relates to measurement of the increased thermal conductivity of nano-fluids considering the thermal conductivities affected by appropriate parameters like radius, surface area, concentration, and the temperature of medium due to applied electric charge to the thermal conducting nano-fluid.

No. of Pages : 26 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.455/KOL/2015 A

(19) INDIA

(22) Date of filing of Application :25/04/2015

(43) Publication Date : 05/06/2015

(54) Title of the invention : AUTOMATED MANUFACTURING OF AGRICULTURAL IMPLEMENTS

(51) International classification

:B24B3/46

(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)Centurian University of Technology & Management (CUTM)**

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(72)Name of Inventor :

**1)Mir Sadit Ali**

**2)Aurobindo Sahu**

(57) Abstract :

The present invention relates to a method of manufacturing agricultural implements on large scale. More specifically, the said method comprises of a computer aided process that collects and analyzes the required information and is also capable in designing appropriate model sketches. Further the process utilizes verification and scheduling device for verifying and scheduling the process for manufacturing of agricultural implement.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.561/KOL/2015 A

(19) INDIA

(22) Date of filing of Application :22/05/2015

(43) Publication Date : 05/06/2015

(54) Title of the invention : COMPACT SOLAR POWERED WATER PUMPING SYSTEM

(51) International classification :F04B17/00  
(31) Priority Document No :NA  
(32) Priority Date :NA  
(33) Name of priority country :NA  
(86) International Application No :NA  
Filing Date :NA  
(87) International Publication No : NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :  
**1)CENTURION UNIVERSITY OF TECHNOLOGY & MANAGEMENT (CUTM)**  
Address of Applicant :HIG-5, Phase -1, BDA Duplex  
Pokhariput, Khurda Dt., Bhubaneswar Orissa  
(72)Name of Inventor :  
**1)Shiv Sankar Das**  
**2)Udaya Kumar Sahoo**

(57) Abstract :

The present invention relates to a compact solar powered water pumping system that comprises of, a moving means used for transportation from one location to another; plurality of solar panels mounted on the moving means; a foldable means provided in between the plurality of solar panels; and a pump used for pumping water, mounted on the moving means. Present invention relates to compact solar powered water pumping system which is mounted on the movable means. More specifically the direction of the solar panels can be adjusted to sunlight angle for optimum power generation of electric power that can be utilized for powering water pump. Further, the present invention offers an economic, easy to carry, portable mobile powering unit that can be carried from one place to other for powering water pumps.

No. of Pages : 17 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.574/KOL/2015 A

(19) INDIA

(22) Date of filing of Application :25/05/2015

(43) Publication Date : 05/06/2015

(54) Title of the invention : PROCESS FOR SUPERCRITICAL AND SUBCRITICAL FLUID CO2 EXTRACTION OF FRAGRANCES FROM CHAMPA FLOWERS

(51) International classification :A61K8/41  
(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)CENTURION UNIVERSITY OF TECHNOLOGY & MANAGEMENT (CUTM)**  
Address of Applicant :HIG-5, Phase -1, BDA Duplex  
Pokhariput, Khurda Dt., Bhubaneswar Orissa  
(72)Name of Inventor :  
**1)Shashikant Tewary**

(57) Abstract :

The present invention relates to a method of extracting useful compounds from selected species of plants. More specifically, the said method comprises delivering an extraction fluid from a delivery system to a heating means. Further, the method involves treating the plant species and the residual plant species with the extraction fluid in an extractor at the supercritical and sub-critical conditions respectively; separating and collecting the useful compounds in a first and second collecting means respectively thereby increasing the extraction rate of the useful compound.

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



(12) PATENT APPLICATION PUBLICATION

(21) Application No.612/KOL/2015 A

(19) INDIA

(22) Date of filing of Application :31/05/2015

(43) Publication Date : 05/06/2015

(54) Title of the invention : IDENTIFICATION OF HYDROCARBON LOCALES OF AN UNEXPLORED BASIN USING SPACE INPUTS AND GIS

(51) International classification

:G01V9/00

(31) Priority Document No

:NA

(32) Priority Date

:NA

(33) Name of priority country

:NA

(86) International Application No

:PCT//

Filing Date

:01/01/1900

(87) International Publication No

:NA

(61) Patent of Addition to Application Number

:NA

Filing Date

:NA

(62) Divisional to Application Number

:NA

Filing Date

:NA

(71)Name of Applicant :

**1)CENTURION UNIVERSITY OF TECHNOLOGY & MANAGEMENT (CUTM)**

Address of Applicant :HIG-5, Phase -1, BDA Duplex  
Pokhariput, Khurda Dt., Bhubaneswar

(72)Name of Inventor :

**1)Prafulla Kumar Panda**

(57) Abstract :

The present invention relates to a method of identification of natural resources or hydrocarbon locales from an unexplored basin. More specifically the present invention identifies geographic anomalies based on the state of generated thematic layers using geological information. Further, architectural information of the subsurface is also collected which generates a layout that can be used to identify the natural resources or hydrocarbon locales.

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

(12) PATENT APPLICATION PUBLICATION  
(19) INDIA

(21) Application No.698/KOL/2015 A

(22) Date of filing of Application :23/06/2015

(43) Publication Date : 07/08/2015

(54) Title of the invention : CONTROLLER DESIGN OF SEPIC CONVERTER USING MODEL REDUCTION

(51) International classification :H02M7/217  
(31) Priority Document No :NA  
(32) Priority Date :NA  
(33) Name of priority country :NA  
(86) International Application No :PCT//  
Filing Date :01/01/1900  
(87) International Publication No : NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :  
1)CENTURION UNIVERSITY OF TECHNOLOGY &  
MANAGEMENT (CUTM)  
Address of Applicant :HIG-5, Phase -1, BDA Duplex  
Pokhariput, Khurda Dt., Bhubaneswar, Orissa  
(72)Name of Inventor :  
1)Binod Kumar Padhi

(57) Abstract :

The present invention relates to a method of designing a feedback controller for higher order converter using model reduction technique. More specifically, the said method comprises of deriving the system functions in mathematical model of a physical high order converter, followed by reducing the system function of higher order into a lower order. Further, a compensator is designed for the reduced model for improved steady state and transient response.

No. of Pages : 29 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No. 707/KOL/2015 A

(19) INDIA

(22) Date of filing of Application :29/06/2015

(43) Publication Date : 07/08/2015

(54) Title of the invention : A HIGH PERFORMANCE BRIDGELESS AC-DC-DC POWER FACTOR CORRECTOR FOR LED DRIVER APPLICATION

(51) International classification	:H02M7/217	(71)Name of Applicant :
(31) Priority Document No	:NA	1)CENTURION UNIVERSITY OF TECHNOLOGY & MANAGEMENT (CUTM)
(32) Priority Date	:NA	Address of Applicant :HIG-5, Phase -1, BDA Duplex
(33) Name of priority country	:NA	Pokhariput, Khurda Dt., Bhubaneswar Orissa
(86) International Application No	:PCT//	(72)Name of Inventor :
Filing Date	:01/01/1900	1)Satya Narayan Padhy
(87) International Publication No	: NA	2)Sarika Kalra
(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 high performance bridgeless DC-DC power-factor correcting circuit. More specifically, the bridgeless DC-DC power factor corrector converter comprises of plurality of passive elements like capacitors, inductors and thereof. Further, the said plurality of active elements like diodes, an electromechanical device like switching means and atleast two additional diodes are utilized for improving the power factor of the circuit for load driving.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.742/KOL/2015 A

(19) INDIA

(22) Date of filing of Application :08/07/2015

(43) Publication Date : 07/08/2015

(54) Title of the invention : COMPOSITE MATERIALS FROM LAYERED SILICATE CLAY AND METHOD OF MAKING GRINDING WHEELS USING THE SAME

(51) International classification	:C09D7/12	(71)Name of Applicant :
(31) Priority Document No	:NA	1)CENTURION UNIVERSITY OF TECHNOLOGY & MANAGEMENT (CUTM)
(32) Priority Date	:NA	Address of Applicant :CENTURION UNIVERSITY OF TECHNOLOGY & MANAGEMENT (CUTM) HIG-5, Phase -1, BDA Duplex Pokhariput, Khurda Dt., Bhubaneswar Orissa
(33) Name of priority country	:NA	(72)Name of Inventor :
(86) International Application No	:PCT//	1)Annepu Lakshumu Naidu
Filing Date	:01/01/1900	2)Damera Nageswara Rao
(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 method of preparing nanocomposite grinding wheel using layered silicate-epoxy nanocomposite material. More specifically the montmorillonite-type-clay is modified into organo clay which is cured in presence of the epoxy resin facilitating for a crosslinking reaction between the organo clay and the epoxy resin at lower temperatures resulting in a nanocomposite with strong adhesion which is dispersed in a polymer tube comprising of styrene monomer. Further benzoyl peroxide is added to the mixture and is heated followed by crushing. The crushed polymerized material is heated in an vacuum oven for a certain period of time.

No. of Pages : 25 No. of Claims : 10



(12) PATENT APPLICATION PUBLICATION

(21) Application No.749/KOL/2015 A

(19) INDIA

(22) Date of filing of Application :10/07/2015

(43) Publication Date : 07/08/2015

(54) Title of the invention : SMART CUSTOMIZED TEACHING DEVICE

(51) International classification	:G06F3/0488	(71)Name of Applicant :
(31) Priority Document No	:NA	1)CENTURION UNIVERSITY OF TECHNOLOGY & MANAGEMENT (CUTM)
(32) Priority Date	:NA	Address of Applicant :HIG-5, Phase -1, BDA Duplex
(33) Name of priority country	:NA	Pokhariput, Khurda Dt., Bhubaneswar Orissa
(86) International Application No	:PCT// /	(72)Name of Inventor :
Filing Date	:01/01/1900	1)Dr. Prajna Pani
(87) International Publication No	: NA	2)Sashi Bhushan Maharana
(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 smart interactive teaching aid having customized teaching information useful for improved learning capability. More specifically, the device helps the student in real-time scenarios by review, practice exams, educational games and other related activities that will automatically be recorded in the device for further preview. Further, the invention provides more interactive learning rather than routine knowledge dissemination using a smart & advanced interactive learning device.

No. of Pages : 19 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application : 14/07/2015

(21) Application No. 756/KOL/2015 A ✓

(43) Publication Date : 11/09/2015 ✓

(54) Title of the invention : MIMO SYSTEM MODEL ADAPTABLE FOR DIFFERENT CHANNEL CONFIGURATIONS ✓

(51) International classification	:H04B7/06	(71)Name of Applicant :
(31) Priority Document No	:NA	1)CENTURION UNIVERSITY OF TECHNOLOGY & MANAGEMENT (CUTM)
(32) Priority Date	:NA	Address of Applicant :HIG-5, Phase -1, BDA Duplex
(33) Name of priority country	:NA	Pokhariput, Khurda Dt., Bhubaneswar Orissa India
(86) International Application No	:PCT//	(72)Name of Inventor :
Filing Date	:01/01/1900	1)Abinash Gaya
(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 wireless communication system that comprises of Multi input Multi output (MIMO) means. More specifically, the Multi input multi output (MIMO) means includes plurality of transmitting and receiving means and a channel utilized for the multi input and multi output means. Further, the MIMO is adaptable for different channel configurations as a common platform.

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



(12) PATENT APPLICATION PUBLICATION

(21) Application No.1181/KOL/2015 A

(19) INDIA

(22) Date of filing of Application :20/11/2015

(43) Publication Date : 04/12/2015

(54) Title of the invention : SOLAR DRYER

(51) International classification

:F24J2/00

(31) Priority Document No

:NA

(32) Priority Date

:NA

(33) Name of priority country

:NA

(86) International Application No

:PCT///

Filing Date

:01/01/1900

(87) International Publication No

:NA

(61) Patent of Addition to Application Number

:NA

Filing Date

:NA

(62) Divisional to Application Number

:NA

Filing Date

:NA

(71)Name of Applicant :

**1)CENTURION UNIVERSITY OF TECHNOLOGY & MANAGEMENT (CUTM)**

Address of Applicant :HIG-5, Phase -1, BDA Duplex  
Pokhariput, Khurda Dt., Bhubaneswar-751020 Orissa India

(72)Name of Inventor :

**1)Shiv Sankar Das**

**2)Biswajit Nayak**

**3)Udaya Kumar Sahoo**

**4)Debashree Behera**

(57) Abstract :

The present invention relates to an energy efficient solar dryer for drying foods, vegetables, seafood, edibles or organic foods and thereof. More specifically, the present invention eliminates moisture and provides sufficient drying in a reliable, hygienic and economic way with all three modes of heat transfer viz., conduction, convection and radiation. Further, the present invention eliminates the use of auxiliary heaters by taking advantage of direct sunlight falling over the dryer that is made of a good heat conducting material to heat air within the drying room.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.1182/KOL/2015 A

(19) INDIA

(22) Date of filing of Application :20/11/2015

(43) Publication Date : 04/12/2015

(54) Title of the invention : RAPID CURING AGENT

(51) International classification

:C04B28/14

(31) Priority Document No

:NA

(32) Priority Date

:NA

(33) Name of priority country

:NA

(86) International Application No

:PCT//

Filing Date

:01/01/1900

(87) International Publication No

:NA

(61) Patent of Addition to Application Number

:NA

Filing Date

:NA

(62) Divisional to Application Number

:NA

Filing Date

:NA

(71)Name of Applicant :

**1)CENTURION UNIVERSITY OF TECHNOLOGY & MANAGEMENT (CUTM)**

Address of Applicant :HIG-5, Phase -1, BDA Duplex  
Pokhariput, Khurda Dt., Bhubaneswar-751020 Orissa India

(72)Name of Inventor :

**1)SASANK SEKHAR HOTA**

(57) Abstract :

The present invention relates to rapid curing of concrete in a very less amount of time. More specifically, the present invention improves the bond strength between reinforcing bars and concrete at a very early age utilizing reduced energy consumption and cement. Further, the present invention is very economical compared to the existing curing processes and utilizes the same equipment used for steam curing with slight modifications.

No. of Pages : 12 No. of Claims : 9



(12) PATENT APPLICATION PUBLICATION

(21) Application No.201631029622 A

(19) INDIA

(22) Date of filing of Application :30/08/2016

(43) Publication Date : 07/10/2016

(54) Title of the invention : Auxiliary Powered Household Appliance

(51) International classification	:H02J17/00	(71)Name of Applicant :
(31) Priority Document No	:NA	<b>1)Centurion University of Technology and Management</b>
(32) Priority Date	:NA	Address of Applicant :17, Forest park, Bhubaneswar, Khurda
(33) Name of priority country	:NA	District - 751009, Odisha, India
(86) International Application No	:PCT//	(72)Name of Inventor :
Filing Date	:01/01/1900	<b>1)Udaya Kumar Sahoo</b>
(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 :

An improved auxiliary powered household appliance comprises of BLDC motors, main source AC grid electric supply, an auxiliary solar DC electric power, where the household appliance can switch between the two power sources either automatically or upon manual selection of type of power supply (grid electric power or solar power) by the user. The solar energy is captured by a solar panel and controlled to provide a constant rate of 12V DC power output for the operation of household appliance. Also the solar energy may be stored in a battery. The grid electric AC power is converted to DC power output and supplied to the appliance. The auxiliary powered household appliance is economical and practical and is advantageous in saving the grid electricity and also beneficial in areas of power interruption.

No. of Pages : 14 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.201631029623 A

(19) INDIA

(22) Date of filing of Application :30/08/2016

(43) Publication Date : 07/10/2016

(54) Title of the invention : Fluid Heating Solar Dehydrator

(51) International classification	:F26B3/28	(71)Name of Applicant :
(31) Priority Document No	:NA	1)CENTURION UNIVERSITY OF TECHNOLOGY & MANAGEMENT (CUTM)
(32) Priority Date	:NA	Address of Applicant :17, Forest park, Bhubaneswar, Khurda
(33) Name of priority country	:NA	District - 751009, Odisha, India
(86) International Application No	:PCT//	(72)Name of Inventor :
Filing Date	:01/01/1900	1)Udaya Kumar Sahoo
(87) International Publication No	: NA	2)Debashree Debadatta Behara
(61) Patent of Addition to Application Number	:NA	3)Biswajit Nayak
Filing Date	:NA	4)Shiva Sankar Das
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

A fluid heating solar dehydration assembly for drying of wet matter comprises of a heat chest for holding the material to be dried with an inlet for introducing flow of hot air and a solar hat capturing unit for elevating the temperature of air entering the unit. The heat chest is connected to and is in thermal communication with the solar heat capturing unit with air inlets lined with moisture limiting materials. A driving arrangement can be disposed in the solar heat capturing unit for directing heated air through the heat capturing unit and into drying relationship with the material to be dried in the heat chest. An exhaust arrangement is provided in the drying compartment for venting of spent air. The small scale fluid heating solar dehydration assembly is economic and beneficial in rural areas.

No. of Pages : 19 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.201631029624 A

(19) INDIA

(22) Date of filing of Application :30/08/2016

(43) Publication Date : 07/10/2016

(54) Title of the invention : Solar Drip Irrigation System

(51) International classification	:A01G9/24	(71)Name of Applicant :
(31) Priority Document No	:NA	1)CENTURION UNIVERSITY OF TECHNOLOGY & MANAGEMENT (CUTM)
(32) Priority Date	:NA	Address of Applicant :17, Forest park, Bhubaneswar, Khurda
(33) Name of priority country	:NA	District - 751009, Odisha, India
(86) International Application No	:PCT//	(72)Name of inventor :
Filing Date	:01/01/1900	1)Debashree Debadatta Behara
(87) International Publication No	: NA	2)Nimay Chandra Giri
(61) Patent of Addition to Application Number	:NA	3)Monalisa Mohanty
Filing Date	:NA	4)Shiva Sankar Das
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

An auxiliary powered irrigation system comprises of an auxiliary power source mounted onto a structural arrangement with a solar tracking device for converting solar energy into electric energy, wherein the auxiliary power source is electrically connected through a miniature circuit breaker (MCB) combo box for powering the water pumping device to pump water and irrigate farm lands. The water pumping device such as a submersible pump is connected with a water source such as a water well and a water reservoir. The water reservoir is connected to drip irrigation carrying supply line with plurality of distribution lines to irrigate the farm lands by means of water pumped by auxiliary powered water pumping device. The auxiliary powered irrigation system has the advantages that power can also be supplied for irrigation under the conditions of power interruption from connected grid so that the normal running of irrigation equipment is ensured and the drip-irrigation efficiency & efficiency of submersible pump powered through solar electricity is improved.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.201641029625 A

(19) INDIA

(22) Date of filing of Application :30/08/2016

(43) Publication Date : 04/11/2016

(54) Title of the invention : VIBRATORY ASSISTED WELDING SYSTEM

(51) International classification	:A61H 1/00	(71)Name of Applicant :
(31) Priority Document No	:NA	<b>1)P.Govinda Rao</b>
(32) Priority Date	:NA	Address of Applicant :S/o Vykunta Rao Belamara Village & Post,Polaki Mandal, Srikakulam-532 430,Andhra Pradesh, India
(33) Name of priority country	:NA	Andhra Pradesh India
(86) International Application No	:NA	<b>2)Dr.P.SRINIVASA RAO</b>
Filing Date	:NA	<b>3)A.Gopala Krishna</b>
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number	:NA	<b>1)P.Govinda Rao</b>
Filing Date	:NA	<b>2)Dr.P.SRINIVASA RAO</b>
(62) Divisional to Application Number	:NA	<b>3)A.Gopala Krishna</b>
Filing Date	:NA	

(57) Abstract :

The present invention proposes a vibratory assisted welding system to aid in improvement of welding properties of the specimens. The vibrations induced during the welding operation can be controlled through various disclosed methods, primarily through voltage adjustment of the vibration inducing assembly. Another method would be to induce vibrations through a structural means mounted over the vibrating platform. The invention is advantageous in providing an economic vibration system with a control over production of vibrations and transfer over vibrations to the specimen plates to the welded thereby improving the weld joint efficiency.

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



(12) PATENT APPLICATION PUBLICATION

(21) Application No.201641032469 A

(19) INDIA

(22) Date of filing of Application :23/09/2016

(43) Publication Date : 07/10/2016

(54) Title of the invention : COLLAPSIBLE VEHICLE

(51) International classification

:B62K  
15/00

(31) Priority Document No

:NA

(32) Priority Date

:NA

(33) Name of priority country

:NA

(86) International Application No

:NA

Filing Date

:NA

(87) International Publication No

:NA

(61) Patent of Addition to Application Number

:NA

Filing Date

:NA

(62) Divisional to Application Number

:NA

Filing Date

:NA

(71)Name of Applicant :

**1)Centurion University of Technology and Management**

Address of Applicant :17, Forest park, Bhubaneswar, Khurda

District - 751009, Odisha, India Andhra Pradesh India

(72)Name of Inventor :

**1)A. Lakshumu Naidu**

**2)Dr P S V Ramana Rao**

(57) Abstract :

The invention details a collapsible vehicle, which can be easily folded in simple steps. The bike is provided with a sliding lock, dead lock configuration and position-lock mechanism for mounting of movable parts, which can be movably folded and/ or disengaged to collapse the bike. The collapsible vehicle is portable and is light weight which is advantageous for carrying it in the collapsible position.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.201731027568 A

(19) INDIA

(22) Date of filing of Application :03/08/2017

(43) Publication Date : 08/09/2017

(54) Title of the invention : A SYSTEM FOR PRECISE FARM MONITORING AND MICROCLIMATE CONTROL

(51) International classification	:G01P5/00	(71)Name of Applicant :
(31) Priority Document No	:NA	1)CENTURION UNIVERSITY OF TECHNOLOGY & MANAGEMENT (CUTM)
(32) Priority Date	:NA	Address of Applicant :HIG – 5, Phase -1, BDA Duplex
(33) Name of priority country	:NA	Pokhariput, Khurda District, Bhubaneswar – 751020 Odisha, India
(86) International Application No	:NA	(72)Name of Inventor :
Filing Date	:NA	1)Aamlan Saswat Mishra
(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 proposes a system for precise farm monitoring and microclimate control. The system comprises plurality of sensors in communication with a processor to detect farm parameters and transmit sensed values such as temperature, humidity, pH, methane and thereof to the processor. The processor is configured to compare the values with predetermined limits stored in the processor and thereby control the connected devices such as foggers to spray water vapor into the environment for maintaining the temperature between of the farm of a place between wet bulb and dry bulb temperature, fertilizer valve to supply nutrients, irrigation pump to supply water and thereof. The farmers, sharecroppers and the like can trade and display yield on a global market through the application module of the system which also facilitates precise farm monitoring. The invention is advantageous in providing farmers, sharecroppers and the like the flexibility of shifting crop seasons and obtains high yield not limiting themselves to the seasonal crops and expose farmers, sharecroppers and the like to global market.

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



(12) PATENT APPLICATION PUBLICATION

(21) Application No.201731018651 A

(19) INDIA

(22) Date of filing of Application :26/05/2017

(43) Publication Date : 14/12/2018

(54) Title of the invention : A MULTIPURPOSE SOLAR ENERGY OPERATED SUGARCANE AND FRUIT JUICE CART

(51) International classification	:B60L 8/00, B65G35/00, B60P 3/00	(71)Name of Applicant : <b>1)Centurion University of Technology and Management</b> Address of Applicant :17, Forest park, Bhubaneswar, Khurda District - 751009, Odisha, India
(31) Priority Document No	:NA	(72)Name of Inventor :
(32) Priority Date	:NA	<b>1)Udaya Kumar Sahoo</b>
(33) Name of priority country	:NA	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The present invention proposes a multipurpose solar energy operated sugar cane and fruit juice cart comprising of housing with a solar roof and a platform divided into sections for holding a sugarcane crusher in one partition and a food processor in the other partition, powered by the solar energy captured by the solar panels. The solar energy is stored in battery banks, while the crusher is driven through a V-belt arrangement by a motor, being powered by the battery banks. The invention is advantageous in reducing sound pollution, environmental pollution while optimizing the business model of street vendors, by minimizing their energy cost and maximizing the productivity with green energy.

No. of Pages : 11 No. of Claims : 6



(12) PATENT APPLICATION PUBLICATION

(21) Application No.201731043327 A

(19) INDIA

(22) Date of filing of Application :03/12/2017

(43) Publication Date : 07/06/2019

(54) Title of the invention : AUTOMATIC CONTROL SYSTEM FOR WATER SPRINKLING AND VENTILATION

(51) International classification	:A01G 1/00	(71)Name of Applicant : <b>1)Centurion University of Technology and Management (CUTM)</b>
(31) Priority Document No	:NA	Address of Applicant :17, Forest Park, Bhubaneswar, Khurda
(32) Priority Date	:NA	District - 751009 Odisha, India
(33) Name of priority country	:NA	(72)Name of Inventor :
(86) International Application No	:NA	<b>1)Sangram Keshari Swain</b>
Filing Date	:NA	<b>2)Subrat Kumar Pradhan</b>
(87) International Publication No	: NA	<b>3)Swarna Prabha Jena</b>
(61) Patent of Addition to Application Number	:NA	<b>4)Saroj Behera</b>
Filing Date	:NA	<b>5)T. Sunil Kumar</b>
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The present invention proposes an automatic control system for water sprinkling and ventilation. The system comprises a circuit board that mechanically supports and electrically connects the components using conductive tracks and thereof. The system uses an arduino based ATmega microcontroller that is specifically programmed to compute the input signals. The signals are received from the various sensors that sense moisture content of beds, humidity and ambient temperature and thereof. This is achieved by using a detecting unit with plurality of detectors arrangement for an effective system. Once the controller receives this signal, it begins the process of computation in order to carry out the necessary action for comparing the precise parameters that are pre fed and displayed in a visual means, which makes it very much informative. The system reduces human intervention and takes care of proper maintenance of growth parameters and minimizing wastage of resources in the mushroom cultivation chamber

No. of Pages : 13 No. of Claims : 8



(12) PATENT APPLICATION PUBLICATION

(21) Application No.201731043328 A

(19) INDIA

(22) Date of filing of Application :03/12/2017

(43) Publication Date : 07/06/2019

(54) Title of the invention : SMART MONITORING SYSTEM OF SOIL MOISTURE

(51) International classification	:G01N 33/00	(71) <b>Name of Applicant :</b> <b>1)Centurion University of Technology and Management (CUTM)</b>
(31) Priority Document No	:NA	Address of Applicant :17, Forest park, Bhubaneswar, Khurda
(32) Priority Date	:NA	District - 751009, Odisha, India
(33) Name of priority country	:NA	(72) <b>Name of Inventor :</b>
(86) International Application No	:NA	<b>1)Sangram Keshari Swain</b>
Filing Date	:NA	<b>2)Subrat Kumar Pradhan</b>
(87) International Publication No	: NA	<b>3)Swarna Prabha Jena</b>
(61) Patent of Addition to Application Number	:NA	<b>4)Saroj Behera</b>
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

An integrated handheld soil moisture sensor device comprising a controller for controlling a soil moisture sensor and integrated to the microcontroller, an oscillator to generate an electrical signal of precise frequency and a sensing unit to determine the moisture content of the soil. The controller may be a microcontroller of 8051, AVR, PIC and the like controllers. The controller controls the sensor circuit in accordance to the program dumped in the controller. The soil moisture sensor may be a capacitance sensor, granular matrix sensor and the like sensors. The oscillator may be a crystal oscillator, Hartley oscillator and the like oscillators to provide clock signals based on type of said controller. The sensing unit may be a neutron probes, gravimetric probes and the like sensing units and material of the sensing unit may be a conducting material such as copper, aluminium, metal and thereof. The sensing unit is inserted into the soil to determine moisture content of the soil where in the moisture content is displayed with precise value. The invention consists of portable soil moisture sensor and a common display unit. This makes it possible for the user to observe the moisture level of the soil in multiple locations from a single conveniently positioned display unit.

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



(12) PATENT APPLICATION PUBLICATION

(21) Application No.201731043329 A

(19) INDIA

(22) Date of filing of Application :03/12/2017

(43) Publication Date : 07/06/2019

(54) Title of the invention : LOW SMOKE PORTABLE COMBUSTION FURNACE

(51) International classification	:A47J 37/00	(71)Name of Applicant :
(31) Priority Document No	:NA	<b>1)Centurion University of Technology and Management (CUTM)</b>
(32) Priority Date	:NA	Address of Applicant :# 17, Forest park, Bhubaneswar, Pin -
(33) Name of priority country	:NA	751009, Dist; Khurda, Odisha, India
(86) International Application No	:NA	(72)Name of Inventor :
Filing Date	:NA	<b>1)Nityananda Padhy</b>
(87) International Publication No	: NA	<b>2)Debashree debadatta Behera</b>
(61) Patent of Addition to Application Number	:NA	<b>3)Dr Biswajit Nayak</b>
Filing Date	:NA	<b>4)Shiv Sankar Das</b>
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

A low smoke portable combustion furnace comprises a combustion chamber, a shell, a plurality of air inlets, a plurality of orifices, a plurality of set of pores engraved on orifices and a support structure to place an item such as a vessel, a pot, a container and the like. The combustion chamber is to contain and combust solid biomass fuels. The term "biomass" can be taken broadly to include any fuel, coal, oil, waste products, etc., that will burn more cleanly and efficiently by getting injected of air during combustion. The inventive design of the combustion chamber can be of a variety of shapes such as cylindrical or pie shape, depending on the type of fuel used and the stove's intended purpose. The furnace design reduces the amount of carbon monoxide gas emitted from the burning of solid fuel energy source, especially biomass.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.201941040224 A

(19) INDIA

(22) Date of filing of Application :04/10/2019

(43) Publication Date : 25/10/2019

(54) Title of the invention : MACHINE LEARNING BASED COMPUTER IMPLEMENTED METHOD FOR MANAGING PRODUCTION FROM A HYDROCARBON RESERVOIR

(51) International classification	:G06N3/00	(71)Name of Applicant :
(31) Priority Document No	:NA	<b>1)Deepa R</b>
(32) Priority Date	:NA	Address of Applicant :Assistant Professor, Department of Information Technology, St. Joseph's College of Engineering, Chennai, India Tamil Nadu India
(33) Name of priority country	:NA	<b>2)Priyadharshini K</b>
(86) International Application No	:NA	<b>3)Bennet Prabhu .A</b>
Filing Date	:NA	<b>4)Dr. Sujata Chakravarty</b>
(87) International Publication No	: NA	<b>5)Amar Kumar Das</b>
(61) Patent of Addition to Application Number	:NA	<b>6)Dr. Prashant Kumar Shukla</b>
Filing Date	:NA	<b>7)Dr. Piyush Kumar Shukla</b>
(62) Divisional to Application Number	:NA	(72)Name of Inventor :
Filing Date	:NA	<b>1)Deepa R</b>
		<b>2)Priyadharshini K</b>
		<b>3)Bennet Prabhu .A</b>
		<b>4)Dr. Sujata Chakravarty</b>
		<b>5)Amar Kumar Das</b>
		<b>6)Dr. Prashant Kumar Shukla</b>
		<b>7)Dr. Piyush Kumar Shukla</b>

(57) Abstract :

The present disclosure of invention is present machine learning based computer implemented method for managing production from a hydrocarbon reservoir. The objective of the present invention to provide overcomes the inadequacies of the prior art in effective management of production from a hydrocarbon reservoir. The presented computer implemented method uses a technical data and economic data with a neural network based model to manage the operation of the production of the hydrocarbon reservoir.

No. of Pages : 18 No. of Claims : 7



(12) PATENT APPLICATION PUBLICATION

(21) Application No.201931004151 A

(19) INDIA

(22) Date of filing of Application :01/02/2019

(43) Publication Date : 19/06/2020

(54) Title of the invention : ROBOTIC SERVICE SYSTEM FOR RAILWAY COACHES (SWAB RAILWAYS)

(51) International classification :A61B0034300000,  
H04N0021218000,  
H04N0021218700,  
H04N0007180000,  
G09C0001000000

(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)Centurion University of Technology & Management  
(CUTM)**

Address of Applicant :Alluri Nagar Village, P.O- R Sitapur,  
Via- Uppalada, Paralakhemundi, Gajapati- 761211, Odisha, India

(72)Name of Inventor :

**1)Avinash Seekoli  
2)Debasish Mohanty  
3)S.Ranjit Rao**

(57) Abstract :

Title: Robotic Service System for Railway Coaches The present disclosure discloses a robotic service system that automatically cleans the targeted railway coaches while sending live video feed and monitors different parameters of the railway coaches that include humidity, gas, temperature and thereof. The robotic service system has the ability to communicate bit to bit information wirelessly about the train at any moment with railway personnel. The information may include real-time image capturing which is then communicated with the railway personnel. Further, a controlling means is configured to receive and execute instructions sent from the railway personnel. Thus, the disclosure provides a safety servicing and data collecting robot thereby preventing many accidents and life threatening issues at a low cost.

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



(12) PATENT APPLICATION PUBLICATION

(21) Application No.201931032613 A

(19) INDIA

(22) Date of filing of Application :12/08/2019

(43) Publication Date : 19/06/2020

(54) Title of the invention : CORIANDER EXTRACT FOR BONE CANCER

(51) International classification :A61K0036230000,  
A61K0031474500,  
A61K0048000000,  
A61K0041000000,  
A61K0009480000

(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)Centurion University of Technology & Management (CUTM)**

Address of Applicant :At-Alluri Nagar Village, PO-R. Sitapur, Via-Uppalada, Paralakhemundi-761211, Gajapati District, Odisha, India

(72)Name of Inventor :

**1)Preetha Bhadra**

(57) Abstract :

The proposed disclosure provides a therapeutically effective coriander (*Coriandrum Sativum*) composition for targeted gene therapy with proven pharmacological activities for the treatment of particular bone cancer. The formulation of coriander (*Coriandrum Sativum*) composition comprises of herbal extracts such as Decene (6DJC) and 2- Bornyl acetate (5ZF4) extracted from the root of coriander. The composition helps in inhibiting DNA damage, preventing cancer cell migration and promoting cancer cell death or boost the immune system. The composition has the capability of removing toxins from the body by relieving fluid retention. The composition is formulated as tablets, capsules and thereof which is a cost effective drug without having any harmful side effects for normal cells. The composition helps in providing better molecular docking scores when compared to conventional extracts.

No. of Pages : 19 No. of Claims : 7

(12) PATENT APPLICATION PUBLICATION

(21) Application No.201931032614 A

(19) INDIA

(22) Date of filing of Application :12/08/2019

(43) Publication Date : 19/06/2020

(54) Title of the invention : SYZYGIUM AROMATICUM EXTRACTS FOR OVARIAN CANCER

(51) International classification :A61K0036610000,  
A23L0033105000,  
A61K0031198000,  
A61K0048000000,  
A21D0002360000

(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)Centurion University of Technology & Management (CUTM)**

Address of Applicant :At-Alluri Nagar Village, PO-R. Sitapur, Via-Uppalada, Paralakhemundi-761211, Gajapati District, Odisha, India

(72)Name of Inventor :

**1)Preetha Bhadra**

(57) Abstract :

The proposed disclosure provides a therapeutically effective Syzygium aromaticum (clove) composition for targeted gene therapy with proven pharmacological activities for the treatment of ovarian cancer. The formulation of Syzygium aromaticum (clove) composition comprises of herbal extracts such as kaempferol and protein. In specific, protein may include either 5AUX or 5AV2 or 5AV3 or 4DET. The composition has the capability of being used as anti-oxidant property that helps in removing free radicals. The composition can be formulated as tablets, capsules and thereof which is a cost effective drug without having any harmful side effects for normal cells. The composition helps in providing better molecular docking score when compared to conventional extracts in Syzygium aromaticum.

No. of Pages : 21 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION

(21) Application No.201931032615 A

(19) INDIA

(22) Date of filing of Application :12/08/2019

(43) Publication Date : 19/06/2020

(54) Title of the invention : METHI EXTRACT FOR LIVER CANCER

(51) International classification :A61K0048000000,  
A61K0041000000,  
A61K0031708000,  
A61K0031417800,  
A61K0009480000

(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)Centurion University of Technology & Management (CUTM)**

Address of Applicant :At-Alluri Nagar Village, PO-R. Sitapur, Via-Uppalada, Paralakhemundi-761211, Gajapati District, Odisha, India

(72)Name of Inventor :

**1)Preetha Bhadra**

(57) Abstract :

The proposed disclosure provides a therapeutically effective Fenurgreek (Methi) composition for targeted gene therapy with proven pharmacological activities for the treatment of liver cancer. The formulation of Fenurgreek (Methi) composition comprises of herbal extracts such as linalool, sotolon and coumarin. The composition has the capability of being used as anti-oxidant and anti microbes. The composition is formulated as tablets, capsules and thereof which is a cost effective drug without having any harmful side effects for normal cells. The formulated drug can also be used for preparing different skin and hair products. The composition helps in providing better molecular docking scores when compared to conventional extracts in Fenurgreek.

No. of Pages : 21 No. of Claims : 7



(12) PATENT APPLICATION PUBLICATION

(21) Application No.201931032616 A

(19) INDIA

(22) Date of filing of Application :12/08/2019

(43) Publication Date : 19/06/2020

(54) Title of the invention : BACOPA MONNIERI EXTRACTS FOR LUNG CANCER

(51) International classification :A61K0036800000,  
A61K0041000000,  
A61K0009480000,  
A61K0036680000,  
A61K0031416400

(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)Centurion University of Technology & Management  
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Address of Applicant :At-Alluri Nagar Village, PO-R. Sitapur,  
Via-Uppalada, Paralakhemundi-761211, Gajapati District, Odisha,  
India

(72)Name of Inventor :

**1)Preetha Bhadra**

(57) Abstract :

The proposed disclosure provides a therapeutically effective Bacopa monnieri (Bramhi) composition for targeted gene therapy with proven pharmacological activities for the treatment of lung cancer. The formulation of Bacopa monnieri (Bramhi) composition comprises of herbal extract such as Alpha alanine-6HUG. The composition has the capability of being used as anti-oxidant property that helps in removing free radicals. The composition can be formulated as tablets, capsules and thereof which is a cost effective drug without having any harmful side effects for normal cells. The composition helps in providing better molecular docking score when compared to conventional extracts in Bacopa monnieri.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.201931041144 A

(19) INDIA

(22) Date of filing of Application :11/10/2019

(43) Publication Date : 19/06/2020

(54) Title of the invention : SOLAR SUGARCANE JUICER WITH CUSTOMIZED COOLING AND ADDITIVE DOSAGE DESIGN

(51) International classification	:A47J0019020000, A23N0001000000, A23L0002040000, F24S0060300000, C13B0020160000	(71) <b>Name of Applicant :</b> <b>1)CENTURION UNIVERSITY OF TECHNOLOGY AND MANAGEMENT (CUTM)</b> Address of Applicant :At-Alluri Nagar Village, PO-R Sitapur, Via-Uppalada, Paralakhemundi- 761211, Gajapati Dist. Odisha, India
(31) Priority Document No	:NA	(72) <b>Name of Inventor :</b>
(32) Priority Date	:NA	<b>1)Nimay Chandra Giri</b>
(33) Name of priority country	:NA	<b>2)Bishnu Prasad Mishra</b>
(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 :

Title: Solar Sugarcane Juicer with Customized Cooling and Additive Dosage Design The present disclosure discloses a sugarcane juicer machine with customized cooling and additive dosage design that offers a ready to serve sugarcane juice. The juicer machine is powered using solar energy which is used in any remote part of the world. The juicer machine comprises of a juice extractor, a clarifier, a cooling unit and an additive dosage selector. The cooling unit further comprises of a brine tank, plurality of Peltier cells and plurality of helical coils. The clarifier may include a centrifugal clarifier that aid in separating the solids from the extracted juice. The plurality of Peltier cells are powered by the solar power supply that aid in customized cooling the brine solution as per customer requirement. The juicer provide different levels of cooling and different flavors for taste enhancement. The additive dosage selector is incorporated to add different customized additives as per customer requirement to the cooled juice to make it tastier. The juice is blended with other taste improvers that provide health benefits to cure or prevent some diseases. The solar sugarcane juicer machine provides a hygiene sugarcane juice at an affordable price that can be assured to all rural, semi urban and urban population.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.201931045677 A

(19) INDIA

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

(43) Publication Date : 19/06/2020

(54) Title of the invention : AUTOMATIC FAULT CONTROL SYSTEM INTEGRATED 3D PRINTER

(51) International classification	:G06F0011070000, H02M0001320000, B41J0003407000, G01R0031360000, A42B0003040000
(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)Centurion University of Technology & Management (CUTM)**  
 Address of Applicant :At-Alluri Nagar Village, PO-R. Sitapur, Via-Uppalada, Paralakhemundi- 761211, Gajapati District, Odisha, India.

(72)**Name of Inventor :**  
**1)Suman Kumar Sudhanshu**

(57) Abstract :

Title: Automatic Fault Control System Integrated 3D Printer The present disclosure discloses an automatic fault control system integrated 3D printer which automatically monitors different parameters, assesses and corrects faults within the printer during printing of an object. The control system comprises a parameter monitoring module, a remedy application module, a fault communication module, a controller and a power module. The parameter monitoring module is configured to assess faults during printing and the fault communication module is configured to communicate the assessed faults wirelessly to the remedy application module. The remedy application module can be linked either as a mobile application or a server application or the like which provides remedies to faults occurred during printing. Further, the controller is configured to process received remedies and to correct faults occurred during printing without discontinuing the process of printing.

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



(12) PATENT APPLICATION PUBLICATION

(21) Application No.201931049814 A

(19) INDIA

(22) Date of filing of Application :03/12/2019

(43) Publication Date : 19/06/2020

(54) Title of the invention : A DEVICE FOR DETECTION OF FOOD TOXINS

(51) International classification :A23L0005200000,  
A23P0030200000,  
G01N0033558000,  
A23K0050400000,  
B01J0020220000

(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)Centurion University of Technology and Management (CUTM)**

Address of Applicant :Alluri Nagar Village, PO-R Sitapur, Via-Uppalada, Paralakhemundi-761211, Gajapati Dist, Odisha, India

(72)Name of Inventor :

**1)Preetha Bhadra**

(57) Abstract :

The present disclosure discloses a cost-effective sensing device that detects food toxins i.e., Aflatoxin B1 in agricultural plants, food and feed products with ease and can be used by the farmers. The device comprises a body 101, a paper roll casing 102, a guiding and rolling means 103, a sample collecting means 104, an ejection means, a cutting means 105, and a paper outlet 106. The device is cost-effective and aids in detecting Aflatoxin in food and feed products based on capillary rise principle. The device is capable of detecting minor changes in the pH of solution to thereby enhance the detection procedure of the affected cell. The device helps in detecting biochemical changes in agricultural plants, food, and feed products with reduced time-consumption.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.201931051679 A

(19) INDIA

(22) Date of filing of Application :13/12/2019

(43) Publication Date : 19/06/2020

(54) Title of the invention : BIO-GAS CYLINDER MONITORING AND REPLACING SYSTEM IN MOBILE BIO-TOILETS

(51) International classification :C12M0001107000,  
A47K0011030000,  
C02F0003280000,  
C12M0001000000,  
G06Q0010060000

(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)Centurion University of Technology and Management (CUTM)**  
Address of Applicant :Alluri Nagar, PO-R.Sitapur, Via-  
Uppalada, Parlakhemundi-761211, Gajapathi Dist, Odisha, India

(72)Name of Inventor :  
**1)Pritam Das**  
**2)Jyoti Lal Lodhi**  
**3)N.Laxmidhar Reddy**

(57) Abstract :

Title: Bio-Gas Cylinder Monitoring and Replacing System in Mobile Bio-Toilets The present disclosure discloses an e-movable bio-toilet incorporated with monitoring and replacing system that alerts the driver to replace the cylinder once it is filled and simultaneously transmits wirelessly the bio-gas availability information to the gas inventory in real-time. The system 100 comprises a vehicle body 101, a toilet cabinet 102, a replaceable bio-gas cylinder 103, and a weight detection means 104, a pair of visual indication means 105, a signal transmitting means 106, and a dashboard controlling means. The system transmits the signal to the driver or the inventory either in an audibly or visually manner with colour representation of filling level indication of methane gas in the cylinder. The bio-gas monitoring and replacing system minimizes pollution by using electrical energy and generates good revenue by selling the methane gas that is extracted from the waste material.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.201931054080 A

(19) INDIA

(22) Date of filing of Application :27/12/2019

(43) Publication Date : 19/06/2020

(54) Title of the invention : TERMINALIA CHEBULA EXTRACT COMPOSITION FOR JAUNDICE

(51) International classification :A61K0036185000,  
A61K0008970000,  
A61K0048000000,  
A61K0008310000,  
A61K0008340000

(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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MANAGEMENT (CUTM)**

(72)Name of Inventor :

**1)Preetha Bhadra**

**2)Atanu Deb**

(57) Abstract :

Terminalia Chebula Extract Composition for Jaundice The proposed disclosure provides a therapeutically effective terminalia chebula (Haritaki) composition for targeted gene therapy with proven pharmacological activities for the treatment of jaundice. The terminalia chebula extract Composition comprises of herbal extracts such as chebulagic acid, punicalagin and chebulanin. The proposed terminalia chebula (Haritaki) composition enhances glucuronidation process to thereby decrease the levels of bilirubin. The proposed composition is a cost effective drug with less harmful side effects for normal cells. The terminalia chebula (Haritaki) composition reduces the use of synthetic drugs.

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



(12) PATENT APPLICATION PUBLICATION

(21) Application No.201941032262 A

(19) INDIA

(22) Date of filing of Application :08/08/2019

(43) Publication Date : 03/07/2020

(54) Title of the invention : NANOPARTICLES FOR SINGLE CYLINDER SPARK IGNITION ENGINE

(51) International classification	:F02B 75/16	(71)Name of Applicant :
(31) Priority Document No	:NA	<b>1)Dr.GURRAM ARUN MANOHAR</b>
(32) Priority Date	:NA	Address of Applicant :50-94-25/12, ARUN APARTMENTS
(33) Name of priority country	:NA	SHANTIPURAM, VISAKHAPATNAM, ANDHRA PRADESH-
(86) International Application No	:NA	530016, INDIA. Andhra Pradesh India
Filing Date	:NA	<b>2)Dr.G.Arun Manohar</b>
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number	:NA	<b>1)Dr.GURRAM ARUN MANOHAR</b>
Filing Date	:NA	<b>2)Dr.G.Arun Manohar</b>
(62) Divisional to Application Number	:NA	<b>3)Dr.D.Nageswara Rao</b>
Filing Date	:NA	<b>4)Dr.D. NAGESWARA RAO</b>

(57) Abstract :

ABSTRACT: Title: Nanoparticles for Single Cylinder Spark Ignition Engine The present disclosure discloses usage of biodegradable sisal nanoparticles in the combustion chamber of a single cylinder spark ignition engine along with air fuel mixtures. The nanoparticle addition assembly 100 comprises a fuel measuring unit 101, an air measuring unit 102, a temperature measuring unit 103 and a nanoparticle regulating unit 104. The nanoparticle regulating unit 104 is configured to add biodegradable sisal nanoparticles into the cylinder. The nanoparticle regulating unit 104 further comprises a flow channel pipe 105, a storage chamber 106, and a valve 107 positioned before the storage chamber. The method allows a drop in the pollutant formations of CO and HC with the addition of sisal nanoparticles. The combustion efficiency is measured in terms of the maximum temperature attained in the cylinder.

No. of Pages : 27 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202031024943 A

(19) INDIA

(22) Date of filing of Application :13/06/2020

(43) Publication Date : 17/07/2020

(54) Title of the invention : A BIO-PESTICIDE COMPOSITION BASED ON PEPPERMINT EXTRACT AND ITS PREPARATION METHOD THEREOF

(51) International classification :A01N63/00

(31) Priority Document No :NA

(32) Priority Date :NA

(33) Name of priority country :NA

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

(71)Name of Applicant :

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(72)Name of Inventor :

**1)Preetha Bhadra**

(57) Abstract :

The present disclosure proposes a peppermint extract composition for the treatment of grey mould and microbial diseases in plants. The extract composition comprises pharmacophores such as menthone, menthofuran, beta pinen, and 1, 8 cineole that target endopolygalaturonases responsible for grey mould and microbial diseases in plants. The disclosure provides a peppermint extract composition for use as a potential biopesticide. The proposed composition provides a cost-effective drug with less harmful side effects for normal cells. Further, the composition aids to reduce the use of pesticides based on synthetic drugs.

No. of Pages : 12 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202031024944 A

(19) INDIA

(22) Date of filing of Application :13/06/2020

(43) Publication Date : 17/07/2020

(54) Title of the invention : A BIOPESTICIDE COMPOSITION BASED ON BAEL EXTRACT AND ITS PREPARATION METHOD THEREOF

(51) International classification :A01N63/00  
(31) Priority Document No :NA  
(32) Priority Date :NA  
(33) Name of priority country :NA  
(86) International Application No :NA  
Filing Date :NA  
(87) International Publication No : NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :

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Address of Applicant :At-Alluri Nagar Village, PO-R.Sitapur, Via-Uppalada, Paralakhemundi-761211, Gajapati District, Odisha, India.

(72)Name of Inventor :

**1)Preetha Bhadra**

(57) Abstract :

A Biopesticide Composition based on Bael Extract and its Preparation Method thereof The present disclosure proposes a potential biopesticide based on bael extract. The extract comprises of pharmacophores such as aegeline, skimmianine(1), d-limonene, marmelosin, allocryptopine to target different genes responsible for aphids in plants. The bael extract composition comprises 15 to 25 percentage of aegeline, 15 to 25 percentage of skimmianine(1), 15 to 25 percentage of d-limonene, 15 to 25 percentage of marmelosin, and 15 to 25 percentage of allocryptopine. The biopesticide extract composition interrupts with the enzymatic pathway of aphids by targeting the enzymes responsible. The bael extract composition is a cost-effective biopesticide with less harmful side effects for normal cells. The proposed composition reduces the use of pesticides based on synthetic drugs.

No. of Pages : 12 No. of Claims : 4



(12) PATENT APPLICATION PUBLICATION

(21) Application No.202031024945 A

(19) INDIA

(22) Date of filing of Application :13/06/2020

(43) Publication Date : 17/07/2020

(54) Title of the invention : CUMIN EXTRACT BASED BIOPESTICIDE COMPOSITION

(51) International classification :A01N63/00  
(31) Priority Document No :NA  
(32) Priority Date :NA  
(33) Name of priority country :NA  
(86) International Application No :NA  
Filing Date :NA  
(87) International Publication No : NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

(71)**Name of Applicant :**  
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Address of Applicant :At-Alluri Nagar Village, PO-R. Sitapur, Via-Uppalada, Paralakhemundi-761211, Gajapati District, Odisha, India.  
(72)**Name of Inventor :**  
**1)Preetha Bhadra**

(57) Abstract :

The proposed disclosure provides a therapeutically effective cumin extract based biopesticide composition for targeted gene therapy with proven pharmacological activities for the treatment of wilt disease. The formulation of cumin extract based biopesticide composition comprises of pharmacophores such as berberine, p-coumaric, saponins and 4-isopropylbenzoic acid. The cumin composition is formulated as natural drug for microbial diseases in plants without harmful side effects for normal cells.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202031024946 A

(19) INDIA

(22) Date of filing of Application :13/06/2020

(43) Publication Date : 17/07/2020

(54) Title of the invention : METHI EXTRACT BASED BIOPESTICIDE COMPOSITION

(51) International classification :A01N63/00  
(31) Priority Document No :NA  
(32) Priority Date :NA  
(33) Name of priority country :NA  
(86) International Application No :NA  
Filing Date :NA  
(87) International Publication No : NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :

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(72)Name of Inventor :

**1)Preetha Bhadra**

(57) Abstract :

The proposed disclosure provides a therapeutically effective methi extract based biopesticide composition for targeted gene therapy with proven pharmacological activities for the treatment of purple blotch disease. The formulation of methi extract based biopesticide composition comprises of pharmacophores such as trigoneline, trimentylcoumarin, carpaine, choline, methyl coumarin, and trigocoumarin. The methi composition is formulated as natural drug for microbial diseases without harmful side effects for normal cells. The composition helps to aid future medicine to be completely allied to the pharmacophores and reduces the usage of synthetic drugs.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202031027644 A

(19) INDIA

(22) Date of filing of Application :29/06/2020

(43) Publication Date : 17/07/2020

(54) Title of the invention : EXTRACTION OF BIOACTIVE PRINCIPLES FROM OECOPHYLLA SMARAGDINA BASED ANTIBACTERIAL COMPOSITION

(51) International classification :A01N63/00  
(31) Priority Document No :NA  
(32) Priority Date :NA  
(33) Name of priority country :NA  
(86) International Application No :NA  
Filing Date :NA  
(87) International Publication No : NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :

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(72)Name of Inventor :

**1)Chinmaya Chidananda Behera**

**2)Dr.Amulyaratna Behera**

**3)Dr.Priyanka Das**

**4)Mrs.Suchismeeta Behera**

(57) Abstract :

The proposed disclosure provides a therapeutically effective extraction of bioactive principles from n-hexane and methanolic extracts of Oecophylla Smaragdina based antibacterial composition and screened for binding affinities towards various bacterial proteins for the respective species. The composition has the capability of being used as anti-oxidant and anti-microbes. The composition enhances the inhibitory properties of extracted compounds when compared to available marketed compounds.

No. of Pages : 24 No. of Claims : 10



(12) PATENT APPLICATION PUBLICATION

(21) Application No.202031027645 A

(19) INDIA

(22) Date of filing of Application :29/06/2020

(43) Publication Date : 17/07/2020

(54) Title of the invention : EXTRACTION OF BIOACTIVE PRINCIPLES FROM OECOPHYLLA SMARAGDINA BASED ANTICANCER COMPOSITION

(51) International classification :A61K36/00

(31) Priority Document No :NA

(32) Priority Date :NA

(33) Name of priority country :NA

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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(72)Name of Inventor :

**1)Chinmaya Chidananda Behera**

**2)Dr.Amulyaratna Behera**

**3)Dr.Priyanka Das**

**4)Mrs.Suchismeeta Behera**

(57) Abstract :

The proposed disclosure provides a therapeutically effective extraction of bioactive principles from n-hexane and methanolic extracts of Oecophylla Smaragdina based anticancer composition and screened for binding affinities towards 4EKL, 3W32, and in vitro anticancer by inhibition of human cancer cell line growth. The composition has the capability of being used as anti-oxidant and anti-microbes. The composition enhances the inhibitory properties of extracted compounds when compared to available marketed compounds.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202031027646 A

(19) INDIA

(22) Date of filing of Application :29/06/2020

(43) Publication Date : 17/07/2020

(54) Title of the invention : EXTRACTION OF BIOACTIVE PRINCIPLES FROM OECOPHYLLA SMARAGDINA BASED ANTI-FUNGAL COMPOSITION

(51) International classification :A61K36/00

(31) Priority Document No :NA

(32) Priority Date :NA

(33) Name of priority country :NA

(86) International Application No :NA

Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA

Filing Date :NA

(62) Divisional to Application Number :NA

Filing Date :NA

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Address of Applicant :At-Alluri Nagar Village, PO-R.Sitapur, Via-Uppalada, Parlakhemundi-761211, Gajapati District, Odisha, India.

(72)Name of Inventor :

**1)Chinmaya Chidananda Behera**

**2)Dr.Amulyaratna Behera**

**3)Mr.Suman Kumar Mekap**

**4)Mrs.Suchismeeta Behera**

(57) Abstract :

The proposed disclosure provides a therapeutically effective extraction of bioactive principles from n-hexane and methanolic extracts of Oecophylla Smaragdina based anti-fungal composition and screened for binding affinities towards various fungal proteins for the respective species. The composition has the capability of being used as anti-oxidant and anti-microbes. The composition enhances the inhibitory properties of extracted compounds when compared to available marketed compounds.

No. of Pages : 21 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202031027647 A

(19) INDIA

(22) Date of filing of Application :29/06/2020

(43) Publication Date : 17/07/2020

(54) Title of the invention : EXTRACTION OF BIOACTIVE PRINCIPLES FROM OECOPHYLLA SMARAGDINA BASED MULTI TARGETING ANTI-SARS COMPOSITION

(51) International classification :A61K36/00  
(31) Priority Document No :NA  
(32) Priority Date :NA  
(33) Name of priority country :NA  
(86) International Application No :NA  
Filing Date :NA  
(87) International Publication No : NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :

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(72)Name of Inventor :

**1)Chinmaya Chidananda Behera**

**2)Dr.Amulyaratna Behera**

**3)Dr.Gurudutta Pattnaik**

**4)Mrs.Suchismita Behera**

(57) Abstract :

The proposed disclosure provides a therapeutically effective extraction of bioactive principles from n-hexane and methanolic extracts of Oecophylla Smaragdina based multi-targeting anti-SARS composition and screened for binding affinities towards various Severe Acute Respiratory Syndrome Coronavirus-2 (SARS CoV-2) proteins for the respective species. The composition has the capability of being used as anti-oxidant and anti-microbes. The composition enhances the inhibition of the replication and multiplication of virus in the host cells when compared to presently repurposed drug molecules for the disease.

No. of Pages : 22 No. of Claims : 10



(12) PATENT APPLICATION PUBLICATION

(21) Application No.202031027660 A

(19) INDIA

(22) Date of filing of Application :30/06/2020

(43) Publication Date : 17/07/2020

(54) Title of the invention : COMPACT SEMI-AUTOMATIC PAPER PEN AND PENCIL MAKING MACHINE

(51) International classification :B43K29/00  
(31) Priority Document No :NA  
(32) Priority Date :NA  
(33) Name of priority country :NA  
(86) International Application No :NA  
Filing Date :NA  
(87) International Publication No :NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

(71)Name of Applicant :

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(72)Name of Inventor :

**1)Amiya Singh**  
**2)Prem Shankar Pandey**  
**3)Ahmed Raza**  
**4)Jamaluddin Khan**  
**5)Rezuwan Khan**

(57) Abstract :

The present disclosure proposes a compact semi-automatic paper pen and pencil making machine that reuses waste paper to roll and produce eco-friendly pens and pencils. The paper pen and pencil making machine 1S00 comprises a mounting base 101, an idle axle 102 fixed on one side of the mounting base 101, a driving axle 103 fixed on the other side of the mounting base 101 and connected to the idle axle 102 through a conveyor belt 104, a motor 105 coupled to the driving axle 103, an upper pressure plate 106a fixed on top of the mounting base 101 above the conveyor belt 104 and a lower pressure plate 106b below the conveyor belt 104, plurality of screw and spring adjustment units 107 configured on either side of the pressure plates 106a and 106b to fasten them to the mounting base 101. The machine is of simple design that consumes less power and lower maintenance. The machine aids to make pencils or pens with easier and simple process that takes only few steps. Thus, the proposed paper pen and pencil making machine is lightweight, occupies less space, and is portable.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202031027661 A

(19) INDIA

(22) Date of filing of Application :30/06/2020

(43) Publication Date : 17/07/2020

(54) Title of the invention : EXTRACTION OF BIOACTIVE PRINCIPLES FROM OECOPHYLLA SMARAGDINA BASED ANTI-DIABETIC COMPOSITION

(51) International classification	:A61K45/00	(71)Name of Applicant :
(31) Priority Document No	:NA	<b>1)Centurion University of Technology &amp; Management (CUTM)</b>
(32) Priority Date	:NA	Address of Applicant :At-Alluri Nagar Village, PO-R. Sitapur, Via-Uppalada, Paralakhemundi-761211, Gajapati District, Odisha, India
(33) Name of priority country	:NA	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number	:NA	<b>1)Chinmaya Chidananda Behera</b>
Filing Date	:NA	<b>2)Dr.Amulyaratna Behera</b>
(62) Divisional to Application Number	:NA	<b>3)Mr.Suman Kumar Mekap</b>
Filing Date	:NA	<b>4)Mrs.Suchismeeta Behera</b>

(57) Abstract :

The proposed disclosure provides a therapeutically effective extraction of bioactive principles from n-hexane and methanolic extracts of Oecophylla Smaragdina based and screened for binding affinities towards human Peroxisome proliferator-activated receptor gamma for the respective species. The composition has the capability of being used as anti-oxidant and anti-microbes. The composition enhances the inhibitory properties of extracted compounds when compared to available marketed compounds.

No. of Pages : 24 No. of Claims : 10

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202031035660 A

(19) INDIA

(22) Date of filing of Application :19/08/2020

(43) Publication Date : 04/09/2020

(54) Title of the invention : MULTI-LEVEL SECURITY AND DETECTION SYSTEM TO AVERT ELEPHANT ACCIDENTS AT RAILWAY TRACKS

(51) International classification :G06F11/30  
(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)Dr.Sujata Chakravarty**

Address of Applicant :Flat-251, Northern Heights,  
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(72)Name of Inventor :

**1)Payal Bhadra**

**2)Avijit Balabantaray**

**3)Sujit Kumar Sahoo**

**4)Dr.Sujata Chakravarty**

(57) Abstract :

The present disclosure proposes a multi-level elephant detection system that prevents accidents at railway tracks using three levels of security and detection by placing different sensors at each level near elephant corridors and reduces elephant accidents. The multi-level elephant detection system 100 comprises a primary level detection unit 101, a secondary level detection unit 104, a tertiary level detection unit 107, at least one sound emitting unit (not shown), a processing unit 110, and a notifying unit. The proposed system indicates presence of elephants using signal lights along the railway tracks in each security layer in real-time to the train driver. The proposed system utilizes advanced, budget friendly, cost effective equipment such as cameras, IR, PIR and piezoelectric sensors which are more convenient and efficient in sensing and detecting elephants. The system generates high frequency sounds in coordination with train timings along the elephant corridors to drive away elephants from railway tracks to prevent collision with trains. Further, the system provides a notification to the train driver, nearby railway office and forest personnel indicating presence of elephants at a specific detection level in the elephant corridor near the railway track.

No. of Pages : 21 No. of Claims : 10



(12) PATENT APPLICATION PUBLICATION

(21) Application No.202031035686 A

(19) INDIA

(22) Date of filing of Application :19/08/2020

(43) Publication Date : 11/09/2020

(54) Title of the invention : AUTOMATED PORTABLE DIAGNOSTIC SYSTEM AND METHOD FOR THE PATIENTS IN COVID HOSPITALS

(51) International classification	:A61B0005145500, G01N0035100000, A61B0005020500, F04C0023000000, G01N0021780000	(71)Name of Applicant : <b>1)DR.SATYABRATA DASH</b> Address of Applicant :DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING, GANDHI ENGINEERING COLLEGE, BHUBANESWAR-754006,ORISSA,INDIA <b>2)DR.HEMRAJ SAINI</b> <b>3)DR.SUJATA CHAKARVARTY</b> <b>4)SWARNAPRABHA JENA</b> <b>5)SUBRAT KUMAR PRADHAN</b> <b>6)MR.BARADA P.PANIGRAHY</b> <b>7)DR.SUBASH CH. NATH</b> <b>8)DR.SUSANTA KUMAR ROUT</b>
(31) Priority Document No	:NA	(72)Name of Inventor : <b>1)DR.SATYABRATA DASH</b> <b>2)DR.HEMRAJ SAINI</b> <b>3)DR.SUJATA CHAKARVARTY</b> <b>4)SWARNAPRABHA JENA</b> <b>5)SUBRAT KUMAR PRADHAN</b> <b>6)MR.BARADA P.PANIGRAHY</b> <b>7)DR.SUBASH CH. NATH</b> <b>8)DR.SUSANTA KUMAR ROUT</b>
(32) Priority Date	:NA	
(33) Name of priority country	:NA	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The proposed device is a ICT enabled centralized patient monitoring device which can be used for covid hospitals and will help the hospital staff(Paramedics) to monitor the body temperature of the covid 19 patients in emergency medical situations who are seriously ill with the aim of stabilizing them without moving to their place. It will also monitor the patients movement activity with respect to other persons and give warning to maintain social distancing

No. of Pages : 29 No. of Claims : 5

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202031039046 A

(19) INDIA

(22) Date of filing of Application :10/09/2020

(43) Publication Date : 16/10/2020

(54) Title of the invention : METHOD AND AUTOMATED SAFETY EQUIPMENT FOR QUICK DETECTION OF BIOLOGICAL EVENTS OF HOSPITALIZED PATENTS FOR COVID THEREOF.

(51) International classification	:A61K0045060000, A61B0005020500, G01N0033543000, A61B0005145000, A61K0031546000	(71)Name of Applicant : <b>1)DR.SATYABRATA DASH</b> Address of Applicant :DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING , GANDHI ENGINEERING COLLEGE, BHUBANESWAR-754006, ODISHA, INDIA. <b>2)DR.HEMRAJ SAINI</b> <b>3)DR.SUJATA CHAKARVARTY</b> <b>4)SWARNAPRABHA JENA</b> <b>5)SUBRAT KUMAR PRADHAN</b> <b>6)MR.BARADA P.PANIGRAHY</b> <b>7)MR.SUBAS CH.NATH</b> <b>8)DR.SUSANTA KUMAR ROUT</b>
(31) Priority Document No	:NA	(72)Name of Inventor : <b>1)DR.SATYABRATA DASH</b> <b>2)DR.HEMRAJ SAINI</b> <b>3)DR.SUJATA CHAKARVARTY</b> <b>4)SWARNAPRABHA JENA</b> <b>5)SUBRAT KUMAR PRADHAN</b> <b>6)MR.BARADA P.PANIGRAHY</b> <b>7)MR.SUBAS CH.NATH</b> <b>8)DR.SUSANTA KUMAR ROUT</b>
(32) Priority Date	:NA	
(33) Name of priority country	:NA	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application	:NA	
Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The proposed invention is a safety equipment and method involves detecting Biological events relate to the patients admitted in hospital with special reference to COVID and out patients regarding monitoring of the health of an individual. The individual wears a health monitoring device, with an attached mask, capable of sensing characteristics of the individual assigning disease event. It can help to monitor the body temperature of a person and intimate about not maintaining the social distance. This smart face shield is to provide an extra layer of protection and to protect the eyes when in close contact with someone that has or is suspected to have COVID-19. The device allows individuals to constantly monitor their health without having to physically visit a doctor or other health care professional.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202031048523 A

(19) INDIA

(22) Date of filing of Application :06/11/2020

(43) Publication Date : 11/12/2020

(54) Title of the invention : SYSTEM AND METHOD FOR HEALTH CARE DATA PROCESSING THROUGH LOT BY USING BLOCKCHAIN TECHNOLOGY

(51) International classification	:G06F16/00	(71)Name of Applicant :
(31) Priority Document No	:NA	<b>1)DR.GEETANJALI RATHEE</b>
(32) Priority Date	:NA	Address of Applicant :DEPARTMENT OF COMPUTER
(33) Name of priority country	:NA	SCIENCE AND ENGINEERING, JAYPEE UNIVERSITY OF
(86) International Application No	:NA	INFORMATION TECHNOLOGY, WAKNAGHAT, SOLAN
Filing Date	:NA	<b>2)DR.HEMRAJ SAINI</b>
(87) International Publication No	: NA	<b>3)DR.SATYABRATA DASH</b>
(61) Patent of Addition to Application Number	:NA	<b>4)DR.SUJATA CHAKARVARTY</b>
Filing Date	:NA	<b>5)DR.SUSANTA KUMAR ROUT</b>
(62) Divisional to Application Number	:NA	<b>6)MR.BARADA P.PANIGRAHY</b>
Filing Date	:NA	(72)Name of Inventor :
		<b>1)DR.GEETANJALI RATHEE</b>
		<b>2)DR.HEMRAJ SAINI</b>
		<b>3)DR.SATYABRATA DASH</b>
		<b>4)DR.SUJATA CHAKARVARTY</b>
		<b>5)DR.SUSANTA KUMAR ROUT</b>
		<b>6)MR.BARADA P.PANIGRAHY</b>

(57) Abstract :

The proposed invention elaborates the Blockchain phenomenon for ensuring the security and transparency of patients record, document accessibility and shipment process among provider and customer. Further, the need of blockchain in healthcare is that it would capture the intermediates activity, patients record information or medicine shipment phenomenon from IoT objects committed to components moves from one place to another or from provider and customer. The illegal activity happening at any part of the communication process can be traced easily. However, the experimental analysis of the proposed model has been measured upon the illegal activities or communications done by malevolent IoT objects.

No. of Pages : 8 No. of Claims : 6



(12) PATENT APPLICATION PUBLICATION

(21) Application No.202141010684 A

(19) INDIA

(22) Date of filing of Application :13/03/2021

(43) Publication Date : 19/03/2021

(54) Title of the invention : ARTIFICIAL INTELLIGENCE BASED SMART TOUCHLESS MEDICINE DISPENSING SYSTEM

<p>(51) International classification</p> <p>(31) Priority Document No</p> <p>(32) Priority Date</p> <p>(33) Name of priority country</p> <p>(86) International Application No</p> <p>Filing Date</p> <p>(87) International Publication No</p> <p>(61) Patent of Addition to Application Number:</p> <p>Filing Date</p> <p>(62) Divisional to Application Number</p> <p>Filing Date</p>	<p>:G07F0017000000, G06Q0050220000, G16H0020130000, A61J0007000000, G16H0020100000</p> <p>:NA</p> <p>:NA</p> <p>:NA</p> <p>:PCT//</p> <p>:01/01/1900</p> <p>: NA</p> <p>:NA</p> <p>:NA</p> <p>:NA</p>	<p>(71)Name of Applicant :</p> <p><b>1)Dr. M. Akiful Haque,Anurag University</b> Address of Applicant :School Of Pharmacy, Anurag University, Venkatapur, Medchal Dist, Hyderabad Telangana India 500088 Telangana India</p> <p><b>2)Dr.Dibyalochan Mohanty,Anurag University</b></p> <p><b>3)Dr.Chembeti Praveen Kumar,Ratnam Institute of Pharmacy</b></p> <p><b>4)Mr.Venugopalaiah Penabaka,Ratnam Institute of Pharmacy</b></p> <p><b>5)Dr.Pratap Kumar Patra,Sree Dattha Institute of Pharmacy</b></p> <p><b>6)Ladi Alik Kumar,Centurian University of Technology and Management</b></p> <p><b>7)Anjana Devi,Career Point University</b></p> <p><b>8)Bhawana Bhatt,Shri Guru Ram Rai University</b></p> <p><b>9)Sudhakar Kaushik,Shri Guru Ram Rai University</b></p> <p><b>10)Mr. Neeraj Bhandari,Sri Sai College Of Pharmacy</b></p> <p><b>11)Mr. Tarun Kumar,Laureate Institute of Pharmacy</b></p> <p><b>12)Mr. Sanjay Kumar,Gautam college of Pharmacy</b></p> <p>(72)Name of Inventor :</p> <p><b>1)Dr. M. Akiful Haque,Anurag University</b></p> <p><b>2)Dr.Dibyalochan Mohanty,Anurag University</b></p> <p><b>3)Dr.Chembeti Praveen Kumar,Ratnam Institute of Pharmacy</b></p> <p><b>4)Mr.Venugopalaiah Penabaka,Ratnam Institute of Pharmacy</b></p> <p><b>5)Dr.Pratap Kumar Patra,Sree Dattha Institute of Pharmacy</b></p> <p><b>6)Ladi Alik Kumar,Centurian University of Technology and Management</b></p> <p><b>7)Anjana Devi,Career Point University</b></p> <p><b>8)Bhawana Bhatt,Shri Guru Ram Rai University</b></p> <p><b>9)Sudhakar Kaushik,Shri Guru Ram Rai University</b></p> <p><b>10)Mr. Neeraj Bhandari,Sri Sai College Of Pharmacy</b></p> <p><b>11)Mr. Tarun Kumar,Laureate Institute of Pharmacy</b></p> <p><b>12)Mr. Sanjay Kumar,Gautam college of Pharmacy</b></p>
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(57) Abstract :

In this pandemic era, technology dependent solutions are demanded for preventing the spread of contagious disease COVID-19 as the medical officers have themselves become victim to the disease while treating the patients. Eventually, the patients has to be cured which is possible by providing timely medication. This invention proposes an autonomous touchless medicine dispensing system for providing service to victims in the hospital ward based on Artificial Intelligence algorithm. Lack of experienced medical officers, also leads to huge death of human life. The proposed system is an innovative robotic mobile system able to provide timely medication to save human life to greater extent without the issue of pandemic spread. 3D modeling of the system is done using Pro- Engineer software. The system is able to detect specific patient using infrared technique which scans the unique digital code allocated for the patient bed. Dispensing of the medicine is done based on infrared counter where the medicines are dispensed based on doctor<sup>TM</sup>s prescription. Medicines are dispensed touchless in disposable containers to every patient autonomously at their ward itself. This system is efficient in providing immediate medication without any considerable delay to the victims without human intervention.

No. of Pages : 11 No. of Claims : 6



Australian Government

IP Australia

# CERTIFICATE OF GRANT INNOVATION PATENT

**Patent number:** 2021102320

The Commissioner of Patents has granted the above patent on 9 June 2021, and certifies that the below particulars have been registered in the Register of Patents.

**Name and address of patentee(s):**

Sunita Satapathy of Centurion University of Tech. & Mgmt Bhubaneswar Odisha India

Yashaswi Nayak of Associate Professor and Dean, Zoology, School of Applied Sciences, Centurion University of Tech and Mgmt Bhubaneswar Odisha India

Kunja Bihari Satapathy of Professor Emeritus, Botany, School of Applied Sciences, Centurion University of Tech and Mgmt Bhubaneswar Odisha India

Susanta Kumar Biswal of Professor, Chemistry, School of Applied Sciences, Centurion University of Tech. & Mgmt Bhubaneswar Odisha India

Satyasis Mishra of Professor, Electronics & Communication Engineering, Centurion University of Tech and Mgmt Bhubaneswar Odisha India

**Title of invention:**

Soil fertility in vermicomposting prediction utilizing WCA based Deep CNN-Model for the agricultural-domain

**Name of inventor(s):**

Satapathy, Sunita; Nayak, Yashaswi; Satapathy, Kunja Bihari; Biswal, Susanta Kumar and Mishra, Satyasis

**Term of Patent:**

Eight years from 2 May 2021

NOTE: This Innovation Patent cannot be enforced unless and until it has been examined by the Commissioner of Patents and a Certificate of Examination has been issued. See sections 120(1A) and 129A of the Patents Act 1990, set out on the reverse of this document.



Dated this 9<sup>th</sup> day of June 2021

Commissioner of Patents

**PATENTS ACT 1990**

The Australian Patents Register is the official record and should be referred to for the full details pertaining to this IP Right.

## Extracts from the Patents Act, 1990

**Sect 120(1A)** Infringement proceedings in respect of an innovation patent cannot be started unless the patent has been certified.

**Sec 128**                      **Application for relief from unjustified threats**

- (1) Where a person, by means of circulars, advertisements or otherwise, threatens a person with infringement proceedings or other similar proceedings a person aggrieved may apply to a prescribed court, or to another court having jurisdiction to hear and determine the application, for:
- (a) a declaration that the threats are unjustifiable; and
  - (b) an injunction against the continuance of the threats; and
  - (c) the recovery of any damages sustained by the applicant as a result of the threats.
- (2) Subsection (1) applies whether or not the person who made the threats is entitled to, or interested in, the patent or a patent application.

**Sec 129A**                      **Threats related to an innovation patent application or innovation patent and courts power to grant relief.**

*Certain threats of infringement proceedings are always unjustifiable.*

- (1) If:
- (a) a person:
    - (i) has applied for an innovation patent, but the application has not been determined; or
    - (ii) has an innovation patent that has not been certified; and
  - (b) the person, by means of circulars, advertisements or otherwise, threatens a person with infringement proceedings or other similar proceedings in respect of the patent applied for, or the patent, as the case may be; then, for the purposes of an application for relief under section 128 by the person threatened, the threats are unjustifiable.

*Courts power to grant relief in respect of threats made by the applicant for an innovation patent or the patentee of an uncertified innovation patent*

- (2) If an application under section 128 for relief relates to threats made in respect of an innovation patent that has not been certified or an application for an innovation patent, the court may grant the application the relief applied for.

*Courts power to grant relief in respect of threats made by the patentee of certified innovation patent*

- (3) If an application under section 128 for relief relates to threats made in respect of a certified innovation patent, the court may grant the applicant the relief applied for unless the respondent satisfies the court that the acts about which the threats were made infringed, or would infringe, a claim that is not shown by the applicant to be invalid.

**Schedule 1**                      **Dictionary**

**certified**, in respect of an innovation patent other than in section 19, means a certificate of examination issued by the Commissioner under paragraph 101E(e) in respect of the patent





Australian Government

IP Australia

# CERTIFICATE OF GRANT INNOVATION PATENT

**Patent number:** 2020103242

The Commissioner of Patents has granted the above patent on 3 March 2021, and certifies that the below particulars have been registered in the Register of Patents.

**Name and address of patentee(s):**

R. Bhaskaran of Department of Information Technology PSNA College of Engineering and Technology, K R Nagar, Dindigul, Tamil Nadu, 624622 India

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Sandeep Rout of Faculty of Agriculture, Sri Sri University Cuttack, Odisha- 754006 India

Ajay Kumar Prusty of Dept of Agricultural Ext & Communication, M S Swaminathan School of Agriculture Centurion University of Technology and Management, R. Sitapur, Gajapati, Odisha, 761211 India

**Title of invention:**

Prevention of food harmfulness from production to customer for centralized kitchen facility using IoT

**Name of inventor(s):**

Bhaskaran, R.; Dekate, Hiren; Kumar, P. Ravindra; Gurusamy, M.; Kumar, D. Krishna; Swarupa, P. Uma; Sangale, Mohan Dattu; Katakam, Satyanarayana; Rout, Sandeep and Prusty, Ajay Kumar

**Term of Patent:**

Eight years from 4 November 2020

NOTE: This Innovation Patent cannot be enforced unless and until it has been examined by the Commissioner of Patents and a Certificate of Examination has been issued. See sections 120(1A) and 129A of the Patents Act 1990, set out on the reverse of this document.



Dated this 3<sup>rd</sup> day of March 2021

Commissioner of Patents

**PATENTS ACT 1990**

The Australian Patents Register is the official record and should be referred to for the full details pertaining to this IP Right.



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# CERTIFICATE OF GRANT INNOVATION PATENT

Patent number: 2020103242



Dated this 3<sup>rd</sup> day of March 2021

Commissioner of Patents

**PATENTS ACT 1990**

The Australian Patents Register is the official record and should be referred to for the full details pertaining to this IP Right.



## Extracts from the Patents Act, 1990

**Sect 120(1A)** Infringement proceedings in respect of an innovation patent cannot be started unless the patent has been certified.

**Sec 128**                    **Application for relief from unjustified threats**

- (1) Where a person, by means of circulars, advertisements or otherwise, threatens a person with infringement proceedings or other similar proceedings a person aggrieved may apply to a prescribed court, or to another court having jurisdiction to hear and determine the application, for:
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  - (b) an injunction against the continuance of the threats; and
  - (c) the recovery of any damages sustained by the applicant as a result of the threats.
- (2) Subsection (1) applies whether or not the person who made the threats is entitled to, or interested in, the patent or a patent application.

**Sec 129A**                    **Threats related to an innovation patent application or innovation patent and courts power to grant relief.**

*Certain threats of infringement proceedings are always unjustifiable.*

- (1) If:
- (a) a person:
    - (i) has applied for an innovation patent, but the application has not been determined; or
    - (ii) has an innovation patent that has not been certified; and
  - (b) the person, by means of circulars, advertisements or otherwise, threatens a person with infringement proceedings or other similar proceedings in respect of the patent applied for, or the patent, as the case may be; then, for the purposes of an application for relief under section 128 by the person threatened, the threats are unjustifiable.

*Courts power to grant relief in respect of threats made by the applicant for an innovation patent or the patentee of an uncertified innovation patent*

- (2) If an application under section 128 for relief relates to threats made in respect of an innovation patent that has not been certified or an application for an innovation patent, the court may grant the application the relief applied for.

*Courts power to grant relief in respect of threats made by the patentee of certified innovation patent*

- (3) If an application under section 128 for relief relates to threats made in respect of a certified innovation patent, the court may grant the applicant the relief applied for unless the respondent satisfies the court that the acts about which the threats were made infringed, or would infringe, a claim that is not shown by the applicant to be invalid.

**Schedule 1**                    **Dictionary**

**certified**, in respect of an innovation patent other than in section 19, means a certificate of examination issued by the Commissioner under paragraph 101E(e) in respect of the patent





Australian Government

IP Australia

# CERTIFICATE OF GRANT INNOVATION PATENT

**Patent number:** 2021100000

The Commissioner of Patents has granted the above patent on 3 March 2021, and certifies that the below particulars have been registered in the Register of Patents.

**Name and address of patentee(s):**

Hiren Madhukar Dekate of Assistant Professor, Zoology, ICLES Motilal Jhunjhunwala College Sector-9A, Vashi, Navi Mumbai Maharashtra -400703. India

Sesha Bhargavi Velagaleti of Assistant Professor, Department of Information Technology G Narayanamma Institute of Technology and Sciences, Shaikpet, Hyderabad, Telangana- 500104 India

Ashok Abhishek of Assistant Professor, Department of Education, J.J.College Jhumri Telaiya, Koderma, 825409 India

Sandeep Rout of Assistant Professor, Faculty of Agriculture, Sri Sri University Cuttack Odisha 754006 India

Rajesh Bhatt of Assistant Professor, Department of Management, Mewar University NH-79, Gangrar (Dist. Chittorgarh), Rajasthan 312901. India

G.R. Kannan of Professor, Department of Mechanical Engineering, PSNA College of Engineering and Technology PSNA College of Engineering and Dindigul 624622 India

Tulika Chakrabarti of Assistant Professor (Grade-A), Dept.of Chemistry, Sir Padampat Singhania University Udaipur Rajasthan 313601 India

Ananda Shankar Hati of Assistant Professor, (Electrical Engineering), Dept. of Mining Machinery Engineering Indian Institute of Technology (Indian School of Mines), Dhanbad, Jharkhand- 826004 India

Ajay Kumar Prusty of Assistant Professor, Department of Agricultural Extension, M S Swaminathan School of Agriculture Centurion University of Technology and Management, Gajapati, Odisha, 761211 India

Sitanshu Sekhar Patra of Phd Research Scholar, Department of Meteorology & Oceanography, College of Science and Technology Andhra University, Visakhapatnam Andhra Pradesh 530003 India

Prasun Chakrabarti of Provost & Institute Endowed Distinguished, Senior Chair Professor, Techno India NJR Institute of Technology Udaipur, Rajasthan - 313003 India

R. Ranjith Kumar of Assistant professor, Department of Civil Engineering, SRM Institute of Science & Technology Delhi NCR Campus, Modinagar, Ghaziabad, Uttar Pradesh 201204 India

**Title of invention:**

A method to measure the air pollution impact on terrestrial and natural vegetation in urban locations

**Name of inventor(s):**

Dekate, Hiren Madhukar; Velagaleti, Sesha Bhargavi; Abhishek, Ashok; Rout, Sandeep; Bhatt, Rajesh; Kannan, G.R.; Chakrabarti, Tulika; Hati, Ananda Shankar; Prusty, Ajay Kumar; Patra, Sitanshu Sekhar; Chakrabarti, Prasun and Ranjith Kumar, R.

**Term of Patent:**



Dated this 3<sup>rd</sup> day of March 2021

Commissioner of Patents

**PATENTS ACT 1990**

The Australian Patents Register is the official record and should be referred to for the full details pertaining to this IP Right.





Australian Government

IP Australia

# CERTIFICATE OF GRANT INNOVATION PATENT

**Patent number:** 2021100000

Eight years from 1 January 2021

NOTE: This Innovation Patent cannot be enforced unless and until it has been examined by the Commissioner of Patents and a Certificate of Examination has been issued. See sections 120(1A) and 129A of the Patents Act 1990, set out on the reverse of this document.



Dated this 3<sup>rd</sup> day of March 2021

Commissioner of Patents

**PATENTS ACT 1990**

The Australian Patents Register is the official record and should be referred to for the full details pertaining to this IP Right.

## Extracts from the Patents Act, 1990

**Sect 120(1A)** Infringement proceedings in respect of an innovation patent cannot be started unless the patent has been certified.

**Sec 128**                    **Application for relief from unjustified threats**

- (1) Where a person, by means of circulars, advertisements or otherwise, threatens a person with infringement proceedings or other similar proceedings a person aggrieved may apply to a prescribed court, or to another court having jurisdiction to hear and determine the application, for:
- (a) a declaration that the threats are unjustifiable; and
  - (b) an injunction against the continuance of the threats; and
  - (c) the recovery of any damages sustained by the applicant as a result of the threats.
- (2) Subsection (1) applies whether or not the person who made the threats is entitled to, or interested in, the patent or a patent application.

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- (1) If:
- (a) a person:
    - (i) has applied for an innovation patent, but the application has not been determined; or
    - (ii) has an innovation patent that has not been certified; and
  - (b) the person, by means of circulars, advertisements or otherwise, threatens a person with infringement proceedings or other similar proceedings in respect of the patent applied for, or the patent, as the case may be; then, for the purposes of an application for relief under section 128 by the person threatened, the threats are unjustifiable.

*Courts power to grant relief in respect of threats made by the applicant for an innovation patent or the patentee of an uncertified innovation patent*

- (2) If an application under section 128 for relief relates to threats made in respect of an innovation patent that has not been certified or an application for an innovation patent, the court may grant the application the relief applied for.

*Courts power to grant relief in respect of threats made by the patentee of certified innovation patent*

- (3) If an application under section 128 for relief relates to threats made in respect of a certified innovation patent, the court may grant the applicant the relief applied for unless the respondent satisfies the court that the acts about which the threats were made infringed, or would infringe, a claim that is not shown by the applicant to be invalid.

**Schedule 1**                    **Dictionary**

**certified**, in respect of an innovation patent other than in section 19, means a certificate of examination issued by the Commissioner under paragraph 101E(e) in respect of the patent





Australian Government

IP Australia

# CERTIFICATE OF GRANT INNOVATION PATENT

**Patent number:** 2021100002

The Commissioner of Patents has granted the above patent on 3 March 2021, and certifies that the below particulars have been registered in the Register of Patents.

**Name and address of patentee(s):**

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Deepa Nair of Assistant Professor, MMS - Systems and HR Department, GNVS Institite of Management R Jaimal Singh Marg, Sion ( East), GTB Nagar , Mumbai - 400032 India

Sandeep Rout of Assistant Professor, Faculty of Agriculture, Sri Sri University Cuttack ,Odisha-754006 India

R. Sabitha of Professor, Department of ECE Hindustan college of Engineering and Technology, Valley Campus, Coimbatore, Tamil Nadu- 641032 India

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Prathik A of Assistant Professor, Department of computer science Vel Tech Rangarajan Dr.Sagunthala R&D Institute of Science and Technology, Chennai India

Tulika Chakrabarti of Assistant Professor (Grade-A), Dept.of Chemistry, Sir Padampat Singhania University Udaipur , Rajasthan- 313601 India

Sitanshu Sekhar Patra of Phd Research Scholar, Department of Meteorology & Oceanography, College of Science and Technology Andhra University, Visakhapatnam Andhra Pradesh, 530003 India

Ajay Kumar Prusty of Assistant Professor, Department of Agricultural Extension, M S Swaminathan School of Agriculture Centurion University of Technology and Management, Gajapati, Odisha, 761211 India

Kalyani Pradhan of Assistant Professor, Faculty of Agriculture, Sri Sri University, Sri Sri Vihar Cuttack 754006 India

Reddappa H.N of Associate Professor, Department of Mechanical Engineering, Bangalore Institute of Technology K. R. Road,V. V. Pura, Bengaluru, Karnataka - 560 004 India

Prasun Chakrabarti of Provost & Institute Endowed Distinguished, Senior Chair Professor, Techno India NJR Institute of Technology Udaipur, Rajasthan - 313003 India

**Title of invention:**

TECHNIQUE TO GIS MODELLING OF WATER BODIES BY MAPPING RIPARIAN VEGETATION ALONG THE SHORE

**Name of inventor(s):**

Mahendran, S.; Nair, Deepa; Rout, Sandeep; Sabitha, R.; Uma, K; A, Prathik; Chakrabarti, Tulika; Patra, Sitanshu Sekhar; Prusty, Ajay Kumar; Pradhan, Kalyani; H.N, Reddappa and Chakrabarti, Prasun

**Term of Patent:**



Dated this 3<sup>rd</sup> day of March 2021

Commissioner of Patents

**PATENTS ACT 1990**

The Australian Patents Register is the official record and should be referred to for the full details pertaining to this IP Right.

This data, for application number 2021100002, is current as of 2021-03-18 21:00 AEST



Australian Government

IP Australia

# CERTIFICATE OF GRANT INNOVATION PATENT

**Patent number:** 2021100002

Eight years from 1 January 2021

NOTE: This Innovation Patent cannot be enforced unless and until it has been examined by the Commissioner of Patents and a Certificate of Examination has been issued. See sections 120(1A) and 129A of the Patents Act 1990, set out on the reverse of this document.



Dated this 3<sup>rd</sup> day of March 2021

Commissioner of Patents

**PATENTS ACT 1990**

The Australian Patents Register is the official record and should be referred to for the full details pertaining to this IP Right.



## Extracts from the Patents Act, 1990

**Sect 120(1A)** Infringement proceedings in respect of an innovation patent cannot be started unless the patent has been certified.

**Sec 128**                                **Application for relief from unjustified threats**

- (1) Where a person, by means of circulars, advertisements or otherwise, threatens a person with infringement proceedings or other similar proceedings a person aggrieved may apply to a prescribed court, or to another court having jurisdiction to hear and determine the application, for:
- (a) a declaration that the threats are unjustifiable; and
  - (b) an injunction against the continuance of the threats; and
  - (c) the recovery of any damages sustained by the applicant as a result of the threats.
- (2) Subsection (1) applies whether or not the person who made the threats is entitled to, or interested in, the patent or a patent application.

**Sec 129A**                                **Threats related to an innovation patent application or innovation patent and courts power to grant relief.**

*Certain threats of infringement proceedings are always unjustifiable.*

- (1) If:
- (a) a person:
    - (i) has applied for an innovation patent, but the application has not been determined; or
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  - (b) the person, by means of circulars, advertisements or otherwise, threatens a person with infringement proceedings or other similar proceedings in respect of the patent applied for, or the patent, as the case may be; then, for the purposes of an application for relief under section 128 by the person threatened, the threats are unjustifiable.

*Courts power to grant relief in respect of threats made by the applicant for an innovation patent or the patentee of an uncertified innovation patent*

- (2) If an application under section 128 for relief relates to threats made in respect of an innovation patent that has not been certified or an application for an innovation patent, the court may grant the application the relief applied for.

*Courts power to grant relief in respect of threats made by the patentee of certified innovation patent*

- (3) If an application under section 128 for relief relates to threats made in respect of a certified innovation patent, the court may grant the applicant the relief applied for unless the respondent satisfies the court that the acts about which the threats were made infringed, or would infringe, a claim that is not shown by the applicant to be invalid.

**Schedule 1**                                **Dictionary**

**certified**, in respect of an innovation patent other than in section 19, means a certificate of examination issued by the Commissioner under paragraph 101E(e) in respect of the patent



(54) Title of the invention : HERBAL CAKE COMPOSITION FOR GASTRITIS AND PREPARATION METHOD FOR THE SAME

	<p>(71)Name of Applicant :          1)Dr.Aruna Kumari Nakkella          Address of Applicant :Assistant Principal, Dr.BR. Ambedkar University, Srikalakulam, D.No: 20-14-13, Ramachandra Rao Peta, Near SBI, Kambal Tank Branch, Rajamahendravaram, East Godavari, Andhra Pradesh, India-533103. Andhra Pradesh India          2)Dr.Surendra Kumar Agarwal          3)Dr.Sandeep Raut          4)Mr.Gyanaranjan Sahoo          5)Dr.Kamanshish Malla</p>
(51) International classification	:A61K 36/752
(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
	<p>(72)Name of Inventor :          1)Dr.Aruna Kumari Nakkella          2)Dr.Surendra Kumar Agarwal          3)Dr.Sandeep Raut          4)Mr.Gyanaranjan Sahoo          5)Dr.Kamanshish Malla          6)Dr.Asha Mathew          7)Dr.Sulochana Munga          8)Dr.Manjulata Upadhyaya          9)Dr.Kokila S          10)Dr.N.Padmaja          11)Mr.Devendra Singh          12)Dr.Kalyani Pradhan          13)Mr.Ajay Kumar Prusty</p>

## (57) Abstract :

ABSTRACT: Title: Herbal Cake Composition for Gastritis and Preparation Method for the Same The present disclosure proposes a herbal health product for treating gastritis patients with better efficiency that contains low-sugar and low fat with ease to intake the product by the patient. The method of preparation provides the composition in the form of a cake that enables the user to consume the herbal cake with ease and enhanced interest. The proposed herbal cake composition utilizes: amla seed powder that aids to relieve inflammation and infection associated with uterus and cervix and helps to reduce gastric problems and gastritis and utilizes jamun seed powder that aids to combat sores, inflammation and ulcers in the intestines. The herbal cake composition is prepared using a preparation method that mixes the amla seed powder and the jamun seed powder separately in order to avoid loss of individual medicinal properties.

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

(54) Title of the invention : ECLIPTA ALBA BASED COMPOSITION FOR HAEMORRHOIDS AND ITS PREPARATION METHOD THEREOF

(51) International classification

:A61K  
36/00

(31) Priority Document No

:NA

(32) Priority Date

:NA

(33) Name of priority country

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(57) Abstract :

ABSTRACT: Title: Eclipta Alba based Composition for Haemorrhoids and its Preparation Method Thereof The present disclosure proposes an edible composition with eclipta alba for the treatment of haemorrhoids without any additional herbal ingredients. The edible eclipta alba composition for haemorrhoids does not have any side effects. The proposed eclipta alba composition can be prepared at home by the patient with ease. The edible composition also aids to treat other stomach related ailments such as heat. The edible composition treats haemorrhoids with enhanced efficiency.

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(12) PATENT APPLICATION PUBLICATION

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(19) INDIA

(22) Date of filing of Application :21/04/2021

(43) Publication Date : 30/04/2021

(54) Title of the invention : ARTIFICIAL INTELLIGENCE BASED ANIMAL DETECTION AND IDENTIFICATION FOR PROTECTION OF FIELD CROPS

(51) International classification :A01M0029160000,  
G06Q0050020000,  
A01M0029100000,  
G06K0009620000,  
A01M0031000000

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(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 :

ABSTRACT: Title: Artificial Intelligence Based Animal Detection and Identification System for Protection of Field Crops. The present disclosure proposes an artificial intelligence based animal detection and identification system for protection of field crops from wild animals. The system comprises of an animal detection module 101, a video capturing module 102, a position detection module 103, an image processing module 104, a projection module 105, and a sound producing module 106. The system 100 system protects the field crops from wild animals by projecting 3-D image along with sounds of a natural enemy animal. The proposed system projects three dimensional images of multiple natural enemy animals based on number of the identified animals in the protection system is capable of detecting animals in any climate condition, such as in hot weather condition. The proposed system does not cause any harm to the animals or the environment, or inconvenience to humans who might enter the protected area.

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



(12) PATENT APPLICATION PUBLICATION

(21) Application No.202131028359 A

(19) INDIA

(22) Date of filing of Application :24/06/2021

(43) Publication Date : 16/07/2021

(54) Title of the invention : METHODS AND SYSTEMS FOR AGRICULTURAL WORK BY SMART AGRICULTURE FIELD BOUNDARY WITH AI & ICT

(51) International classification	:A01B0079000000, G06Q0050020000, A01B0069040000, G06T0005000000, A01D0041127000	(71)Name of Applicant : <b>1)DR.SATYABRATA DASH</b> Address of Applicant :ASSOCIATE PROFESSOR, DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING,RAMACHANDRA COLLEGE OF ENGINEERING(RCE),NH-16 BYPASS ROAD,VATLURU(V),ELURU,534007, WEST GODAVARI DT.,A.P.,INDIA <b>2)DR.VADHRI SURYANARAYANA</b> <b>3)DR.RABI NARAYAN SATHAPATHY</b> <b>4)DR.JARABALA RANGA</b> <b>5)MR.BARADA P.PANIGRAHY</b> <b>6)DR.SUBASH CHANDRA NATH</b> <b>7)DR.S.JAYA LAKSHMI</b> <b>8)DR.SUJATA CHAKARVARTY</b> <b>9)DR.HEMRAJ SAINI</b> <b>10)DR.SUSANTA KUMAR ROUT</b>
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(32) Priority Date	:NA	
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(57) Abstract :

The present invention relates to monitoring, controlling and analyzing the today's farming environment through smart devices in the agriculture field without creating any harm to human being or animals and also it will not create any environmental pollution. More specifically it relates to the agriculture land safety using IoT devices with cost efficient real time surveillance.

No. of Pages : 14 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202131001373 A

(19) INDIA

(22) Date of filing of Application :12/01/2021

(43) Publication Date : 12/02/2021

(54) Title of the invention : SMART ATTENDANCE AND BODY TEMPERATURE MONITORING SYSTEM AT WORKING SITE.

(51) International classification	:G07C0001100000, H04N0007180000, G06Q0010060000, B63H0001000000, H04L0029080000	(71)Name of Applicant : <b>1)DR.SATYABRATA DASH</b> Address of Applicant :DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING, GANDHI ENGINEERING COLLEGE, BHUNANESWAR,ORISSA. <b>2)DR.HEMRAJ SAINI</b> <b>3)DR.SUJATA CHAKARVARTY</b> <b>4)SWARNA PRABHA JENA</b> <b>5)SUBRAT KUMAR PRADHAN</b> <b>6)MR.BARADA P.PANIGRAHY</b> <b>7)DR.SUBAS CH. NATH</b> <b>8)DR.SUSANTA KUMAR ROUT</b>
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(32) Priority Date	:NA	
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(57) Abstract :

The proposed invention (Device) provides an attendance system to the working place. The system also used for safety and security in critical regions such as Offices, working places,airports, railway-stations and classroom attendance etc. The objective of this invention is to automate the person"s identity at the check-in point and to monitor the body temperature of the covid 19 patients in emergency medical situations who are seriously ill with the aim of stabilizing them without moving to their place. This motivation includes reduced manual process, staffing and shorter processing times. The proposed technology that promises greater convenience for users by simplifying and speed up the process.

No. of Pages : 8 No. of Claims : 7