



**M.KUMARASAMY**  
**COLLEGE OF ENGINEERING**

NAAC Accredited Autonomous Institution

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ISO 9001:2015 & ISO 14001:2015 Certified Institution

Thalavapalayam, Karur – 639 113.



## NAAC CRITERIA 2


### **2.2.1 CATERING TO STUDENT DIVERSITY PATENT – 2022 – 2023**

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<b>1</b>	<b>Department of Civil Engineering</b>	<b><u>2</u></b>
<b>2</b>	<b>Department of Electronics and Communication Engineering</b>	<b><u>5</u></b>
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DEPARTMENT OF CIVIL ENGINEERING  
PATENT DETAILS

S. No.	Department	Inventors Name	Application Number	Title of the patent	Date of Filing	Current Status (Filed/Published/Granted)	Date (Published/Granted)	Patent by Indian or other Country (Mention Country Name)
1	CIVIL	M.Sandhiya	202241036666	Method of preparing organic filter paper for removing water hardness	27.06.2022	Published	01.07.2022	<a href="https://ipindiaservices.gov.in/publicsearch">https://ipindiaservices.gov.in/publicsearch</a>
		R.Vetturayasudharsanan						
		G.Balaji						
		V.Ragavi						
		I.Subiksha						
C.Shivaranjith								
2	CIVIL	P.Mukesh	202241070273	Percolation leakage promoting method for deep drainage	06.12.2022	Published	09.12.2022	
		G.Balaji						
		R.Vetturayasudharsanan						
		P.Nandhakumar						
		V.R.Mathivanan						
		L.Vishnu						
		R.Deepika						
		D.Bhavadharani						
K.Harikrishnan								
M.Amirtham								
3	CIVIL	P.Mukesh	202241070613	Pipe cleaning auto mono injector	07.12.2022	Published	30.12.2022	
		G.Balaji						
		2+A20:A27						
		M.Saran						
		M.Sudharsan						
		S.Santhoshkumar						
B.Paramkumar								

  
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(12) PATENT APPLICATION PUBLICATION

(21) Application No.20224103666 A

(19) INDIA

(22) Date of filing of Application :27/06/2022

(43) Publication Date : 01/07/2022

(54) Title of the invention ; METHOD OF PREPARING ORGANIC FILTER PAPER FOR REMOVING WATER HARDNESS

(51) International classification :D21B0001340000, A61Q0017040000, H01L0051000000, B44C0005040000, G01N0021780000

(56) International Application No :NA  
Filing Date :NA

(57) 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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(7) Abstract :

The present invention discloses a method (50) of preparing an organic filter paper for removing the hardness in water. The method comprising the steps of: Collecting (60) the waste papers in a required form; Shredding (65) of waste papers and pulping the wastes in hydro pulper by adding 2 litres of water the 100 grams of paper; Infusing (75) 1 gram of Citrus aurantiumdulcis, 1 gram of Strychnospotatorum and 3 grams of Moringaoleifera into the 100ml of paper pulp; Pouring (80) the said (step iii) mixture into univat screener for converting the pulp into sheet, by draining the water to obtain the filter paper; and, Drying (85) the said (step iv) paper in a hot air oven at 80°C about 20 minutes to obtain the end form of organic filter (90).

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202241070273 A

(19) INDIA

(22) Date of filing of Application :06/12/2022

(43) Publication Date : 09/12/2022

(54) Title of the invention : Percolation Leakage Promoting Method for Deep Drainage

(51) International classification :B09C0001000000, E02B0011000000, C02F0003100000, E03F0001000000, E21B0043380000  
(86) International Application No :PCT//  
Filing Date :01/01/1900  
(87) International Publication No : NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

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6)Vishnu L  
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9)Harikrishnan K  
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(57) Abstract :

The invention, which relates to the technical field of groundwater artificial recharge, discloses a method for promoting groundwater recharge and infiltration. According to the method, drill a 6 bore hole to a depth of 60 feet, where the water table is typically present in most regions. Drill these bore holes at the intersection of a road or street to collect as much rainwater that falls on the road as possible. In order to prevent the bore hole from collapsing and causing soil erosion, perforated casing pipe must be inserted throughout it after the bore hole has been dug. Water can move from a region of lower concentration to a region of higher concentration through perforated casing pipes. This filter medium is made up of three layers: fine aggregate, which filters the finite particles like dust and sand; charcoal, which kills the microorganisms; and coarse aggregate, which regulates the water flow quickly. As rainwater from roads and streets contains more dust, sand, and other materials that may block the small perforations present in the water table, it may stop the passage of rainwater to the groundwater table, leading to stagnant water. Perforated casing pipes allow the water to pass from a lower concentration region to a higher concentration region and vice versa. Because rainwater from roads and streets contains more dust, sand, and other particles, it can clog the small perforations in the water table and prevent rainwater from reaching the groundwater table, resulting in stagnant water. This filter medium is composed of three layers: fine aggregate, which filters the finite particles like dust and sand, charcoal, which kills microorganisms, and coarse aggregate, which regulates the water flow quickly and efficiently.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202241070613 A

(19) INDIA

(43) Publication Date : 30/12/2022

(22) Date of filing of Application :07/12/2022

(54) Title of the invention : PIPE CLEANING AUTO MONO INJECTOR

(51) International classification :B08B0009045000, F03B0017060000, B08B0009049000, B08B0009032000, B08B0009051000

(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 Application Number :NA  
Filing Date :NA

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(57) Abstract :

The invention, which relates to the technical field of pipe cleaning auto mono injector which will reduce the settlement of particles inside the pipe by cleaning. This invention is used to monitor and to clear the obstacle in pipes. Initially the cleaning plan is analysis by the operator, based on the size of the pipe the device is modified by adjusting its height and then auto mono pipe injector is inserted into the pipe for cleaning purpose. The device is controlled and monitor by using remote. The front portion have a vibrating blade which is used to remove hard stains inside the pipe, and it also have rotating brushes at back portion of the device which is continuously rotate with water or air to remove the dust particles. Initially, the cleaning plan is analysed by the operator; based on the size of the pipe, the device is modified by adjusting its height, and then an auto-mono pipe injector is inserted into the pipe for cleaning purposes. The device is controlled and monitored using a remote. The front portion has a vibrating blade, which is used to remove hard stains inside the pipe, and it also has rotating brushes at the back portion of the device, which are continuously rotated with water or air to remove the dust particles.

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



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**PATENT DETAILS (2022-2023)**

S. No.	Title of the Invention	Status of Patent	Patent Application Number & Filing / Publication /Granted Date	Name of the Applicant(s)	Name of the inventor(s)
1	IOT WITH ARTIFICIAL INTELLIGENCE (AI) IS BASED ON THE USE OF SMART CHIPS TO CREATE AN EMBEDDED OPERATING SYSTEM WITH A HIGH LEVEL OF CONFIDENCE	Published	202211043968 & Publication Date: 01/08/2022	PROF.(DR.)RAHUL KUMAR MISHRA	PROF.(DR.)RAHUL KUMAR MISHRA
				R. P. MEENAAKSHI SUNDHARI	R. P. MEENAAKSHI SUNDHARI
				PROF. APURVA INDRODIA	PROF. APURVA INDRODIA
				<b>DR.S.VIMALNATH</b>	<b>DR.S.VIMALNATH</b>
				DR. SRIDHAR K	DR. SRIDHAR K
				MR. GAURAV D SAXENA	MR. GAURAV D SAXENA
				DR. RAJESH B	DR. RAJESH B
				SURVASE	SURVASE
				MRS.S.VARSHAVARDHINI	MRS.S.VARSHAVARDHINI
				DR V GIRIJA	DR V GIRIJA
				DR. NRUPURA RAMNATH DIXIT	DR. NRUPURA RAMNATH DIXIT
DR. HARIKUMAR PALLATHADKA	DR. HARIKUMAR PALLATHADKA				
2	A HYBRID MODEL OF INTERNET OF THINGS (IOT) AND CLOUD COMPUTING TO MANAGE BIG DATA IN SMART HOME	Published	202241043452 & Publication Date: 29/07/2022	DR.VIGNESH RAMAMOORTHY H	DR.VIGNESH RAMAMOORTHY H
				DEEPA MANOJ NAIR	DEEPA MANOJ NAIR
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				THIMMAIAH BAYAVANDA CHINNAPPA	THIMMAIAH BAYAVANDA CHINNAPPA
				SURBHI KHARE	SURBHI KHARE
				ARUNKUMAR N	ARUNKUMAR N
				DR.M.ARUNACHALAM	DR.M.ARUNACHALAM
<b>DR.E.DINESH</b>	<b>DR.E.DINESH</b>				

S. No.	Title of the Invention	Status of Patent	Patent Application Number & Filing / Publication /Granted Date	Name of the Applicant(s)	Name of the inventor(s)
3	AI AND THE INTERNET OF THINGS (IOT) ARE USED TOGETHER TO MAKE A SAFE ROUTING ALGORITHM FOR MOBILE AD-HOC NETWORKS THAT SAVE ENERGY	Published	202241064060 & Publication Date: 09/11/2022	MR.T R ARUNKUMAR	MR.T R ARUNKUMAR
				MS. SRILATHA TOOMULA	MS. SRILATHA TOOMULA
				MR. CHIRUMAMILLA SIVA SAI KUMAR	MR. CHIRUMAMILLA SIVA SAI KUMAR
				DR. G. HEMANTH KUMAR YADAV	DR. G. HEMANTH KUMAR YADAV
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				MR. MD KERAMOT HOSSAIN MONDAL	MR. MD KERAMOT HOSSAIN MONDAL
				MANAS KUMAR ROY	MANAS KUMAR ROY
				<b>DR.S.VIMALNATH</b>	<b>DR.S.VIMALNATH</b>
				MR. ANNAM KARTHIK	MR. ANNAM KARTHIK
				DR. HARIKUMAR PALLATHADKA	DR. HARIKUMAR PALLATHADKA
4	DESIGN OF FRAMEWORK FOR AN EFFICIENT RADIO FREQUENCY SPECTRUM UTILIZATION TECHNIQUE FOR COGNITIVE RADIO NETWORKS	Published	202341001687 & Filing Date: 09/01/2023 Publication Date:27/01/2023	D.SHEKAR GOUD	D.SHEKAR GOUD
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				Dr GURJOT SINGH	Dr GURJOT SINGH
				<b>RAMAKRISHNAN P</b>	<b>RAMAKRISHNAN P</b>
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				Dr RINKOO BHATIA	Dr RINKOO BHATIA
				Dr. AMAR KUMAR DEY	Dr. AMAR KUMAR DEY
				MOHD ASIF SHAH	MOHD ASIF SHAH
				Dr. VIVEK SINGH KUSHWAH	Dr. VIVEK SINGH KUSHWAH
				Dr.A.SASI KUMAR	Dr.A.SASI KUMAR

S. No.	Title of the Invention	Status of Patent	Patent Application Number & Filing / Publication /Granted Date	Name of the Applicant(s)	Name of the inventor(s)
5	METHOD AND SYSTEM FOR DETECTING GROWTH AND DISEASE CONDITIONS BASED ON VEGETATION INDICES OF PLANTS	Granted	202141028796 & Granted Date:22/12/2022	MEIVEL SADASIVAM DR. MAHESWARI SURESH BABU	MEIVEL SADASIVAM DR. MAHESWARI SURESH BABU
6	ONE DIMENSIONAL CNN BASED HIGH RISK MATERNAL AND FETAL MONITORING SYSTEM WITH IOT	Published	202241068297 & Filing Date: 28/11/2022 Publication Date: 23/12/2022	T JAYACHANDRAN S SIVARANJANI DR.R.JAYANTHI P.VINOTH KUMAR B.PITCIA KRISHNAN D.GOWTHAMI VS SURESH KUMAR R.SUDHAKAR S.THIRUVENKATASAMY S AMSAVENI P GOPI	T JAYACHANDRAN S SIVARANJANI DR.R.JAYANTHI P.VINOTH KUMAR B.PITCIA KRISHNAN D.GOWTHAMI VS SURESH KUMAR R.SUDHAKAR S.THIRUVENKATASAMY S AMSAVENI P GOPI
7	DRONE BASED WASTE DISPOSAL SYSTEM	Filed	202241067828 & Filing Date: 25/11/2022	M.KUMARASAMY COLLEGE OF ENGINEERING	MRS.MEIVEL
8	HONEY HARVESTING DRONE	Filed	202241067826 & Filing Date: 25/11/2022	M.KUMARASAMY COLLEGE OF ENGINEERING	MRS.MEIVEL
9	A SYSTEM FOR PROTECTING THE PERSONAL FILES	Filed	202241067852 & Filing Date: 25/11/2022	M.KUMARASAMY COLLEGE OF ENGINEERING	MRS.MEIVEL
10	AUTOMATIC FIRE SENSING AND EXTINGUISHING ROBOT	Granted	356802-001 & Publication Date: 16/01/2022 Granted Date: 05/01/2023	MR.JAI SHANKER DR.S.PALANIVEL RAJAN MR.A.SUBAN DR. PRASHANT SUNAGAR	MR.JAI SHANKER DR.S.PALANIVEL RAJAN MR.A.SUBAN DR. PRASHANT SUNAGAR
11	A PROGRAMMABLE TAG TESTER DEVICE	Granted	356803-001 & Granted Date:01/02/2023	DR CHIRANJIB GOSWAMI DR.S.PALANIVEL RAJAN MR.V.KARUPPUCHAMY MR. BHASKAR ROY	DR CHIRANJIB GOSWAMI DR.S.PALANIVEL RAJAN MR.V.KARUPPUCHAMY MR. BHASKAR ROY



S. No.	Title of the Invention	Status of Patent	Patent Application Number & Filing / Publication /Granted Date	Name of the Applicant(s)	Name of the inventor(s)
12	AN AUTONOMOUS SCRAP COLLECTING ROBOTIC DEVICE	Granted	357156-001 & Granted Date: 02/03/2023	ER.YOGENDRA KUMAR	ER.YOGENDRA KUMAR
				DR.S. PALANIVEL RAJAN	DR.S. PALANIVEL RAJAN
				DR.L.MALLIGA	DR.L.MALLIGA
				DR.RUPAM DAS	DR.RUPAM DAS
13	COMMUNICATION ANTENNA	Granted	328758-001 & Granted Date: 25/01/2023	DR.S. PALANIVEL RAJAN	DR.S. PALANIVEL RAJAN
				DR.C.VIVEK	DR.C.VIVEK
14	APPLE PICKING ROBOT	Granted	374449-001 & Granted Date: 20/01/2023	MS.S.SUBASELVI	MS.S.SUBASELVI
				DR.R.SARAVANAKUMAR	DR.R.SARAVANAKUMAR
				DR.M.SUNDAR PRAKASH BALAJI	DR.M.SUNDAR PRAKASH BALAJI
15	MICROSTRIP PATCH ANTENNA	Granted	374843-001 & Granted Date: 07/02/2023	M.KUMARASAMY COLLEGE OF ENGINEERING	DR.P.JEYAKUMAR
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					K. SACHIN ARAVINTH
					M.KARTHICK PRASATH
16	AGRICULTURE DRONE FOR SPRAYING NUTRIENTS	Granted	374847-001 & Granted Date: 25/01/2023	M.KUMARASAMY COLLEGE OF ENGINEERING	MEIVEL SADASIVAM
					THINESH KUMAR GOPAL
					VIKRAM NAGARAJAN
					SREEVARSHAN SEENIVASAGAN
17	NOVEL TECHNIQUES TO ENHANCE THE WIRELESS SENSOR NETWORK EFFICIENCY THROUGH COVERAGE AND ENERGY UTILISATION TECHNIQUES	Published	202331001035 & Filing Date: 05/01/2023 Publication Date: 20/01/2023	PRASANTH MISHRA	PRASANTH MISHRA
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S. No.	Title of the Invention	Status of Patent	Patent Application Number & Filing / Publication /Granted Date	Name of the Applicant(s)	Name of the inventor(s)
18	A SYSTEMATIC APPROACH FOR IOT & MACHINE LEARNING TECHNOLOGIES BASED ON SENSOR DATA FOR AIR QUALITY PREDICTION & MONITORING SYSTEM IN SUSTAINABLE SMART CITIES	Published	202311001728 & Filing Date: 09/01/2023 Publication Date: 20/01/2023	DR.KUMAR MANOJ	DR.KUMAR MANOJ
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				JYOTI KAUSHAL	JYOTI KAUSHAL
				DR.RAVISH SINGH RAJPUT	DR.RAVISH SINGH RAJPUT
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				DR.PRADEEP KUMAR	DR.PRADEEP KUMAR
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				SIKA K	SIKA K
DR.A.SASIKUMAR	DR.A.SASIKUMAR				
19	SMART TRAFFIC MANAGEMENT SYSTEM USING ARTIFICIAL INTELLIGENCE INTERNET OF THINGS(IOT) AND EMBEDDED WITH TECHNIQUES OF VIDEO PROCESSING	Published	202311000305 & Filing Date: 03/01/2023 Publication Date: 20/01/2023	DR.NIKIL SRIVASTAVA	DR.NIKIL SRIVASTAVA
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				DR.DHAMMANAND JAGADEO SHIRALE	DR.DHAMMANAND JAGADEO SHIRALE
				DEEPAK SINGH	DEEPAK SINGH
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				DR.A.SASIKUMAR	DR.A.SASIKUMAR
				AMOL D SONAWANE	AMOL D SONAWANE
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S. No.	Title of the Invention	Status of Patent	Patent Application Number & Filing / Publication /Granted Date	Name of the Applicant(s)	Name of the inventor(s)
20	IMPLEMENTATION OF GREEN INTERNET OF THINGS (IOT) FOR ECO-FRIENDLY AND SUSTAINABLE SMART CITIES	Published	202341000116 & Filing Date: 02/01/2023 Publication Date: 13/01/2023	DR.SAROJA RANI KESANAPALLI	DR.SAROJA RANI KESANAPALLI
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				DR.T.VENKATA NARAYANA RAO	DR.T.VENKATA NARAYANA RAO
				DR.VIJAY KUMAR SALVIA	DR.VIJAY KUMAR SALVIA
				<b>B.NEETHTHI AADITHIYA</b>	<b>B.NEETHTHI AADITHIYA</b>
				DR.PRASHANT MUNDEJA	DR.PRASHANT MUNDEJA
				DR.RAVINDRA D NALAWADE	DR.RAVINDRA D NALAWADE
				MOHDASIF SHAH	MOHDASIF SHAH
				DR.VADDI NAGA PADMA PRASUNA	DR.VADDI NAGA PADMA PRASUNA
				DR.R.MURUGESAN	DR.R.MURUGESAN
21	IOT BASED HEALTH MONITORING SYSTEM FOR AUTISM SPECTRUM DISORDER	Published	202341017941 & Filing Date: 16/03/2023 Publication Date: 31/03/2023	<b>ABIRAMI.T</b>	<b>ABIRAMI.T</b>
				VIJAYALAKSHMI.S	VIJAYALAKSHMI.S
				SHUBIKSHA.P	SHUBIKSHA.P
				SUBHIKSHA.B	SUBHIKSHA.B
22	WIDEBAND DUAL POLARIZED ANTENNA ARRAY FOR 5G MASSIVE SYSTEMS	Published	202341015362 Filed Date: 7/03/2023 Published Date: 17/03/2023	<b>Dr. P.JEYAKUMAR</b>	<b>Dr. P.JEYAKUMAR</b>
				SURIYA R	SURIYA R
				SUGUMAR S	SUGUMAR S
				YOGANATHAN M	YOGANATHAN M
				Dr. P. MUTHUCHIDAMBARANATHAN	Dr. P. MUTHUCHIDAMBARANATHAN
23	FIRE DETECTION AND ALERTING SYSTEM IN TRAIN USING GSM	Published	202341017564 & Filing Date: 15/03/2023 Publication Date: 31/03/2023	<b>RAJENDRAKUMAR.M.G</b>	<b>RAJENDRAKUMAR.M.G</b>
				SRIRAM.S	SRIRAM.S
				SURYAAS.A	SURYAAS.A
				YOGAPRAKASH.K	YOGAPRAKASH.K
24	URBAN SUBWAY FLOOD WATER MANAGEMENT SYSTEM	Published	202341017563 & Filing Date: 15/03/2023 Publication Date: 31/03/2023	<b>SHEIKDAVOOD K</b>	<b>SHEIKDAVOOD K</b>
				TAMILMATHI VM	TAMILMATHI VM
				THARANITHIRAN S	THARANITHIRAN S
				VARUN PRASAD T	VARUN PRASAD T

S. No.	Title of the Invention	Status of Patent	Patent Application Number & Filing / Publication /Granted Date	Name of the Applicant(s)	Name of the inventor(s)
25	HYDROGEN SULFIDE (H2S) GAS DETECTION SYSTEM USING SAW-MEMS SENSOR	Published	202341017562 & Filing Date: 15/03/2023 Publication Date: 31/03/2023	Dr.K.KARTHIKEYAN	Dr.K.KARTHIKEYAN
				SELVANAYAHLN	SELVANAYAHLN
				SNEHA.T	SNEHA.T
				SWATHIKA. A	SWATHIKA. A
				VARSHITHA.G	VARSHITHA.G
26	DESIGN OF SAFETYBED: A NEOTERIC TECHNOLOGY BASED OLDAGE PEOPLE FALL	Published	202341015769 & Filing Date: 9/03/2023 Publication Date: 17/03/2023	DR.A.KAVITHA	DR.A.KAVITHA
				S.SATHESHKUMAR	S.SATHESHKUMAR
				K.SURESH	K.SURESH
				T.SRIBHALAJI	T.SRIBHALAJI
27	IOT BASED SMART WASTE MANAGEMENT SYSTEM FOR SMART CITIES	Published	202341018320 & Filing Date:17/03/2023 Publication Date:31/03/23	K SUDHAKAR	K SUDHAKAR
				S DEEPIKA A DIVYA	S DEEPIKA A DIVYA
				P ELAVARASI	P ELAVARASI
28	IOT BASED ADVANCED SMART CART SHOPPING USING RF IDENTIFICATION WITH CUSTOMER ALERT NOTIFICATION	Published	202341018321 & Filing Date:17/03/2023 Publication Date:31/03/23	SENTAMILSELVI M	SENTAMILSELVI M
				DEEPIKA P	DEEPIKA P
				DHARNIHA V	DHARNIHA V
				DHARSANYA D	DHARSANYA D
29	SMART ACTIVATING CULTIVATION WITH RENEWABLE ENERGY BY USING IOT	Published	202341018323 & Filing Date:17/03/2023 Publication Date:31/03/23	RAMAKRISHNAN P	RAMAKRISHNAN P
				BOOMIJA M	BOOMIJA M
				DHANALAKSHMI P	DHANALAKSHMI P
				DIVYABHARATHI R	DIVYABHARATHI R
30	A DEEP NEURAL NETWORK BASED FISH FLOATING DETECTION AND AQUACULTURE MONITORING SYSTEM	Published	202341018324 & Filing Date:17/03/2023 Publication Date:31/03/23	Dr P JEYAKUMAR	Dr P JEYAKUMAR
				BOOBALAN A	BOOBALAN A
				DINAKAR G	DINAKAR G
				DILIPAN B	DILIPAN B
31	ENERGY HARVESTING WBANS USING MAC PROTOCOL	Published	2023410123253 & Filing Date:29/03/2023 Publication Date:07/04/23	Dr. C.NANDAGOPAL	Dr. C.NANDAGOPAL
				R.AAKASH	R.AAKASH
				V BEEBIN	V BEEBIN
				S DEEPAK	S DEEPAK

S. No.	Title of the Invention	Status of Patent	Patent Application Number & Filing / Publication /Granted Date	Name of the Applicant(s)	Name of the inventor(s)
32	SMART GARBAGE MONITORING SYSTEM	Published	202341019165 & Filing Date:21/03/2023 Publication Date:31/03/23	<b>KAARTHIIK K</b>	<b>KAARTHIIK K</b>
				KAMESH C	KAMESH C
				MANIVEL R	MANIVEL R
				MANIKANDAN P	MANIKANDAN P
				MOHAN P	MOHAN P
				<b>G SHANMUGAVADIVEL</b>	<b>G SHANMUGAVADIVEL</b>
				M KARTHICK	M KARTHICK
				B JEYA KRISHNAN	B JEYA KRISHNAN
33	LANDSLIDE MONITORING TECHNIQUES WITH IOT INTEGRATION	Published	202341017943 & Filing Date:16/03/2023 Publication Date:31/03/23	R MANOJ KUMAR	R MANOJ KUMAR
				<b>MG RAJENDRAKUMAR</b>	<b>MG RAJENDRAKUMAR</b>
				P JAYASWETHA	P JAYASWETHA
				V KAMALI	V KAMALI
34	ADVANCED SOALR BASED E VEHICLE WIRELESS CHARGING USING INTELLIGENCE	Published	202341019535 & Filing Date:21/03/2023 Publication Date:31/03/23	P LAKSHMIPRIYA	P LAKSHMIPRIYA
				<b>Dr.R.RAJESH KANNA</b>	<b>Dr.R.RAJESH KANNA</b>
				KARUPPANNAN RM	KARUPPANNAN RM
				JANAGAR S	JANAGAR S
35	A ULTRAWIDEBAND ANTENNA WITH OMNI-DIRECTIONAL RADIATION FOR WIMAX APPLICATIONS	Published	202341016742 & Filing Date:13/03/2023 Publication Date:31/03/23	GOWTHAMAN M	GOWTHAMAN M
				<b>Dr.A.MURUGAN</b>	<b>Dr.A.MURUGAN</b>
				NIRANJAN B	NIRANJAN B
				NITHISH KUMAR P	NITHISH KUMAR P
36	FLOATING POINT PIPELINED MAC DESIGN FOR SATELLITE APPLICATION	Published	202341017107 & Filing Date:14/03/2023 Publication Date:31/03/23	PARTHIBAN R	PARTHIBAN R
				<b>Dr.P.JEYAKUMAR</b>	<b>Dr.P.JEYAKUMAR</b>
				NAVEEN S	NAVEEN S
				RAGULAN R	RAGULAN R
37	PULSED LOW FREQUENCY THERAPY DEVICE	Published	202341017108 & Filing Date:14/03/2023 Publication Date:31/03/23	SANTHOSH S	SANTHOSH S

S. No.	Title of the Invention	Status of Patent	Patent Application Number & Filing / Publication /Granted Date	Name of the Applicant(s)	Name of the inventor(s)
38	DESIGN AND DEVELOPMENT OF AN IOT BASED SMART POULTRY FARM	Published	202341017109 & Filing Date:14/03/2023 Publication Date:31/03/23	L RAMESH	L RAMESH
				N NANDHINI	N NANDHINI
				B NARMADHA	B NARMADHA
				S RANJANI	S RANJANI
				T SARUMATHI	T SARUMATHI
39	A 2.4GHZ ENERGY EFFICIENT TRANSMITTER FOR WIRELESS MEDICAL APPLICATIONS	Published	202341017110 & Filing Date:14/03/2023 Publication Date:31/03/23	Dr.R.RAJESH KANNA	Dr.R.RAJESH KANNA
				RAGHUL V	RAGHUL V
				ROHITH K	ROHITH K
40	DEEP LEARNING BASED TECHNIQUE TO PREDICT THE IMPACT OF RESIDENTIAL ENERGY STORAGE SYSTEM MODELLING ON POWER SYSTEM	Published	202341017110 & Filing Date:15/01/2023 Publication Date:27/01/23	Dr. SOUMYA MISHRA	Dr. SOUMYA MISHRA
				REVANNATH BABANRAO KAKADE	REVANNATH BABANRAO KAKADE
				Dr. JAI PRAKASH NAVANI	Dr. JAI PRAKASH NAVANI
				SHAIKH SAMEER RAFIK	SHAIKH SAMEER RAFIK
				Dr NIRMALA B	Dr NIRMALA B
				KAVITHA S	KAVITHA S
				SIDDHARTH JAIN	SIDDHARTH JAIN
				Dr. AMIT CHAUHAN	Dr. AMIT CHAUHAN
				MOHD ESA	MOHD ESA
				Dr.A.SASI KUMAR	Dr.A.SASI KUMAR
				GOBENATH.A.P	GOBENATH.A.P
41	IMAGE REGISTRATION TECHNIQUES FOR ACCURATE DIAGNOSIS OF BREAST CANCER BY UTILISING RADIOLOGY	Published	2023410111803 & Filing Date:21/02/2023 Publication Date:17/03/23	DR SUMAN CHANDRA AEJMAL	DR SUMAN CHANDRA AEJMAL
				DR. G.HEMALATHA	DR. G.HEMALATHA
				DR.PRAVEEN KUMAR DASARI	DR.PRAVEEN KUMAR DASARI
				MRS.MEENAKSHI JAISWAL	MRS.MEENAKSHI JAISWAL
				MS.ANITA DEVI CHAUHAN	MS.ANITA DEVI CHAUHAN
				DR.CHANDRASEKARA PATIL	DR.CHANDRASEKARA PATIL
				USHASHREE R	USHASHREE R
				ABIRAMI T	ABIRAMI T
				NIDHI SAXENA	NIDHI SAXENA

S. No.	Title of the Invention	Status of Patent	Patent Application Number & Filing / Publication / Granted Date	Name of the Applicant(s)	Name of the Inventor(s)
42	DESIGN OF SMART HOME AUTOMATION SYSTEM ALONG WITH ENERGY EFFICIENCY AND INTERNET OF THINGS THROUGH WI-FI	Published	202341025010 & Filing Date:31/03/2023 Publication Date:21/04/23	MOHID ARIF SHAH	MOHID ARIF SHAH
				DR.M.NA VEEN KUMAR	DR.M.NA VEEN KUMAR
				PROF.ABHISHEK SHRIVASTAVA	PROF.ABHISHEK SHRIVASTAVA
				SAMPATHKUMAR BOINI	SAMPATHKUMAR BOINI
				DR.Y.N.VIJAYAKUMAR	DR.Y.N.VIJAYAKUMAR
				DR.SOUMITRA SUBODH PANDE	DR.SOUMITRA SUBODH PANDE
				SUMESH M	SUMESH M
				DR.DHARMENDRA KUMAR DUBEY	DR.DHARMENDRA KUMAR DUBEY
				DR.MANASI VANKATESH GHAMANDE	DR.MANASI VANKATESH GHAMANDE
				A SRIDEVI	A SRIDEVI
				DR. DEEPAK VERMA	DR. DEEPAK VERMA
M.SAMBATHKUMAR	M.SAMBATHKUMAR				
DR.SUMIT KUMAR GUPTA	DR.SUMIT KUMAR GUPTA				
RAKESH V	RAKESH V				
DEEPAK BANSAL	DEEPAK BANSAL				
DR.SURENDRA PRATAP SINGH	DR.SURENDRA PRATAP SINGH				
DR.S.PALANIVEL RAJAN	DR.S.PALANIVEL RAJAN				
DR.M.VENKATESH	DR.M.VENKATESH				
DR.P.CHIDAMBARAMI	DR.P.CHIDAMBARAMI				
43	COLOR GUIDED MATERIAL HANDLING ROBOTIC PLATFORM	Granted	357157-001 & Granted Date: 29/04/2023		

Filed: 3

Published: 31

Granted: 9

*[Handwritten Signature]*  
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S.No	Patent title	Application No.	Name of the Inventor(s)	Student Member	Patent status			Status	Country
					Filed Date	Published Date	Granted Date		
1	An artificial intelligence-based system in electrical machine condition monitoring and method thereof	202241062543	1. E. Muthu 2. T. Rajkumar 3. Abhishek Yadav 4. Dr. B. Suresh Babu 5. Dr. V. G. Umale 6. Mr. S. Dineshkumar 7. Dr. R. Azhagumurugan	-	2/11/2022	11.11.2022		Published	India
2	Maximum power point tracking for Photovoltaic system	202241067942	1. C. Kumar 2. S. Jaisiva 3. M. Lakshmanan	-	25.11.2022	02.12.2022		Published	India
3	Design and development of GSM based substation monitoring and control	202241067936	1. M. Lakshmanan 2. C. Kumar 3. S. Jaisiva	-	25.11.2022	02.12.2022		Published	India
4	Solar forecasting methods for renewable energy integration	202241067929	1. S. Jaisiva 2. M. Lakshmanan 3. C. Kumar	-	25.11.2022	02.12.2022		Published	India
5	Design and development of dual axis solar tracking system with weather sensor	202241072734 A	1. T. Alex Stanley Raja, 2. S. Balavignesh, 3. G. Subramaniam, 4. N. Nalini, 5. Dr. C. Kumar	-	15.12.2022	30.12.2022		Published	India
6	Design and development of power system voltage stability analysis and dynamic load modelling	202241072736 A	1. S. Balavignesh, 2. T. Alex Stanley Raja, 3. G. Subramaniam, 4. N. Nalini, 5. Dr. C. Kumar	-	16.12.2022	30.12.2022		Published	India
7	A system for smart air quality sensors to detect forest fires using the IoT	202241072738 A	1. G. Subramaniam, 2. S. Balavignesh, 3. T. Alex Stanley Raja, 4. N. Nalini, 5. Dr. C. Kumar	-	16.12.2022	30.12.2022		Published	India
8	A voltage stability measurement of power systems and its relation with load characteristics	202241072739 A	1) N. Nalini 2) G. Subramaniam 3) S. Balavignesh 4) T. Alex Stanley Raja 5) Dr. C. Kumar	-	16.12.2022	30.12.2022		Published	India
9	Battery Operated Scooter for Kids	375929-001	1. Dr. M. Chrispin Das, 2. Dr. S. Sathish Kumar 3. Dr. Mulugeta Tesema 4. Mr. Amadeep Singh Bhatia 5. Dr. John Philip Bhimavarapu 6. Dr. G. Kannan	-	22.12.22	25.01.2023	25.01.2023	Granted	India
10	An AI Based Improving the Efficiency of the Medical Service Consultation	202241067180	Dr. K. A. Ramesh Dr. T. Parasuraman Dr. D. Harigaran Dr. R. Ramakrishnan Chockalingam A.L. Dr. Hemlata S. Karthiyayini K. Janani	-	22.11.2022	23.12.2022		Published	India



11	AI Based Smart Agriculture System Using Embedded IOT	202241072729 A	Dr. M A Khadar Baba Dr.S.Nagarajan Dr. C. Vivekanandan Dr. Meenakshi Sharma Mr. M. Hariprabhu Mrs. R. Indhuja Mrs. Shunmuga Sankari M Mr. T. Kamalkumar	-	15/12/2022	30/12/2022		Published	India
12	Health Monitoring Device	374848-001	C.Vignesh, S.Banumathi	C.Vignesh	30/11/2022	01.02.2023	01.20.2023 Design Patent - Registered	Granted	India
13	An Adaptive fuzzy power controller based wind energy conversion system	202341005348	Mr. S. Radha Krishna Reddy, Dr. Vasanthakumar Natarajan, Dr. Ramesh Babu M, Dr. R. Karthikeyan, A. Udhaya Kumar, Dr. R. Senthil Kumar, Dr. R. Dinesh Kumar, Dr. Swagata Sarkar	-	27/1/2023	10/2/2023		Published	India
14	Edited Nearest Neighbor (ENN) and Condensed Nearest Neighbor (CNN) prototype selection algorithms applied to the KNN classifier in Medical Diagnosis problems	202331007245	1. Ashit Kumar Dutta 2. Dr. Kapil Aggarwal 3. Dr. N. Prakash 4. P. Maniraj 5. Nasser Ali Ajarallah 6. Shtwal Alsubal 7. Dr. Ahamed Basha Abdul Bari 8. Abd ullah Alqahtani 9. Adel Binbusayyis	-	4/2/2023	10/2/2023		Published	India
15	An Automatic Crop Seeding Robot	202341008478	R. Kamalesh, P. Dhamotharan, N. Mohanlal, Dr. S. Banumathi	R. Kamalesh, P. Dhamotharan, N. Mohanlal,	9/2/2023	17/02/2023		Published	India
16	Systematic Approaches To Identify The Impact Of Artificial Intelligence (AI) In The Growth Of Agriculture & Food Sector	202341008978	1. M Thiagarajan 2. R Ponnusamy 3. Dr. D. Ruby 4. Dr. Malini S 5. N. Selvam 6. Dr. S. Kannadhasan 7. Dr. J. Senthil Murugan 8. Dr. W T Chembian	-	11/2/2023	17/02/2023		Published	India
17	IoT-Based Miniature LPG Gas Meter	377870-001	Dr. P. Radhakrishnan Mr. Tushar Ashokkumar Champaneria Mr. Jothiprakash V M Mr. M. Hariprabhu	-	23/01/2023	-	Design Patent granted - 17/03/2023	Granted	India
18	AI Based Autonomous Cost Analysis Application for Smart Financial Management System	202341015563	1. Dr. R. Krishnamoorthy, 2. Dr. Devendra Kumar Yadav, 3. M. Amina Begum, 4. Dr. P. S. Suvetha, 5. Dr. M. Bhuvana, Dr. B. Neeraja, Dr. A. Ramkumar, Rajesh Kanna	-	9/3/2023	24/03/2023		Published	India
19	AI Based Smart Meter For Municipal Waste Water Treatment	202331025391 A	Dr. Sanjaya Kumar Sarangi. Mr. L. Vetrivendan, Dr. Gopal Behera, Dr. L. Vidhya, Dr. S. Vinodha, Dr. S.J. Pradeeba, Dr. P.S. Suvetha	-	4/4/2023	14/04/2023		Published	India

20	Novel Approach of Deep Learning Based Brain Tumor Detection	202311015904 A	1)DR DIVYA GOYAL 2)Dr. Vishwajeet Trivedi 3)Dr. Parimala 6 4)Dr. Richa Mahajan 5)Dr. Kanchi L Qhitha Lakshmi 6)Dr. ShaikBabu, 7)Ch. B. v. Durga 8)Miss Pratibha Chokhi 9)Mrs. Bharani · G · 10)Mohana Priya T	10/3/2023	23/6/2023		Published	India
21	System And Method For Renewable Ener	202341031911 A	1)Dr. Umavathi M 2)Dr. S. Prasath 3)Mr. Harish Babu L 4)Dr. Sivasakthi Balan K 5)Dr. R. Girja 6)Prof. Rohan Pradeep Shinde 7)Mrs. P.Sasirekha	4/5/2023	23/06/2023		Published	India
22	Voice based Product Recognition for Visually Impaired	202341031913 A	Dr. B.VIJAYA PRAKASH, Dr. S. RANGANATHAN, Mr. L. VETRIVENDAN, Mr. MOHAN S R, Dr. P. SURESH, Dr. B.SENTHIL KUMAR Mr. M.HARIPRABHU	4/5/2023	23/06/2023		Published	India



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Office of the Controller General of Patents, Designs & Trade Marks  
 Department of Industrial Policy & Promotion,  
 Ministry of Commerce & Industry,  
 Government of India

(<http://ipindia.nic.in/index.htm>)



(<http://ipindia.nic.in/index.htm>)

### Application Details

APPLICATION NUMBER	202241062543
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	02/11/2022
APPLICANT NAME	1 . E. Muthu 2 . T.Rajkumar 3 . Abhishek Yadav 4 . Dr.B.Suresh Babu 5 . Dr. V.G.Umale 6 . Mr.S.Dineshkumar 7 . Dr. R. Azhagumurugan
TITLE OF INVENTION	AN ARTIFICIAL INTELLIGENCE-BASED SYSTEM IN ELECTRICAL MACHINE CONDITION MONITORING AND METHOD THEREOF
FIELD OF INVENTION	ELECTRONICS
E-MAIL (As Per Record)	muthue@srmist.edu.in
ADDITIONAL-EMAIL (As Per Record)	
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	11/11/2022

### Application Status

<b>FORM 1</b> THE PATENTS ACT 1970 (39 of 1970) and THE PATENTS RULES, 2003 <b>APPLICATION FOR GRANT OF PATENT</b> (See section 7, 54 and 135 and sub-rule (1) of rule 20)				(FOR OFFICE USE ONLY)	
				Application No.	
				Filing date:	
				Amount of Fee paid:	
				CBR No:	
				Signature:	
<b>1. APPLICANT'S REFERENCE / IDENTIFICATION NO. (AS ALLOTTED BY OFFICE)</b>					
<b>2. TYPE OF APPLICATION [Please tick (✓) at the appropriate category]</b>					
Ordinary (✓)		Convention ( )		PCT-NP ( )	
Divisional ( )	Patent of Addition ( )	Divisional ( )	Patent of Addition ( )	Divisional ( )	Patent of Addition ( )
<b>3A. APPLICANT(S)</b>					
Name In Full		Nationality	Country of Residence	Address of the Applicant	
1. E. Muthu		Indian	India	Assistant Professor, Department of Mechanical Engineering, SRM Institute of Science & Technology, Kattankulathur, Chennai	
2. T.Rajkumar		Indian	India	Assistant Professor, Department of Information Technology, Dr.N.G.P Institute of Technology, Coimbatore, Tamilnadu -641048	
3. Abhishek Yadav		Indian	India	Assistant Professor, Department of Agriculture Engineering, Jawaharlal Institute of Technology, Borawan Khargone, MP	

4. Dr.B.Suresh Babu	Indian	India	Professor, Electrical and Electronics Engineering, Shri Vishnu Engineering College for Women, Vishnupur, Bhimavaram – 534202, West Godavari District, Andhra Pradesh, India	
5. Dr. V.G.Umale	Indian	India	Assistant Professor, Department of Electrical Engineering, Priyadarshini College of Engineering, Nagpur 440019, Maharashtra	
6. Mr.S.Dineshkumar	Indian	India	Assistant Professor, Department of Electrical and Electronics Engineering, M.Kumarasamy College of Engineering, Karur -639113	
7. Dr. R. Azhagumurugan	Indian	India	Professor & HoD, Department of Electrical and Electronics Engineering, Sri Sai Ram Engineering College, Chennai - 600044	
Natural Person (✓)	Other than Natural Person			
	Small Entity ( )	Startup ( )	Others ( )	
<b>4. INVENTOR(S) [Please tick (✓) at the appropriate category]</b>				
Are all the inventor(s) same as the applicant(s) named above?	Yes (✓)		No ( )	
<b>If “No”, furnish the details of the inventor(s)</b>				
Name in Full	Nationality	Country of Residence	Address of the Inventor	
Same as Applicant				
<b>5. TITLE OF THE INVENTION</b>				
" AN ARTIFICIAL INTELLIGENCE-BASED SYSTEM IN ELECTRICAL MACHINE CONDITION MONITORING AND METHOD THEREOF "				
<b>6. AUTHORISED REGISTERED PATENT AGENT(S)</b>		IN/PA No.		
		Name		
		Mobile No.		
<b>7. ADDRESS FOR SERVICE OF APPLICANT IN INDIA</b>		Name	E. Muthu	
		Postal Address	Assistant Professor, Department of Mechanical Engineering,	

				SRM Institute of Science & Technology, Kattankulathur, Chennai	
		Telephone No.			
		Mobile No.		9976612112	
		Fax No.			
		E-mail ID		muthue@srmist.edu.in	
<b>8. IN CASE OF APPLICATION CLAIMING PRIORITY OF APPLICATION FILED IN CONVENTION COUNTRY, PARTICULARS OF CONVENTION APPLICATION</b>					
Country	Application Number	Filing date	Name of the applicant	Title of the invention	IPC (as classified in the convention country)
<b>9. IN CASE OF PCT NATIONAL PHASE APPLICATION, PARTICULARS OF INTERNATIONAL APPLICATION FILED UNDER PATENT CO-OPERATION TREATY (PCT)</b>					
International application number			International filing date		
<b>10. IN CASE OF DIVISIONAL APPLICATION FILED UNDER SECTION 16, PARTICULARS OF ORIGINAL (FIRST) APPLICATION</b>					
Original (first) application No.			Date of filing of original (first) application		
<b>11. IN CASE OF PATENT OF ADDITION FILED UNDER SECTION 54, PARTICULARS OF MAIN APPLICATION OR PATENT</b>					
Main application/patent No.			Date of filing of main application		
<b>12. DECLARATIONS</b>					
<b>(i) Declaration by the inventor(s)</b>					
(In case the applicant is an assignee: the inventor(s) may sign herein below or the applicant may upload the assignment or enclose the assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period).					
I/We, the above named inventor(s) is/are the true & first inventor(s) for this Invention and declare that the applicant(s) herein is/are my/our assignee or legal representative.					
(a) Date 02/11/2022					
(b) Name			(c) Signature		
1. E. Muthu 2. T.Rajkumar					

- |  |  |
|--|--|
| 3. Abhishek Yadav<br>4. Dr.B.Suresh Babu<br>5. Dr. V.G.Umale<br>6. Mr.S.Dineshkumar<br>7. Dr. R. Azhagumurugan |  |
|--|--|

**~~(ii) Declaration by the applicant(s) in the convention country~~**

~~(In case the applicant in India is different than the applicant in the convention country: the applicant in the convention country may sign herein below or applicant in India may upload the assignment from the applicant in the convention country or enclose the said assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period)~~

~~I/We, the applicant(s) in the convention country declare that the applicant(s) herein is/are my/our assignee or legal representative.~~

~~(a) Date~~

~~(b) Signature(s)~~

~~(c) Name(s) of the signatory~~

**(iii) Declaration by the applicant(s)**

I/We the applicant(s) hereby declare(s) that: -

- € I am/ We are in possession of the above-mentioned invention.
- € The ~~provisional~~/complete specification relating to the invention is filed with this application.
- € ~~The invention as disclosed in the specification uses the biological material from India and the necessary permission from the competent authority shall be submitted by me/us before the grant of patent to me/us.~~
- € There is no lawful ground of objection(s) to the grant of the Patent to me/us.
- € I am/we are the true & first inventor(s).
- € I am/we are the assignee or legal representative of true & first inventor(s).
- € ~~The application or each of the applications, particulars of which are given in Paragraph 8, was the first application in convention country/countries in respect of my/our invention(s).~~
- € ~~I/We claim the priority from the above mentioned application(s) filed in convention country/countries and state that no application for protection in respect of the invention had been made in a convention country before that date by me/us or by any person from which I/We derive the title.~~

€ ~~My/our application in India is based on international application under Patent Cooperation Treaty (PCT) as mentioned in Paragraph-9.~~

€ ~~The application is divided out of my /our application particulars of which is given in Paragraph-10 and pray that this application may be treated as deemed to have been filed on DD/MM/YYYY under section 16 of the Act.~~

€ ~~The said invention is an improvement in or modification of the invention particulars of which are given in Paragraph-11.~~

**13. FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION**

(a) Form 2

Item	Details	Fee	Remarks
Complete/ Provisional specification) #	No. of pages: 16		
No. of Claim(s)	No. of claims: 08 No. of pages: 02		
Abstract	No. of pages: 01		
No. of Drawing(s)	No. of drawings: 02 No. of pages: 01		

# In case of a complete specification, if the applicant desires to adopt the drawings filed with his provisional specification as the drawings or part of the drawings for the complete specification under rule 13(4), the number of such pages filed with the provisional specification are required to be mentioned here.

(b) Complete specification (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).

(c) Sequence listing in electronic form

(d) Drawings (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).

(e) Priority document(s) or a request to retrieve the priority document(s) from DAS (Digital Access Service) if the applicant had already requested the office of first filing to make the priority document(s) available to DAS.

(f) Translation of priority document/Specification/International Search Report/International Preliminary Report on Patentability.

(g) Statement and Undertaking on Form 3

(h) Declaration of Inventorship on Form 5

(i) Power of Authority

(j) **Total fee ₹.....in Cash/ Banker's Cheque /Bank Draft bearing No.....**



**Date on ..... Bank.**

I/We hereby declare that to the best of my/our knowledge, information and belief the fact and matters slated herein are correct and I/We request that a patent may be granted to me/us for the said invention.

**Dated this 2<sup>nd</sup> day of November 2022**

Name: E. Muthu et. al.

To,  
The Controller of Patents  
The Patent Office, at Chennai

Note: -

- \* Repeat boxes in case of more than one entry.
- \* To be signed by the applicant(s) or by authorized registered patent agent otherwise where mentioned.
- \* Tick (/)/cross (x) whichever is applicable/not applicable in declaration in paragraph-12.
- \* Name of the inventor and applicant should be given in full, family name in the beginning.
- \* Strike out the portion which is/are not applicable.
- \* For fee: See First Schedule”;

(12) PATENT APPLICATION PUBLICATION

(21) Application No. 202241067942 A

(19) INDIA

(22) Date of filing of Application :25/11/2022

(43) Publication Date : 02/12/2022

(54) Title of the invention : MAXIMUM POWER POINT TRACKING FOR PHOTOVOLTAIC SYSTEMS

(51) International classification :H02J0003380000, G06Q0050060000, F03D0009250000, G06Q0030020000, H02S0020100000  
(86) International Application No :PCT//  
Filing Date :01/01/1900  
(87) International Publication No : NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

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2)S. Jaisiva

3)M. Lakshmanan

Name of Applicant : NA

Address of Applicant : NA

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(57) Abstract :

Renewable energy generation has experienced consistent growth in the last two decades, motivated by the concerns of climate change and high oil prices, and supported by renewable energy legislation and incentives, with a close to \$150 billion investment. Solar photovoltaic is one of the fastest growing energy technologies, with an average annual growth of about 40% in the past decade. Similarly high grow rate has been registered in the past few decades for the wind power industry as well, with an approximately 30% increase. Despite the technological advances and governmental incentives, the cost of energy produced by PV systems is still relatively high and cannot compete yet with traditional wholesale electricity prices. This motivates the research for creating not only improved solar panels but also efficient power converters which can extract close to 100% of the available power from the photovoltaic array.

No. of Pages : 15 No. of Claims : 4

(54) Title of the invention : DESIGN AND DEVELOPMENT OF GSM BASED SUBSTATION MONITORING AND CONTROL

(51) International classification :G06F0009300000, H04L0067120000, H02H0003093000, A61B0017320000, G06F0016245500

(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 :  
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**2)C. Kumar**  
**3)S. Jaisiva**  
 Name of Applicant : NA  
 Address of Applicant : NA  
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**3)S. Jaisiva**  
 Address of Applicant :Assistant Professor, Department of Electrical and Electronics Engineering, M.Kumarasamy College of Engineering, Karur, Tamilnadu India 639113 -----  
 -

(57) Abstract :  
 The purpose of this project is to acquire the remote electrical parameters like Voltage, Current and Frequency and send these real time values over GSM network using GSM Modem/phone along with temperature at power station. This project is also designed to protect the electrical circuitry by operating an Electromagnetic Relay. This Relay gets activated whenever the electrical parameters exceed the predefined values. The Relay can be used to operate a Circuit Breaker to switch off the main electrical supply. This project makes use of an onboard computer which is commonly termed as microcontroller. This onboard computer can efficiently communicate with the different sensors being used. The controller is provided with some internal memory to hold the code. This memory is used to dump some set of assembly instructions into the controller.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No. 202241067929 A

(19) INDIA

(22) Date of filing of Application : 25/11/2022

(43) Publication Date : 02/12/2022

(54) Title of the invention : SOLAR FORECASTING METHODS FOR RENEWABLE ENERGY INTEGRATION

(51) International classification : G06N0020000000, G06N0020200000, G06N0005000000, G01W0001100000, G06K0009620000

(86) International Application No Filing Date : PCT// : 01/01/1900

(87) International Publication No : NA

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

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

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Address of Applicant : Professor, Department of Electrical and Electronics Engineering, M.Kumarasamy College of Engineering, Karur, Tamilnadu India 639113 -----

(57) Abstract :

When it comes to large-scale renewable energy plants, the future of solar power forecasting is vital to their success. For reliable predictions of solar electricity generation, one must take into consideration changes in weather patterns over time. In this paper, a hybrid model that integrates machine learning and statistical approaches is suggested for predicting future solar energy generation. In order to improve the accuracy of the suggested model, an ensemble of machine learning models was used in this study. The results of the simulation show that the proposed method has reduced placement cost, when compared with existing methods. When comparing the performance of an ensemble model that integrates all of the combination strategies to standard individual models, the suggested ensemble model outperformed the conventional individual models. According to the findings, a hybrid model that made use of both machine learning and statistics outperformed a model that made sole use of machine learning in its performance.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No. 202241072734 A

(19) INDIA

(22) Date of filing of Application :15/12/2022

(43) Publication Date : 30/12/2022

(54) Title of the invention : DESIGN AND DEVELOPMENT OF DUAL AXIS SOLAR TRACKING SYSTEM WITH WEATHER SENSOR

(51) International classification :H02S0020320000, F24S0050200000, F24S0030000000, G01S0003786000, F24S0030452000

(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 :Professor, Department of Electrical and Electronics Engineering, M. Kumarasamy College of Engineering, Karur - 639113, Tamilnadu, India Karur -----

(57) Abstract :

Dual axis solar tracker can simultaneously track sun's radiation in both horizontal and vertical axis. They use the same principle as the mountings of astronomical telescopes. In order to achieve maximum efficiency, the device tracks seasonal variations and daily tilt. The work focuses on the design and fabrication of automatic dual axis solar tracker prototype using Arduino code based on microcontroller along with fundamental of solar panel parameter and its use. The device is able to simulate the sun's tracking of 12 months within few minutes thus, implementing automation mechanism in tracking system. The computer control plays important role in the solar cell design and development of dual axis solar tracker for the sun's position. The main goal of this paper is to maximize energy output to reduce panel temperature (cooling), to increase efficiency of the PV panel. Small-scale solar is developed through a complete hardware and software in order to function accurately.

No. of Pages : 24 No. of Claims : 5

(54) Title of the invention : DESIGN AND DEVELOPMENT OF POWER SYSTEM VOLTAGE STABILITY ANALYSIS AND DYNAMIC LOAD MODELLING

<p>(51) International classification :H02J0003000000, H02J0003140000, G06F0021530000, H02J0003160000, E02D0033000000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant :</p> <p><b>1)S. Balavignesh</b> Address of Applicant :Assistant Professor, Department of Electrical and Electronics Engineering, Bannari Amman Institute of Technology, Sathyamangalam – 638401, Tamilnadu, India Sathyamangalam -----</p> <p><b>2)T. Alex Stanley Raja</b></p> <p><b>3)G. Subramaniam</b></p> <p><b>4)N. Nalini</b></p> <p><b>5)C. Kumar</b></p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor :</p> <p><b>1)S. Balavignesh</b> Address of Applicant :Assistant Professor, Department of Electrical and Electronics Engineering, Bannari Amman Institute of Technology, Sathyamangalam – 638401, Tamilnadu, India Sathyamangalam -----</p> <p><b>2)T. Alex Stanley Raja</b> Address of Applicant :Assistant Professor, Department of Electrical and Electronics Engineering, Bannari Amman Institute of Technology, Sathyamangalam – 638401, Tamilnadu, India Sathyamangalam -----</p> <p><b>3)G. Subramaniam</b> Address of Applicant :Assistant Professor, Department of Electrical and Electronics Engineering, <b>M. Kumarasamy College of Engineering, Karur – 639113, Tamilnadu, India Karur</b> -----</p> <p><b>4)N. Nalini</b> Address of Applicant :Assistant Professor, Department of Electrical and Electronics Engineering, <b>M. Kumarasamy College of Engineering, Karur – 639113, Tamilnadu, India Karur</b> -----</p> <p><b>5)C. Kumar</b> Address of Applicant :Professor, Department of Electrical and Electronics Engineering, <b>M. Kumarasamy College of Engineering, Karur - 639113, Tamilnadu, India Karur</b> -----</p>
---	--

(57) Abstract :

Under normal operating conditions, the power system is operated such that acceptable steady voltages are maintained throughout the system buses. However, during disturbances, system voltage deviates from the rated values. A stable system restores its voltage to a stable equilibrium value. However, in an unstable system, the voltage cannot be restored to acceptable steady value, and the system voltage falls progressively. This will force the system into a cascading outage, leading to voltage collapse. It was reported that several blackouts throughout the world were caused due to voltage collapse, which caused huge financial losses and badly impacted social life. As the load models make a significant impact on the voltage stability phenomenon, power system loads are to be modeled such that they closely represent the real system loads. Dynamic load models were used as better load models than static load models for voltage stability study.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No. 202241072738 A

(19) INDIA

(22) Date of filing of Application :16/12/2022

(43) Publication Date : 30/12/2022

(54) Title of the invention : A SYSTEM FOR SMART AIR QUALITY SENSORS TO DETECT FOREST FIRES USING THE IOT

(51) International classification :F24F0110700000, A62C0003020000, A61K0036730000, H04W0004380000, B01D0053620000

(86) International Application No :NA  
Filing Date :NA

(87) International Publication No : NA

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

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

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(57) Abstract :

Internet of Things (IoT) is a vision towards Future Internet where things are provided with enough intelligence to interconnects devices which may be machines, sensors or everyday objects that independently exchanges data between device-to-device and device-to-server either directly or over the internet without the human intervention. Implement IoT to monitoring atmospheric CO2 rate using MG811 carbon dioxide sensor and early detection of forest fires using temperature and humidity sensor with Raspberry pi. Carbon dioxide, which is an important constituent of environment is causing global warming and air pollution on the earth's surface. To save our earth, monitoring, controlling and preventing these changes is a big challenge. In terms of a long range control of Co2 emission at their source is more desirable and effective method to protect our earth. This system aims to collect massive amount of data for detecting and controlling the pollution caused by the emission of CO2 and store the data in secure server for effective analysis.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No. **202241072739 A**

(19) INDIA

(22) Date of filing of Application :16/12/2022

(43) Publication Date : 30/12/2022

(54) Title of the invention : A VOLTAGE STABILITY MEASUREMENT OF POWER SYSTEMS AND ITS RELATION WITH LOAD CHARACTERISTICS

<p>(51) International classification :H02J0003380000, H02J0003000000, H02J0013000000, H01M0010052500, H02J0003180000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant :</p> <p>1)<b>N. Nalini</b> Address of Applicant :Assistant Professor,, Department of Electrical and Electronics Engineering, <b>M.Kumarasamy College of Engineering, Karur – 639113, Tamilnadu, India Karur</b> -----</p> <p>2)<b>G. Subramaniam</b></p> <p>3)<b>S. Balavignesh</b></p> <p>4)<b>T. Alex Stanley Raja</b></p> <p>5)<b>C. Kumar</b></p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor :</p> <p>1)<b>N. Nalini</b> Address of Applicant :Assistant Professor,, Department of Electrical and Electronics Engineering, M.Kumarasamy College of Engineering, Karur – 639113, Tamilnadu, India Karur -----</p> <p>2)<b>G. Subramaniam</b> Address of Applicant :Assistant Professor, Department of Electrical and Electronics Engineering, M.Kumarasamy College of Engineering, Karur – 639113, Tamilnadu, India Karur -----</p> <p>3)<b>S. Balavignesh</b> Address of Applicant :Assistant Professor, Department of Electrical and Electronics Engineering, Bannari Amman Institute of Technology, Sathyamangalam – 638401, Tamilnadu, India Sathyamangalam -----</p> <p>4)<b>T. Alex Stanley Raja</b> Address of Applicant :Assistant Professor, Department of Electrical and Electronics Engineering, Bannari Amman Institute of Technology, Sathyamangalam – 638401, Tamilnadu, India Sathyamangalam -----</p> <p>5)<b>C. Kumar</b> Address of Applicant :Professor, Department of Electrical and Electronics Engineering, M.Kumarasamy College of Engineering, Karur – 639113, Tamilnadu, India Karur -----</p>
---	---

(57) Abstract :

Load characteristics have substantial influence on the voltage stability of power systems. The self-restorative characteristic and stalling of induction motor loads can deteriorate the voltage stability, so it is necessary to develop accurate and efficient dynamic analysis methods for voltage stability analysis of systems with induction motor loads. In this paper, a set of methods based on holomorphic embedding is proposed, which is able to solve steady states and dynamics of a power system with induction motors. Voltage stability covers a wide range of phenomena in power systems. In this chapter, voltage stability problems of distributed generators (DGs) are briefly described. Then, a new voltage-stability-analysis method for DGs connected to a weak power system is explained. An example of analysis is shown. The method uses active and reactive power information of power transmission lines in accordance with the voltage stability. Two proposed stability criteria are explained.

No. of Pages : 21 No. of Claims : 5





ORIGINAL

मूल/No : 127764



भारत सरकार  
GOVERNMENT OF INDIA  
पेटेंट कार्यालय  
THE PATENT OFFICE

डिजाइन के पंजीकरण का प्रमाणपत्र  
CERTIFICATE OF REGISTRATION OF DESIGN

डिजाइन सं. / Design No. : 375929-001  
तारीख / Date : 22/12/2022  
पारस्परिकता तारीख / Reciprocity Date\* :  
देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **BATTERY OPERATED SCOOTER FOR KIDS** से संबंधित है, का पंजीकरण, श्रेणी 12-11 में 1.Dr. M. Chrispin Das 2. Dr. S. Sathish Kumar 3.Dr. Mulugeta Tesema 4.Mr. Amadeep Singh Bhatia 5.Dr. John Philip Bhimavarapu 6.Dr. G. Kannan के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class 12-11 in respect of the application of such design to **BATTERY OPERATED SCOOTER FOR KIDS** in the name of 1.Dr. M. Chrispin Das 2. Dr. S. Sathish Kumar 3.Dr. Mulugeta Tesema 4.Mr. Amadeep Singh Bhatia 5.Dr. John Philip Bhimavarapu 6.Dr. G. Kannan.

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

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

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GEOGRAPHICAL INDICATIONS

निर्गमन की तारीख/Date of Issue : 25/01/2023

  
महानियंत्रक पेटेंट डिजाइन और व्यापार चिह्न  
Controller General of Patents, Designs and Trade Marks

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

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



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Government of India

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(<http://ipindia.nic.in/index.htm>)

### Application Details

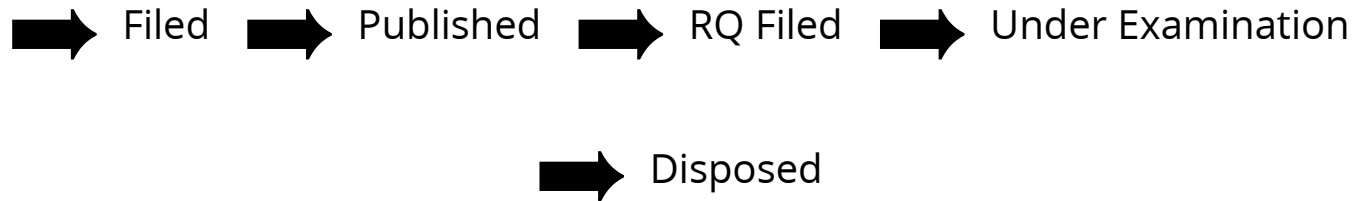
APPLICATION NUMBER	202241067180
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	22/11/2022
APPLICANT NAME	1 . Dr. K. A. Ramesh 2 . Dr. T. Parasuraman 3 . Dr. D. Harigaran 4 . Dr.R.Ramakrishnan 5 . Chockalingam AL 6 . Dr. Hemlata 7 . S. Karthiyayini 8 . K.Janani
TITLE OF INVENTION	An AI Based Improving the Efficiency of the Medical Service Consultation
FIELD OF INVENTION	BIO-MEDICAL ENGINEERING
E-MAIL (As Per Record)	mail2patentipr@gmail.com
ADDITIONAL-EMAIL (As Per Record)	mail2patentipr@gmail.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	23/12/2022

### Application Status

APPLICATION STATUS

## Awaiting Request for Examination

[View Documents](#)



In case of any discrepancy in status, kindly contact [ipo-helpdesk@nic.in](mailto:ipo-helpdesk@nic.in)

<b>FORM 1</b> THE PATENTS ACT 1970 (39 of 1970) and THE PATENTS RULES, 2003 <b>APPLICATION FOR GRANT OF PATENT</b> (See section 7, 54 and 135 and sub-rule (1) of rule 20)				(FOR OFFICE USE ONLY)	
				Application No.	
				Filing date:	
				Amount of Fee paid:	
				CBR No:	
				Signature:	
<b>1. APPLICANT'S REFERENCE / IDENTIFICATION NO. (AS ALLOTTED BY OFFICE)</b>					
<b>2. TYPE OF APPLICATION [Please tick (✓) at the appropriate category]</b>					
Ordinary (✓)		Convention ( )		PCT-NP ( )	
Divisional ( )	Patent of Addition ( )	Divisional ( )	Patent of Addition ( )	Divisional ( )	Patent of Addition ( )
<b>3A. APPLICANT(S)</b>					
Name In Full		Nationality	Country of Residence	Address of the Applicant	
1. Dr. K. A. Ramesh		Indian	India	Assistant Director of Physical Education, Anna University, Tiruchirappalli.	
2. Dr. T. Parasuraman		Indian	India	Assistant Professor, School of Physical Education & Sports Sciences, Hindustan Institute of Technology & Science, Chennai.	
3. Dr. D. Harigaran		Indian	India	Assistant Professor, School of Physical Education & Sports Sciences, Hindustan Institute of Technology & Science, Chennai.	
4. Dr.R.Ramakrishnan		Indian	India	Assistant Professor, School of Physical Education & Sports Sciences,	

			Hindustan Institute of Technology & Science, Chennai.
5. Chockalingam AL	Indian	India	Assistant Professor / EEE, M.Kumarasamy College of Engineering, Thalavapalayam, Karur-639113.
6. Dr. Hemlata	Indian	India	Assistant Professor, Computer Science and Engineering, Central University of Haryana, Mahendergarh.
7. S. Karthiyayini	Indian	India	Assitant Professor / IT, Mohamed Sathak Engineering College, Kilakarai- 623 806, Ramnad Dist.
8. K.Janani	Indian	India	Assistant Professor / EEE, Dr.N.G.P Institute of Technology, Kalapatti Road, Coimbatore – 641048.
Natural Person (✓)	Other than Natural Person		
	Small Entity ( )	Startup ( )	Others ( )
<b>4. INVENTOR(S) [Please tick (✓) at the appropriate category]</b>			
Are all the inventor(s) same as the applicant(s) named above?	Yes (✓)		No ( )
<b>If “No”, furnish the details of the inventor(s)</b>			
Name in Full	Nationality	Country of Residence	Address of the Inventor
Same as Applicant			
<b>5. TITLE OF THE INVENTION</b>			
“An AI Based Improving the Efficiency of the Medical Service Consultation”			
<b>6. AUTHORISED REGISTERED PATENT AGENT(S)</b>	IN/PA No.		
	Name		
	Mobile No.		
<b>7. ADDRESS FOR SERVICE OF APPLICANT IN INDIA</b>	Name	Dr. K. A. Ramesh	
	Postal Address	Assistant Director of Physical Education, Anna University, Tiruchirappalli.	
	Telephone No.		
	Mobile No.	9442547353	

		Fax No.			
		E-mail ID		mail2patentipr@gmail.com	
<b>8. IN CASE OF APPLICATION CLAIMING PRIORITY OF APPLICATION FILED IN CONVENTION COUNTRY, PARTICULARS OF CONVENTION APPLICATION</b>					
Country	Application Number	Filing date	Name of the applicant	Title of the invention	IPC (as classified in the convention country)
<b>9. IN CASE OF PCT NATIONAL PHASE APPLICATION, PARTICULARS OF INTERNATIONAL APPLICATION FILED UNDER PATENT CO-OPERATION TREATY (PCT)</b>					
International application number			International filing date		
<b>10. IN CASE OF DIVISIONAL APPLICATION FILED UNDER SECTION 16, PARTICULARS OF ORIGINAL (FIRST) APPLICATION</b>					
Original (first) application No.			Date of filing of original (first) application		
<b>11. IN CASE OF PATENT OF ADDITION FILED UNDER SECTION 54, PARTICULARS OF MAIN APPLICATION OR PATENT</b>					
Main application/patent No.			Date of filing of main application		
<b>12. DECLARATIONS</b>					
<b>(i) Declaration by the inventor(s)</b>					
(In case the applicant is an assignee: the inventor(s) may sign herein below or the applicant may upload the assignment or enclose the assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period).					
I/We, the above named inventor(s) is/are the true & first inventor(s) for this Invention and declare that the applicant(s) herein is/are my/our assignee or legal representative.					
(a) Date 21/11/2022					
<b>(b) Name</b>			<b>(c) Signature</b>		
1. Dr. K. A. Ramesh					
2. Dr. T. Parasuraman					
3. Dr. D. Harigaran					
4. Dr. R. Ramakrishnan					
5. Chockalingam AL					
6. Dr. Hemlata					
7. S. Karthiyayini					

8. K.Janani

**(ii) Declaration by the applicant(s) in the convention country**

~~(In case the applicant in India is different than the applicant in the convention country: the applicant in the convention country may sign herein below or applicant in India may upload the assignment from the applicant in the convention country or enclose the said assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period)~~

~~I/We, the applicant(s) in the convention country declare that the applicant(s) herein is/are my/our assignee or legal representative.~~

~~(a) Date~~

~~(b) Signature(s)~~

~~(c) Name(s) of the signatory~~

**(iii) Declaration by the applicant(s)**

~~I/We the applicant(s) hereby declare(s) that: -~~

- ~~€ I am/ We are in possession of the above-mentioned invention.~~
- ~~€ The provisional/complete specification relating to the invention is filed with this application.~~
- ~~€ The invention as disclosed in the specification uses the biological material from India and the necessary permission from the competent authority shall be submitted by me/us before the grant of patent to me/us.~~
- ~~€ There is no lawful ground of objection(s) to the grant of the Patent to me/us.~~
- ~~€ I am/we are the true & first inventor(s).~~
- ~~€ I am/we are the assignee or legal representative of true & first inventor(s).~~
- ~~€ The application or each of the applications, particulars of which are given in Paragraph-8, was the first application in convention country/countries in respect of my/our invention(s).~~
- ~~€ I/We claim the priority from the above mentioned application(s) filed in convention country/countries and state that no application for protection in respect of the invention had been made in a convention country before that date by me/us or by any person from which I/We derive the title.~~
- ~~€ My/our application in India is based on international application under Patent Cooperation Treaty (PCT) as mentioned in Paragraph-9.~~
- ~~€ The application is divided out of my /our application particulars of which is given in Paragraph-10 and pray that this application may be treated as deemed to have been filed on DD/MM/YYYY under section 16 of the Act.~~
- ~~€ The said invention is an improvement in or modification of the invention~~

particulars of which are given in Paragraph-11.

**13. FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION**

(a) Form 2

Item	Details	Fee	Remarks
Complete/ Provisional specification) #	No. of pages: 20		
No. of Claim(s)	No. of claims: 03 No. of pages: 01		
Abstract	No. of pages: 01		
No. of Drawing(s)	No. of drawings: 01 No. of pages: 01		

# In case of a complete specification, if the applicant desires to adopt the drawings filed with his provisional specification as the drawings or part of the drawings for the complete specification under rule 13(4), the number of such pages filed with the provisional specification are required to be mentioned here.

(b) Complete specification (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).

(c) Sequence listing in electronic form

(d) Drawings (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).

(e) Priority document(s) or a request to retrieve the priority document(s) from DAS (Digital Access Service) if the applicant had already requested the office of first filing to make the priority document(s) available to DAS.

(f) Translation of priority document/Specification/International Search Report/International Preliminary Report on Patentability.

(g) Statement and Undertaking on Form 3

(h) Declaration of Inventorship on Form 5

(i) Power of Authority

(j) **Total fee ₹.....in Cash/ Banker's Cheque /Bank Draft bearing No.....  
Date on ..... Bank.**

I/We hereby declare that to the best of my/our knowledge, information and belief the fact and matters slated herein are correct and I/We request that a patent may be granted to me/us for the said invention.

**Dated this 21<sup>st</sup> day of November 2022**



**Signature:**

*J. R. Ramesh*

Name: Dr. K. A. Ramesh et. al.

To,

The Controller of Patents

The Patent Office, at Chennai

Note: -

- \* Repeat boxes in case of more than one entry.
- \* To be signed by the applicant(s) or by authorized registered patent agent otherwise where mentioned.
- \* Tick (/) / cross (x) whichever is applicable / not applicable in declaration in paragraph-12.
- \* Name of the inventor and applicant should be given in full, family name in the beginning.
- \* Strike out the portion which is / are not applicable.
- \* For fee: See First Schedule”;

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :15/12/2022

(21) Application No. 202241072729 A

(43) Publication Date : 30/12/2022

(54) Title of the invention : AI Based Smart Agriculture System Using Embedded IOT.

(51) International classification :H01M0050502000, C23C0016440000, C12M0001000000, G01N0033000000, G06Q0030060000  
(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 :

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3)Dr.C. Vivekanandan

4)Dr. Meenakshi Sharma

5)Mr.M.Hariprabhu

6)Mrs.R.Indhuja

7)Mrs.Shunmuga Sankari M

8)Mr.T.Kamalkumar

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

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Address of Applicant :Associate Professor/ Electrical & Electronics Engineering, TJS Engineering College, Tjs Nagar, Peruvoyal, Gummidipoondi. -----

8)Mr.T.Kamalkumar

Address of Applicant :Assistant Professor / Electrical & Electronics Engineering, TJS Engineering College, Tjs Nagar, Peruvoyal, Gummidipoondi. -----

(57) Abstract :

An agricultural method includes the steps of providing a chamber with positive air pressure to prevent outside contaminants from entering the chamber; growing crops in a plurality of cells within the chamber, with each cell having multi-grow benches or levels, and each cell further having connectors to vertical hoists for vertical movements within the chamber; maintaining pre-set temperatures, humidity levels, carbon dioxide levels, watering levels, and lighting levels to achieve predetermined plant growth; and using motorized transport to move crops from one cell to another within the chamber.

No. of Pages : 22 No. of Claims : 5



ORIGINAL

मूल/No : 128198



भारत सरकार  
GOVERNMENT OF INDIA  
पेटेंट कार्यालय  
THE PATENT OFFICE

डिजाइन के पंजीकरण का प्रमाणपत्र  
CERTIFICATE OF REGISTRATION OF DESIGN

डिजाइन सं. / Design No. : 374848-001  
तारीख / Date : 30/11/2022  
पारस्परिकता तारीख / Reciprocity Date\* :  
देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **HEALTH MONITORING DEVICE** से संबंधित है, का पंजीकरण, श्रेणी **24-02** में 1.M Kumarasamy College Of Engineering 2. Vignesh C 3.Dr S Banumathi के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

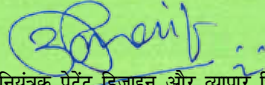
Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class **24-02** in respect of the application of such design to **HEALTH MONITORING DEVICE** in the name of 1.M Kumarasamy College Of Engineering 2. Vignesh C 3.Dr S Banumathi.

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

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

INTELLECTUAL  
PROPERTY INDIA  
PATENTS | DESIGNS | TRADE MARKS  
GEOGRAPHICAL INDICATIONS

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

  
महानियंत्रक पेटेंट डिजाइन और व्यापार चिह्न  
Controller General of Patents, Designs and Trade Marks

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

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

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :27/01/2023

(21) Application No. 202341005348 A

(43) Publication Date : 10/02/2023

(54) Title of the invention : An Adaptive Fuzzy Power Controller Based Wind Energy Conversion System

(51) International classification :F03D0009250000, F03D0015000000, H02P0101150000, F03D0007020000, B60W0010060000  
(86) International Application No Filing Date :PCT// :01/01/1900  
(87) International Publication No : NA  
(61) Patent of Addition to Application Number Filing Date :NA :NA  
(62) Divisional to Application Number Filing Date :NA :NA

(71)Name of Applicant :

1)Mr. S. Radha Krishna Reddy

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2)Dr. Vasanthakumar Natarajan

3)Dr. Ramesh Babu M

4)Dr.R.Karthikeyan

5)A.Udhaya Kumar

6)Dr.R.Senthil Kumar

7)Dr.R.Dinesh Kumar

8)Dr.Swagata Sarkar

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

1)Mr. S. Radha Krishna Reddy

Address of Applicant :Associate Professor / EEE, Holy Mary Institute of Technology and Science, Medchal, Hyderabad -----

2)Dr. Vasanthakumar Natarajan

Address of Applicant :Assistant Professor / EEE, RVS Padhmavathy College of Engineering and Technology, Tiruvallur District -----

3)Dr. Ramesh Babu M

Address of Applicant :Professor / EEE, St. Joseph's College of Engineering, OMR, Chennai, 600119 -----

4)Dr.R.Karthikeyan

Address of Applicant :Lecturer / Electrical & Electronics Engineering, Alagappa Government Polytechnic College, Karaikudi-3 -----

5)A.Udhaya Kumar

Address of Applicant :Assistant Professor / EEE, M.Kumarasamy College of Engineering, Karur -----

6)Dr.R.Senthil Kumar

Address of Applicant :Asst. Professor / EEE, K.S.R College of Engineering, Tiruchengode - 637215, Namakkal (D.t) -----

7)Dr.R.Dinesh Kumar

Address of Applicant :Associate Professor / ECE, Peri Institute of Technology, Chennai -----

8)Dr.Swagata Sarkar

Address of Applicant :Professor / Artificial intelligence and Data Science, Sri Sairam Engineering College, Sai Leo Nagar, West Tambaram, Chennai 44 -----

(57) Abstract :

A gearbox, a generator, an AC to DC power converter, a DC link, and a DC to AC power converter are the components that make up a power conversion system for wind energy. Additionally, the DC link comprises at least one ultra capacitor module that is linked in parallel. An unwanted frequency of a wind energy power conversion system gearbox can be obtained by performing the following steps: determining an input torque value on the input shaft of the gearbox as a function of time; determining a frequency of the input torque value; and adjusting a torque on the output shaft of the gearbox based on the unwanted frequency. This can be done as part of a method for reducing stress on a wind turbine gearbox.

No. of Pages : 17 No. of Claims : 3



Office of the Controller General of Patents, Designs & Trade Marks  
Department of Industrial Policy & Promotion,  
Ministry of Commerce & Industry,  
Government of India

(<http://ipindia.nic.in/index.htm>)



(<http://ipindia.nic.in/index.htm>)

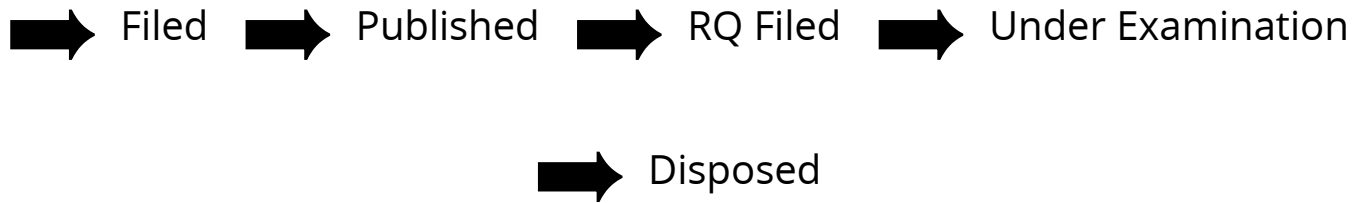
### Application Details

APPLICATION NUMBER	<b>202331007245</b>
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	04/02/2023
APPLICANT NAME	1 . Ashit Kumar Dutta 2 . Dr. Kapil Aggarwal 3 . Dr.N.Prakash 4 . <b>P.Maniraj</b> 5 . Nasser Ali Aljarallah 6 . Shtwai Alsubai 7 . Dr. Ahamed Basha Abdul Bari 8 . Abdullah Alqahtani 9 . Adel Binbusayyis
TITLE OF INVENTION	Edited nearest neighbor (ENN) and condensed nearest neighbor (CNN) prototype selection algorithms applied to the KNN classifier in medical diagnosis problems
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	esdiyeminfotech@gmail.com
ADDITIONAL-EMAIL (As Per Record)	esdiyeminfotech@gmail.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	10/02/2023

### Application Status

APPLICATION STATUS

## Awaiting Request for Examination

[View Documents](#)

In case of any discrepancy in status, kindly contact [ipo-helpdesk@nic.in](mailto:ipo-helpdesk@nic.in)

<b>FORM 1</b> THE PATENTS ACT 1970 (39 of 1970) and THE PATENTS RULES, 2003 <b>APPLICATION FOR GRANT OF PATENT</b> (See section 7, 54 and 135 and sub-rule (1) of rule 20)				(FOR OFFICE USE ONLY)	
				Application No.	
				Filing date:	
				Amount of Fee paid:	
				CBR No:	
				Signature:	
<b>1. APPLICANT'S REFERENCE / IDENTIFICATION NO. (AS ALLOTTED BY OFFICE)</b>					
<b>2. TYPE OF APPLICATION [Please tick (✓) at the appropriate category]</b>					
Ordinary (✓)		Convention ( )		PCT-NP ( )	
Divisional ( )	Patent of Addition ( )	Divisional ( )	Patent of Addition ( )	Divisional ( )	Patent of Addition ( )
<b>3A. APPLICANT(S)</b>					
Name In Full		Nationality	Country of Residence	Address of the Applicant	
1. Ashit Kumar Dutta		Indian	Saudi Arabia	A-145, Sector-07, Rourkela, Pin-769003, Distt. Sundergarh, Odisha. Department of Computer Science and Information Systems, College of Applied Sciences, Al Maarefa University, Ad Diriyah, Riyadh 13713, Saudi Arabia	
2. Dr. Kapil Aggarwal		Indian	India	Koneru Lakshmaiah Education Foundation (Deemed to be University), Department of Computer Science & Engineering, Vaddeswaram, District Guntur, Andhra Pradesh, India - 522302	

3. Dr.N.Prakash	Indian	India	Assistant Professor, Department of EEE, Kumaraguru College of Technology, Saravanampatti, Coimbatore - 641035
4. P.Maniraj	Indian	India	Assistant Professor, Department of Electrical and Electronics Engineering, M.Kumarasamy College of Engineering, Thalavapalayam, Karur, Tamilnadu, India, Pin Code: 639113
5. Nasser Ali Aljarallah	Indian	Saudi Arabia	A-145, Sector-07, Rourkela, Pin- 769003, Distt. Sundergarh, Odisha. Al Maarefa University, Ad Diriyah, Riyadh, 13713, Kingdom of Saudi Arabia
6. Shtwai Alsubai	Indian	Saudi Arabia	A-145, Sector-07, Rourkela, Pin- 769003, Distt. Sundergarh, Odisha. Department of Computer Science, College of Computer Engineering and Sciences in Al-Kharj, Prince Sattam bin Abdulaziz University, P.O. Box 151, Al-Kharj 11942, Saudi Arabia
7. Dr. Ahamed Basha Abdul Bari	Indian	India	Professor of Physiology, Chettinad Hospital and Research Institute, Chettinad Academy of Research and Education, Rajiv Gandhi Salai, OMR, Kelambakkam, Chennai, Tamil Nadu - 603103
8. Abdullah Alqahtani	Indian	Saudi Arabia	A-145, Sector-07, Rourkela, Pin- 769003, Distt. Sundergarh, Odisha. Software Engineering Department, College of Computer Engineering and Sciences, Prince Sattam bin Abdulaziz University, P.O. Box 151, Al-Kharj 11942, KSA
9. Adel Binbusayyis	Indian	Saudi Arabia	A-145, Sector-07, Rourkela, Pin- 769003, Distt. Sundergarh, Odisha. College of Computer Engineering and Sciences, Prince Sattam bin Abdulaziz



			University, Al Kharj, Saudi Arabia		
Natural Person (✓)	Other than Natural Person				
	Small Entity ( )		Startup ( )	Others ( )	
<b>4. INVENTOR(S) [Please tick (✓) at the appropriate category]</b>					
Are all the inventor(s) same as the applicant(s) named above?	Yes (✓)			No ( )	
<b>If "No", furnish the details of the inventor(s)</b>					
Name in Full	Nationality	Country of Residence	Address of the Inventor		
Same as Applicant					
<b>5. TITLE OF THE INVENTION</b>					
"Edited nearest neighbor (ENN) and condensed nearest neighbor (CNN) prototype selection algorithms applied to the KNN classifier in medical diagnosis problems"					
<b>6. AUTHORISED REGISTERED PATENT AGENT(S)</b>		IN/PA No.			
		Name			
		Mobile No.			
<b>7. ADDRESS FOR SERVICE OF APPLICANT IN INDIA</b>		Name		Ashit Kumar Dutta	
		Postal Address		A-145, Sector-07, Rourkela, Pin-769003, Distt. Sundergarh, Odisha.	
		Telephone No.			
		Mobile No.		7010418249	
		Fax No.			
		E-mail ID		esdiyeminfotech@gmail.com	
<b>8. IN CASE OF APPLICATION CLAIMING PRIORITY OF APPLICATION FILED IN CONVENTION COUNTRY, PARTICULARS OF CONVENTION APPLICATION</b>					
Country	Application Number	Filing date	Name of the applicant	Title of the invention	IPC (as classified in the convention country)
<b>9. IN CASE OF PCT NATIONAL PHASE APPLICATION, PARTICULARS OF INTERNATIONAL APPLICATION FILED UNDER PATENT CO-OPERATION TREATY (PCT)</b>					
International application number			International filing date		

**10. IN CASE OF DIVISIONAL APPLICATION FILED UNDER SECTION 16,  
PARTICULARS OF  
ORIGINAL (FIRST) APPLICATION**

Original (first) application No.	Date of filing of original (first) application
----------------------------------	--

**11. IN CASE OF PATENT OF ADDITION FILED UNDER SECTION 54,  
PARTICULARS OF MAIN  
APPLICATION OR PATENT**

Main application/patent No.	Date of filing of main application
-----------------------------	------------------------------------


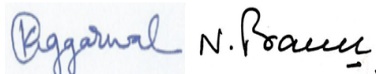







**12. DECLARATIONS**

**(i) Declaration by the inventor(s)**

(In case the applicant is an assignee: the inventor(s) may sign herein below or the applicant may upload the assignment or enclose the assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period).

I/We, the above named inventor(s) is/are the true & first inventor(s) for this Invention and declare that the applicant(s) herein is/are my/our assignee or legal representative.

(a) Date 04/02/2023

(b) Name	(c) Signature
1. Ashit Kumar Dutta	
2. Dr. Kapil Aggarwal	
3. Dr.N.Prakash	
4. P.Maniraj	
5. Nasser Ali Aljarallah	
6. Shtwai Alsubai	
7. Dr. Ahamed Basha Abdul Bari	
8. Abdullah Alqahatani	
9. Adel Binbusayyis	

**(ii) Declaration by the applicant(s) in the convention country**

(In case the applicant in India is different than the applicant in the convention country: the applicant in the convention country may sign herein below or applicant in India may upload the assignment from the applicant in the convention country or enclose the said assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period)

I/We, the applicant(s) in the convention country declare that the applicant(s) herein is/are my/our assignee or legal representative.

(a) Date

~~(b) Signature(s)~~  
~~(c) Name(s) of the signatory~~

**(iii) Declaration by the applicant(s)**

I/We the applicant(s) hereby declare(s) that: -

- € I am/ We are in possession of the above-mentioned invention.
- € The ~~provisional~~/complete specification relating to the invention is filed with this application.
- € ~~The invention as disclosed in the specification uses the biological material from India and the necessary permission from the competent authority shall be submitted by me/us before the grant of patent to me/us.~~
- € There is no lawful ground of objection(s) to the grant of the Patent to me/us.
- € I am/we are the true & first inventor(s).
- € ~~I am/we are the assignee or legal representative of true & first inventor(s).~~
- € ~~The application or each of the applications, particulars of which are given in Paragraph-8, was the first application in convention country/countries in respect of my/our invention(s).~~
- € ~~I/We claim the priority from the above mentioned application(s) filed in convention country/countries and state that no application for protection in respect of the invention had been made in a convention country before that date by me/us or by any person from which I/We derive the title.~~
- € ~~My/our application in India is based on international application under Patent Cooperation Treaty (PCT) as mentioned in Paragraph-9.~~
- € ~~The application is divided out of my /our application particulars of which is given in Paragraph-10 and pray that this application may be treated as deemed to have been filed on DD/MM/YYYY under section 16 of the Act.~~
- € ~~The said invention is an improvement in or modification of the invention particulars of which are given in Paragraph-11.~~

**13. FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION**

(a) Form 2

Item	Details	Fee	Remarks
Complete/ Provisional specification) #	No. of pages: 21		
No. of Claim(s)	No. of claims: 04 No. of pages: 01		
Abstract	No. of pages: 01		
No. of Drawing(s)	No. of drawings: 04 No. of pages: 03		

# In case of a complete specification, if the applicant desires to adopt the drawings filed with his provisional specification as the drawings or part of the drawings for the complete specification under rule 13(4), the number of such pages filed with the provisional specification are required to be mentioned here.

- (b) Complete specification (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).
- (c) Sequence listing in electronic form
- (d) Drawings (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).
- (e) Priority document(s) or a request to retrieve the priority document(s) from DAS (Digital Access Service) if the applicant had already requested the office of first filing to make the priority document(s) available to DAS.
- (f) Translation of priority document/Specification/International Search Report/International Preliminary Report on Patentability.
- (g) Statement and Undertaking on Form 3
- (h) Declaration of Inventorship on Form 5
- (i) Power of Authority
- (j) **Total fee ₹.....in Cash/ Banker's Cheque /Bank Draft bearing No.....  
Date on ..... Bank.**

I/We hereby declare that to the best of my/our knowledge, information and belief the fact and matters stated herein are correct and I/We request that a patent may be granted to me/us for the said invention.

**Dated this 4<sup>th</sup> day of February 2023**



**Signature:**

Name: Ashit Kumar Dutta et. al.

To,  
The Controller of Patents  
The Patent Office, at Kolkata

Note: -

- \* Repeat boxes in case of more than one entry.
- \* To be signed by the applicant(s) or by authorized registered patent agent otherwise where mentioned.
- \* Tick (/) /cross (x) whichever is applicable/not applicable in declaration in paragraph-12.
- \* Name of the inventor and applicant should be given in full, family name in the beginning.



Office of the Controller General of Patents, Designs & Trade Marks  
 Department of Industrial Policy & Promotion,  
 Ministry of Commerce & Industry,  
 Government of India

सत्यमेव जयते

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(<http://ipindia.nic.in/index.htm>)

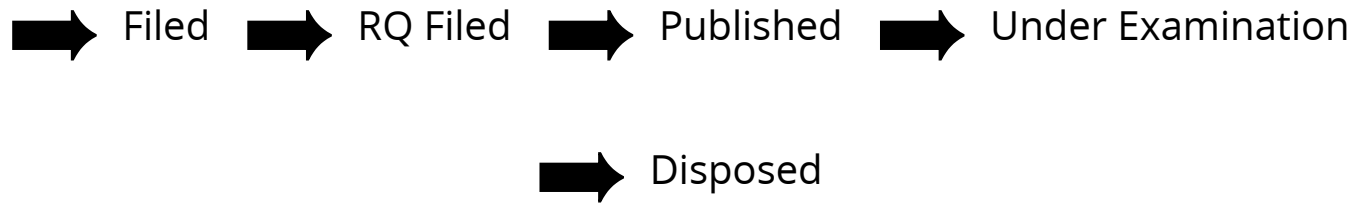
#### Application Details

APPLICATION NUMBER	<b>202341008478</b>
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	09/02/2023
APPLICANT NAME	<b>M.KUMARASAMY COLLEGE OF ENGINEERING</b>
TITLE OF INVENTION	AN AUTOMATIC CROP SEEDING ROBOT
FIELD OF INVENTION	MECHANICAL ENGINEERING
E-MAIL (As Per Record)	albertkrce@gmail.com
ADDITIONAL-EMAIL (As Per Record)	
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	09/02/2023
PUBLICATION DATE (U/S 11A)	17/02/2023

#### Application Status

APPLICATION STATUS	<b>Application referred u/s 12 for examination.</b>
--------------------	---

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(54) Title of the invention : SYSTEMATIC APPROACHES TO IDENTIFY THE IMPACT OF ARTIFICIAL INTELLIGENCE (AI) IN THE GROWTH OF AGRICULTURE & FOOD SECTOR

<p>(51) International classification :G06N0003080000, G06N0020000000, G06Q0050020000, G06N0007000000, H04N0019172000</p> <p>(86) International Application No :PCT// Filing Date :01/01/1900</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant :  <b>1)M Thiyagarajan</b>  Address of Applicant :Assistant Professor Computer Science &amp; Engineering AMET University, 135, ECR Road, Kanathur, Chennai, Tamilnadu - 603112 -----  <b>2)R Ponnusamy</b>  <b>3)Dr.D.Ruby</b>  <b>4)Dr Malini S</b>  <b>5)N.Selvam</b>  <b>6)Dr.S.Kannadhasan</b>  <b>7)Dr.J.Senthil Murugan</b>  <b>8)Dr. W T Chembian</b>  Name of Applicant : NA  Address of Applicant : NA  (72)Name of Inventor :  <b>1)M Thiyagarajan</b>  Address of Applicant :Assistant Professor Computer Science &amp; Engineering AMET University, 135, ECR Road, Kanathur, Chennai, Tamilnadu - 603112 -----  <b>2)R Ponnusamy</b>  Address of Applicant :Assistant Professor/Programmer Department of Computer and Information Science Annamalai University, Chidambaram,Cuddalore, Tamilnadu. -----  <b>3)Dr.D.Ruby</b>  Address of Applicant :Associate Professor Computer Science &amp; Applications Periyar Maniammai Institute of Science &amp; Technology, Periyar Nagar, Vallam, Thanjavur, Tamilnadu - 613 403 -----  <b>4)Dr Malini S</b>  Address of Applicant :MBA, Anna University Chennai, Tamilnadu -----  <b>5)N.Selvam</b>  Address of Applicant :Assistant Professor / Department of EEE <b>M.Kumarasamy College of Engineering, Karur, Tamilnadu -639113.</b> -----  <b>6)Dr.S.Kannadhasan</b>  Address of Applicant :Assistant Professor / ECE Study World College of Engineering Palathurai, Madukkarai, Coimbatore, Tamilnadu - 641105 -----  <b>7)Dr.J.Senthil Murugan</b>  Address of Applicant :Associate Professor / CSE, Vel Tech High Tech Dr. Rangarajan Dr.Sakunthala Engineering College, Avadi, Chennai, Tamilnadu. -----  <b>8)Dr. W T Chembian</b>  Address of Applicant :Associate Professor, Department of Computer Science &amp; Engineering, Vel Tech High Tech Dr.Rangarajan Dr.Sakunthala Engineering College (Autonomous), 60, Avadi – Vel Tech Road Vel Nagar Avadi, Chennai, Tamilnadu -600062 -----</p>
--	--

(57) Abstract :  
SYSTEMATIC APPROACHES TO IDENTIFY THE IMPACT OF ARTIFICIAL INTELLIGENCE (AI) IN THE GROWTH OF AGRICULTURE & FOOD SECTOR A systematic approaches to identify the impact of artificial intelligence (AI) in the growth of agriculture and food sector. The system comprises an information backbone connecting the event transactional database structure and the application programs with layered protocols and services, receive information that identifies a planting date value; identify a time frame based on the imagery data and determine that the time frame satisfies a threshold based on the planting date value, training an artificial intelligence (AI) model based on the transformed data, validating and retraining the artificial intelligence (AI) model, identify a commodity based on comparing the first size and the second size, determine an expected quantity value of the commodity based on the information identifying the quantity of seeds planted in the emergence area, ranking results based on the matching the user data with the artificial intelligence (AI) model and applying the expected weather conditions, the crop-specific information, and facility metadata representing actual and/or realized performance characteristics of a grain drying facility using at least one of fuel-based drying or forced-air mechanical drying of harvested grain.

No. of Pages : 15 No. of Claims : 1



ORIGINAL

मूल/No : 130956



भारत सरकार  
GOVERNMENT OF INDIA  
पेटेंट कार्यालय  
THE PATENT OFFICE

डिजाइन के पंजीकरण का प्रमाणपत्र  
CERTIFICATE OF REGISTRATION OF DESIGN

डिजाइन सं. / Design No. : 377870-001  
तारीख / Date : 23/01/2023  
पारस्परिकता तारीख / Reciprocity Date\* :  
देश / Country :

प्रमाणित किया जाता है कि संलग्न प्रति में वर्णित डिजाइन जो **IOT-BASED MINIATURE LPG GAS METER** से संबंधित है, का पंजीकरण, श्रेणी **10-04** में 1.Dr. P. Radhakrishnan 2. Mr. Tushar Ashokkumar Champaneria 3.Mr. Jothiprakash V M 4.Mr. M. Hariprabhu के नाम में उपर्युक्त संख्या और तारीख में कर लिया गया है।

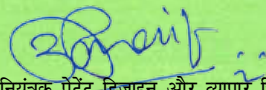
Certified that the design of which a copy is annexed hereto has been registered as of the number and date given above in class **10-04** in respect of the application of such design to **IOT-BASED MINIATURE LPG GAS METER** in the name of 1.Dr. P. Radhakrishnan 2. Mr. Tushar Ashokkumar Champaneria 3.Mr. Jothiprakash V M 4.Mr. M. Hariprabhu.

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

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

INTELLECTUAL  
PROPERTY INDIA  
PATENTS | DESIGNS | TRADE MARKS  
GEOGRAPHICAL INDICATIONS

निर्गमन की तारीख/Date of Issue : 15/03/2023

  
महानियंत्रक पेटेंट डिजाइन और व्यापार चिह्न  
Controller General of Patents, Designs and Trade Marks

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

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



(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :09/03/2023

(21) Application No. **202341015563 A**

(43) Publication Date : 24/03/2023

(54) Title of the invention : AI BASED AUTONOMOUS COST ANALYSIS APPLICATION FOR SMART FINANCIAL MANAGEMENT SYSTEM

(51) International classification :G06Q 100600, G06Q 203400, G06Q 400000, G06Q 400600, G07F 071000  
(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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**2)Dr. DEVENDRA KUMAR YADAV**  
**3)M. AMINA BEGUM**  
**4)Dr. P. S. SUVETHA**  
**5)Dr. M. BHUVANA**  
**6)Dr. B. NEERAJA**  
**7)Dr. A. RAMKUMAR**  
**8)RAJESH KANNA R**

Name of Applicant : NA  
Address of Applicant : NA

(72)Name of Inventor :

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**3)M. AMINA BEGUM**  
Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF ECE, OXFORD COLLEGE OF ENGINEERING, VENMANI, POLUR, TAMILNADU, INDIA. -----

**4)Dr. P. S. SUVETHA**  
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Address of Applicant :ASSISTANT PROFESSOR & RESEARCH SUPERVISOR, SCHOOL OF MANAGEMENT STUDIES, DEPARTMENT OF BUSINESS ADMINISTRATION, VELS INSTITUTE OF SCIENCE, TECHNOLOGY & ADVANCED STUDIES, VELAN NAGAR, P. V. VAITHIYALINGAM ROAD, PALLAVARAM, CHENNAI, TAMILNADU, INDIA. -----  
**8)RAJESH KANNA R**  
Address of Applicant :DEPARTMENT OF COMPUTER SCIENCE, CHRIST (DEEMED TO BE UNIVERSITY), BANGALORE, KARNATAKA, INDIA. -----

(57) Abstract :

In the current era, technology has involved in various fields providing innovative solutions especially artificial intelligence, provides AI based autonomous systems for taking smart decisions. This invention focuses on system of financial management which conventionally relies on human resource. The proposed system involves artificial intelligence with programming software to promote autonomous system of financial management in an intelligent way. Human involved in prediction of financial management problems to take any decision are very slow. We focus on cost analysis application where we are able to attain intelligent system for financial management with intellectualization, rationalization and specialization. This system provides several advantages and provides guarantee for an autonomous system especially for cost analysis application. This work provides constructive solution based on the programming nature of artificial intelligence for financial management.

No. of Pages : 9 No. of Claims : 6



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 Department of Industrial Policy & Promotion,  
 Ministry of Commerce & Industry,  
 Government of India

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### Application Details

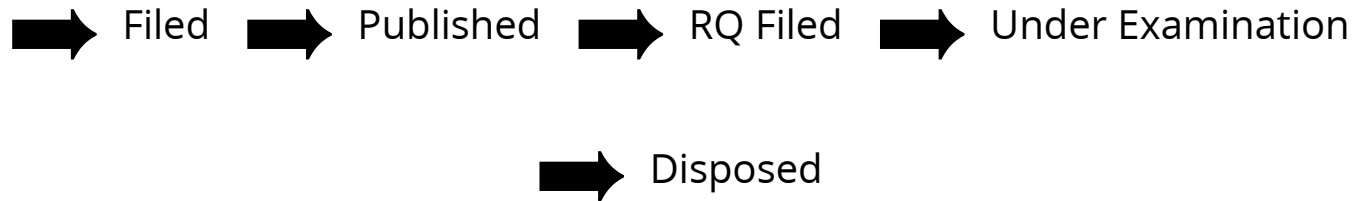
APPLICATION NUMBER	202331025391
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	04/04/2023
APPLICANT NAME	1 . Dr. SANJAYA KUMAR SARANGI 2 . Mr. L. VETRIVENDAN 3 . Dr. GOPAL BEHERA 4 . Dr. L. VIDHYA 5 . Dr. S. VINODHA 6 . Dr. S.J. PRADEEBA 7 . Dr. P.S. SUVETHA
TITLE OF INVENTION	AI BASED SMART METER FOR MUNICIPAL WASTE WATER TREATMENT
FIELD OF INVENTION	CHEMICAL
E-MAIL (As Per Record)	senanipindia@gmail.com
ADDITIONAL-EMAIL (As Per Record)	admin@senanip.com
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (U/S 11A)	14/04/2023

### Application Status

APPLICATION STATUS

## Awaiting Request for Examination

[View Documents](#)




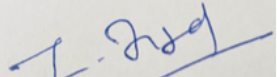


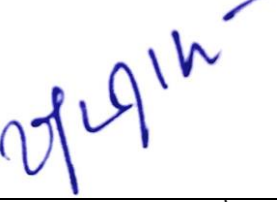

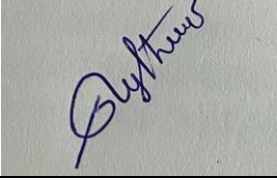
In case of any discrepancy in status, kindly contact [ipo-helpdesk@nic.in](mailto:ipo-helpdesk@nic.in)

"FORM 1 THE PATENTS ACT 1970 (39 of 1970) and THE PATENTS RULES, 2003 APPLICATION FOR GRANT OF PATENT (See section 7, 54 and 135 and sub-rule (1) of rule 20)					(FOR OFFICE USE ONLY)	
Application No.						
Filing date:						
Amount of Fee paid:						
CBR No:						
Signature:						
1. APPLICANT'S REFERENCE / IDENTIFICATION NO. (AS ALLOTTED BY OFFICE)						
2. TYPE OF APPLICATION [Please tick ( ) at the appropriate category]						
Ordinary (✓)		Convention (x)		PCT-NP (x)		
Divisional ( )	Patent of Addition ( )	Division ( )	Patent of addition ( )	Division ( )	Patent of Addition ( )	
3A. APPLICANT(S)						
Name in Full		Nationality	Country of Residence	Address of the Inventor		
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				Street		
				City	BHUBANESWAR	
				State	ODISHA	
				Country	INDIA	
				Pin code	751004	
Mr. L. VETRIVENDAN		INDIAN	INDIA	House No.	SCHOOL OF COMPUTING SCIENCE AND ENGINEERING PLOT NO. 2, YAMUNA EXPY, OPPOSITE BUDDHA INTERNATIONAL CIRCUIT, SECTOR 17A	
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				City	GREATER NOIDA	
				State	UTTAR PRADESH	
				Country	INDIA	
				Pin code	203201	
Dr. GOPAL BEHERA		INDIAN	INDIA	House No.	ASSISTANT PROFESSOR DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING GOVERNMENT COLLEGE OF ENGINEERING	
				Street		
				City	KALAHANDI, BHAWANIPATNA	
				State	ODISHA	
				Country	INDIA.	
				Pin code	766003	
Dr. L. VIDHYA		INDIAN	INDIA	House No.	ASSOCIATE PROFESSOR DEPARTMENT OF SCIENCE AND HUMANITIES. HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY.	
				Street		
				City	VALLEY CAMPUS, POLLACHI MAIN ROAD	
				State	TAMILNADU	
				Country	INDIA.	
				Pin code	641032	

Dr. S. VINODHA	INDIAN	INDIA	House No.	PROFESSOR DEPARTMENT OF CIVIL ENGINEERING JAYARAJ ANNAPACKIAM CSI COLLEGE OF ENGINEERING		
			Street			
			City	NAZARETH, THOOTHUKUDI		
			State	TAMILNADU		
			Country	INDIA		
			Pin code	628617		
Dr. S.J. PRADEEBA	INDIAN	INDIA	House No.	ASSOCIATE PROFESSOR DEPARTMENT OF CHEMISTRY HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY,		
			Street			
			City	VALLEY CAMPUS, POLLACHI MAIN ROAD		
			State	TAMILNADU		
			Country	INDIA.		
			Pin code	641032		
Dr. P.S. SUVETHA	INDIAN	INDIA	House No.	ASSISTANT PROFESSOR DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING M.KUMARASAMY COLLEGE OF ENGINEERING		
			Street			
			City	KARUR		
			State	TAMILNADU,		
			Country	INDIA.		
			Pin code	639113		
Natural Person (✓)		Other than natural Person				
		Small Entity (x)	Startup (x)	Others (x)		
4. INVENTOR(S) [Please tick at the appropriate category]						
Are all the inventor(s) same as the applicant(s) named above?		Yes (✓)				
If "No", furnish the details of the inventor(s)						
<b>5. TITLE OF THE INVENTION</b>						
<b>AI BASED SMART METER FOR MUNICIPAL WASTE WATER TREATMENT</b>						
6. AUTHORISED REGISTERED PATENT AGENT		IN/PA No.	- NA-			
		Name				
7. ADDRESS FOR SERVICE OF APPLICANT IN INDIA		Name	Dr. SANJAYA KUMAR SARANGI			
		Postal Address	ACADEMIC COORDINATOR AND ADJUNCT PROFESSOR DEPARTMENT OF COMPUTER SCIENCE UTKAL UNIVERSITY BHUBANESWAR ODISHA 751004, INDIA			
		Telephone No.				
		Mobile No.	+91-9861048742			
		Fax No.				
		E-mail ID	sanjaya.res.cs@utkaluniversity.ac.in			
8. IN CASE OF APPLICATION CLAIMING PRIORITY OF APPLICATION FILED IN CONVENTION COUNTRY, PARTICULARS OF CONVENTION APPLICATION						
Country	Application Number	Filing date	Name of the applicant	Title of the invention	IPC (as classified in the convention country)	
NA	NA	NA	NA	NA	NA	
9. IN CASE OF PCT NATIONAL PHASE APPLICATION, PARTICULARS OF INTERNATIONAL APPLICATION FILED UNDER PATENT CO-OPERATION TREATY (PCT)						
International application number		International filing date				
NA		NA				
10. IN CASE OF DIVISIONAL APPLICATION FILED UNDER SECTION 16, PARTICULARS OF ORIGINAL (FIRST) APPLICATION						
Original (first) application No.		Date of filing of original (first) application				
NA		NA				
11. IN CASE OF PATENT OF ADDITION FILED UNDER SECTION 54, PARTICULARS OF MAIN APPLICATION OR PATENT : NA						
Main application/patent No. : NA		Date of filing of main application : NA				
12. DECLARATIONS						
(i) Declaration by the inventor(s) (In case the applicant is an assignee: the inventor(s) may sign herein below or the applicant may upload the assignment						

or enclose the assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period).

We, the above named inventor(s) are the true & first inventor(s) for this Invention and declare that the applicant(s) herein are our assignee or legal representative.

NAME	SIGNATURE	DATE
Dr. SANJAYA KUMAR SARANGI		20/03/2023
Mr. L. VETRIVENDAN		20/03/2023
Dr. GOPAL BEHERA		20/03/2023
Dr. L. VIDHYA		20/03/2023
Dr. S. VINODHA		20/03/2023
Dr. S.J. PRADEEBA		20/03/2023
Dr. P.S. SUVETHA		20/03/2023

(ii) Declaration by the applicant(s) in the convention country  
(In case the applicant in India is different than the applicant in the convention country: the applicant in the convention country may sign herein below or applicant in India may upload the assignment from the applicant in the convention country or enclose the said assignment with this application for patent or send the assignment by post/electronic transmission duly authenticated within the prescribed period)

We, the applicant(s) in the convention country declare that the applicant(s) herein are our assignee or legal representative.

(a) Date

(b) Signature(s) -----NA-----

(c) Name(s) of the signatory

(iii) Declaration by the applicant(s)

- We the applicant(s) hereby declare(s) that: -
- We are in possession of the above-mentioned invention.
- The provisional/complete specification relating to the invention is filed with this application.
- The invention as disclosed in the specification uses the biological material from India and the necessary permission from the competent authority shall be submitted by me/us before the grant of patent to me/us.
- There is no lawful ground of objection(s) to the grant of the Patent to me/us.
- We are the true & first inventor(s).
- We are the assignee or legal representative of true & first inventor(s).
- The application or each of the applications, particulars of which are given in Paragraph 8, was the first

- application in convention country/countries in respect of our invention(s)-
- We claim the priority from the above mentioned application(s) filed in convention country/countries and state that no application for protection in respect of the invention had been made in a convention country before that date by me/us or by any person from which I/We derive the title.
  - Our application in India is based on international application under Patent Cooperation Treaty (PCT) as mentioned in Paragraph-9.
  - The application is divided out of my /our application particulars of which is given in Paragraph-10 and pray that this application may be treated as deemed to have been filed on DD/MM/YYYY under section 16 of the Act.
  - The said invention is an improvement in or modification of the invention particulars of which are given in Paragraph-11.

13. FOLLOWING ARE THE ATTACHMENTS WITH THE APPLICATION (a) Form 2

Item	Details	Fee	Remarks
Complete specification	No. of pages :15		
No. of Claim(s)	No. of claims : 06 and No. of pages :01		
Abstract	No. of pages :01		
No. of Drawing(s)	No. of drawings :-- and No. of pages:--		

# In case of a complete specification, if the applicant desires to adopt the drawings filed with his provisional specification as the drawings or part of the drawings for the complete specification under rule 13(4), the number of such pages filed with the provisional specification are required to be mentioned here.

(b) Complete specification (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).

(c) Sequence listing in electronic form

(d) Drawings (in conformation with the international application)/as amended before the International Preliminary Examination Authority (IPEA), as applicable (2 copies).

(e) Priority document(s) or a request to retrieve the priority document(s) from DAS (Digital Access Service) if the applicant had already requested the office of first filing to make the priority document(s) available to DAS.

(f) Translation of priority document/Specification/International Search Report/International Preliminary Report on Patentability.

(g) Statement and Undertaking on Form 3

(h) Declaration of Inventorship on Form 5

(i) .....

Total fee

We hereby declare that to the best of our knowledge, information and belief the fact and matters slated herein are correct and We request that a patent may be granted to us for the said invention.

NAME	SIGNATURE	DATE
Dr. SANJAYA KUMAR SARANGI		20/03/2023
Mr. L. VETRIVENDAN		20/03/2023
Dr. GOPAL BEHERA		20/03/2023
Dr. L. VIDHYA		20/03/2023
Dr. S. VINODHA		20/03/2023

Dr. S.J. PRADEEBA	<i>S J Pradeeba</i>	20/03/2023
Dr. P.S. SUVETHA	<i>P S Suvetha</i>	20/03/2023

To  
The Controller of patents, The Patent office at MUMBAI.



(54) Title of the invention : NOVEL APPROACH OF DEEP LEARNING BASED BRAIN TUMOR DETECTION

<p>(51) International classification :A61P 350000, C12Q 016886, G06N 030400, G06N 030800, G06T 070000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : <b>1)DR DIVYA GOYAL</b> Address of Applicant :DEPARTMENT OF PHYSIOTHERAPY GD GOENKA UNIVERSITY, GURUGRAM HARYANA, INDIA -----</p> <p><b>2)Dr. Vishwajeet Trivedi</b> <b>3)Dr. Parimala :6</b> <b>4)Dr. Richa Mahajan</b> <b>5)Dr Kanchi LQhitha .Lakshmi</b> <b>6)Dr. ShaikBabu, ·</b> <b>7)Ch. B. v. Durga</b> <b>8)Miss Pratibha Chokhi</b> <b>9)Mrs. Bharani · G ·</b> <b>10)Mohana Priya T</b> Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : <b>1)DR DIVYA GOYAL</b> Address of Applicant :DEPARTMENT OF PHYSIOTHERAPY GD GOENKA UNIVERSITY, GURUGRAM HARYANA, INDIA -----</p> <p><b>2)Dr. Vishwajeet Trivedi</b> Address of Applicant :Department of Physiotherapy GD Goenka University , Gurugram , Haryana , India -----</p> <p><b>3)Dr. Parimala</b> Address of Applicant :Department of Zoology, University College of Science, Tumkur University , rumkur , Karnataka, India , 572103 -----</p> <p><b>4)Dr. Richa Mahajan</b> Address of Applicant :Assistant Professor, Department of Physiotherapy, QO Qoenka University , Gurugram , Haryana , India -----</p> <p><b>5)Dr Kanchi LQhitha .Lakshmi</b> Address of Applicant :Associate Professor, Department of Computer Science and Engineering Vasireddy Venkatadri Institute of frechnology , Guntur , Andhra Pradesh , India -----</p> <p><b>6)Dr. ShaikBabu</b> Address of Applicant :Department ofEngineering physics, College of Engineering, Koneru Lakshmaiah Education Founc:lation , Yaddeswaram , [Andhra Pradesh , India -----</p> <p><b>7)Ch. B. v. Durga</b> Address of Applicant :Assistant Professor, PSCMR College of Engineering &amp; Technology, Kothapet , Vijayawada, Andhra Pradesh , India , 1520001 -----</p> <p><b>8)Miss Pratibha Chokhi</b> Address of Applicant :Assistant Professor, Nutrition and Dietetics, Shri Rawatpura Sarkar University Raipur , Chhattisgarh , India -----</p> <p><b>9)Mrs. Bharani · G ·</b> Address of Applicant :Department ofEEE, M.Kumarasamy College of Engineering , Karur , Tamilnadu , India -----</p> <p><b>10)Mohana Priya T</b> Address of Applicant :Department of Computer Science, CHRIST (Deemed to be University) , Hengaluru , Karnataka , India -----</p>
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(57) Abstract :  
Brain cancer is the leading cause of cancer deaths worldwide. One of the most reliable methods in cancer diagnosis is the examination of histological specimens under the microscope by a pathologist. Diagnosis of cancer is carried out by examining the glandular architecture of the specimen based on Deep Learning technique. Conventional histological practice in cancer diagnosis is prone to subjectivity and limited intra and inter-pathologist reproducibility, due to its heavy reliance on human interpretation. A few research efforts have been dedicated to the development of quantitative techniques in order to achieve accurate, robust, and reproducible diagnosis in histological images. An accurate diagnosis is critical for determining optimal treatment. In this invention automated method is designed and developed which helps in classification of brain tissue with more accuracy. Automated MRI (Magnetic Resonance Imaging) brain tumor segmentation is a difficult task due to the variance and complexity of tumors. In this invention, a statistical structure analysis-based tumor segmentation scheme is presented, which focuses on the structural analysis on both tumorous and normal tissues based on Deep Learning. Eight distinct invariant features are used for the prediction of tumor in a given MRI image. In order to choose an effective classifier, three neural networks are used to identify the focuses respectively, and their performance is compared.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202341031911 A

(19) INDIA

(22) Date of filing of Application :04/05/2023

(43) Publication Date : 23/06/2023

(54) Title of the invention : SYSTEM AND METHOD FOR RENEWABLE ENERGY FORECASTING

<p>(51) International classification :C10G 02000, C25B 01040, F03D 15000, G06Q 300200, H02J 033800</p> <p>(56) International Application No Filing Date :PCT// :01/01/1900</p> <p>(57) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number Filing Date : NA</p> <p>(62) Divisional to Application Number Filing Date : NA</p>	<p>(71)Name of Applicant : 1)Dr. UMAVATHI M Address of Applicant :ASSISTANT PROFESSOR DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING B.M.S. COLLEGE OF ENGINEERING BULL TEMPLE RD, BASAVANAGUDI, BENGALURU, KARNATAKA 560019 -----</p> <p>2)Dr. S. PRASATH 3)Mr. HARISH BABU L 4)Dr. SIVASAKTHI BALAN K 5)Dr. R. GIRIJA 6)Prof. ROHAN PRADEEP SHINDE 7)Mrs. P.SASIREKHA</p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)Dr. UMAVATHI M Address of Applicant :ASSISTANT PROFESSOR DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING B.M.S. COLLEGE OF ENGINEERING BULL TEMPLE RD, BASAVANAGUDI, BENGALURU, KARNATAKA 560019 -----</p> <p>2)Dr. S. PRASATH Address of Applicant :ASSOCIATE PROFESSOR DEPARTMENT OF MECHANICAL ENGINEERING MOHAMED SATHAK A J COLLEGE OF ENGINEERING, SIRUSERI,SIPCOT IT PARK, OMR, CHENNAI-603103 -----</p> <p>3)Mr. HARISH BABU L Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF MECHANICAL ENGINEERING SRI SAIRAM COLLEGE OF ENGINEERING SAILEO NAGAR,GUDDANAHALLI (P.O) ANEKAL, BENGALURU - 562 106, KARNATAKA ----</p> <p>4)Dr. SIVASAKTHI BALAN K Address of Applicant :ASSOCIATE PROFESSOR DEPARTMENT OF MECHANICAL ENGINEERING SRI SAIRAM COLLEGE OF ENGINEERING SAILEO NAGAR,GUDDANAHALLI (P.O) ANEKAL, BENGALURU - 562 106, KARNATAKA ----</p> <p>5)Dr. R. GIRIJA Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF PHYSICS (SCIENCE AND HUMANITIES) LOYOLA INSTITUTE OF TECHNOLOGY PALANCHUR, NAZARETH PET, POST, KUTHAMBAKKAM, CHENNAI TAMIL NADU 600123 -----</p> <p>6)Prof. ROHAN PRADEEP SHINDE Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING MIT SCHOOL OF ENGINEERING AND SCIENCES, MIT ADT UNIVERSITY LONI KALBHOR RAJBAUG CAMPUS, LONI KALBHOR, MAHARASHTRA, 412216 -----</p> <p>7)Mrs. P.SASIREKHA Address of Applicant :ASSISTANT PROFESSOR, DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING M.KUMARASAMY COLLEGE OF ENGINEERING THALAVAPALAYAM, KARUR, TAMILNADU 639113 -----</p>
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(57) Abstract :  
ABSTRACT SYSTEM AND METHOD FOR RENEWABLE ENERGY FORECASTING The short-term forecasts of renewable power generation are essential for effectively integrating renewable energy sources. With the waning and overrated petroleum product assets, the globe has at long last moved its concentration towards the utilization of Environmentally friendly power Assets, chiefly Sun based Energy. In this time span, the world has likewise seen a flood in specialized developments in the field of information science and AI. Additionally, it turned out to be exceptionally fundamental for the energy business to anticipate the result of the sun based power and subsequently needed to utilize different AI procedures among different strategies. This work includes 24-hour ahead sun oriented and wind power anticipating utilizing AI calculations. Two AI calculations, to be specific Back spread brain organization and Irregular woods are tried with same dataset. As inexhaustible power age is profoundly reliant upon weather patterns thus, for this work meteorological information of specific area is taken as info information for preparing the organization. For assessment of determining model, a legitimate assessment measure has been utilized for both gauging model individually. Exhibitions of back spread and arbitrary woods calculations are thought about for summer, winter and blustery seasons for sun based power determining. As wind power doesn't rely upon seasons, complete 5 years information is taken for gauging. The model is likewise tried for the remarkable situations where sun oriented irradiance esteem changes radically to arbitrary qualities because of overcast cover

No. of Pages : 28 No. of Claims : 7

(54) Title of the invention : VOICE BASED PRODUCT RECOGNITION FOR VISUALLY IMPAIRED

(51) International classification :A24F 404850, A61H 030600, G07G 010000, G09B 210000, G10L 130000

(86) International Application No :PCT//  
Filing Date :01/01/1900

(87) International Publication No : NA

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

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

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(57) Abstract :  
 ABSTRACT VOICE BASED PRODUCT RECOGNITION FOR VISUALLY IMPAIRED This invention is developed to make the existence of visually impaired individuals simple. This is a camera-based framework to examine the standardized tag behind the picture and read the depiction of the item with the assistance of ID put away in the scanner tag. This is extremely valuable in the event of figuring out the portrayal of bundled merchandise to the visually impaired individuals and subsequently helping them in choosing to buy an item or not particularly which are bundled. To utilize this framework, the client should simply catch the picture on the item in the cell phone which then, at that point, settle the scanner tag which implies it filters the picture to figure out the Id put away. This is exceptionally simple to utilize and reasonable as it requires a scanner to check the standardized identification and a camera telephone to snap the photo of the picture containing the standardized tag. This is presently simple to carry out as the majority of the cell phones today have the necessary goal all together item depiction

No. of Pages : 22 No. of Claims : 6



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ISO 9001:2015 & ISO 14001:2015 Certified Institution

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**KR**

**DEPARTMENT OF MECHANICAL ENGINEERING**

31.05.2023

**Consolidated Report of Patents Published for the AY 2022-23**

S.No	Application No.	Title of the Patent	Faculty Members	Student Members	Journal No.	Publish Date	Date of Filing
1	202341008477 A	An Automatic Spray Painting Machine Using Drone Control	Dr. R. Balamurugan Dr. M. Mohan Prasad	Mr.V.Tamilselvan Mr.P.R.Suriya Mr.N.Tamilarasan	07/2023	17/02/2023	09/02/2023
2	202341008479 A	Rescue Two Wheeler Ambulance	Dr.N.Parthipan Dr.M.Mohan Prasad Dr.S.Padmavathy	Mr.M.Balaji Ms.K.Bhavadharani Mr.G. Jotheeshwaran	07/2023	17/02/2023	09/02/2023
3	202241036671 A	An Automated Wheel Lifting Device	Mr.L.Emmanuel Mr.A.Maria Jackson	Mr.M.Balaji Mr.G.Jotheeshwaran Mr.S.Jenish Kumar Mr.A.Vijayabhinantha	26/2022	01/07/2022	27/06/2022

Department IPR Coordinator/MECH

(S. SATHEESH KUMAR)

HOD/MECH

(54) Title of the invention : AN AUTOMATIC SPRAY PAINTING MACHINE USING DRONE CONTROL

(51) International classification :B64C0039020000, B05B0013040000, E04F0021080000, B05B0015680000, B05B0013000000

(86) International Application No Filing Date :PCT// :01/01/1900

(87) International Publication No : NA

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

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

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(57) Abstract :  
 The present invention discloses an automatic spray painting machine using drone control (15) for coating the paints/chemical compositions over the building walls. The automatic spray painting machine comprises a processor, drone, frame, wheels, reservoir and communication module. The drone (6) comprises a camera (12) for capturing the wall information and a plurality of nozzles (10) configured to spray the paint over the walls. The plurality of reservoirs storing the different colours and the pumps are passing the paint to the nozzles through the flexible pipe tubes (7). The communication module is controlling the drone through the remote control (11) to coat the paint over the walls. The wheel of the machine is providing the horizontal movement and the drone is providing the vertical movement of the machine parts for coating the paint. The spray painting machine will reduce the manual effort for coating the paint in wall building in an efficient manner.

No. of Pages : 22 No. of Claims : 9

(54) Title of the invention : RESCUE TWO WHEELER AMBULANCE

(51) International classification :A61G0001040000, A61G0003000000, A61G0001020000, G16H0040200000, A61G0001013000

(86) International Application No Filing Date :PCT// :01/01/1900

(87) International Publication No : NA

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

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

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(57) Abstract :  
 The present invention discloses a rescue two wheeler ambulance (25) for carrying the patients to the medical centres in the emergency conditions. The rescue two wheeler ambulance (25) comprises a power source, control unit, rotating pillion mechanism, pillion seat, foldable canopy and shock absorbers. The control unit (7) generates the unique signals/sounds while travelling with the patients. The pillion seat (6) mounted with the rotating pillion mechanism for changing the backrest inclination position by operating the pillion locking lever. The backrest with the seat belt (12) is preventing the patient from the fall down while moving towards the medical centres. The foldable canopy (1) covers the patient from the extreme heat and cold conditions. The primary (2) and secondary (8) shock absorbers are reducing the vibrations of the patient by the suspension springs located at the bottom of backrest. The rescue ambulance (25) will help to rescue the patients in traffic as well as hilly regions in an effective manner.

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

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202241036671 A

(19) INDIA

(22) Date of filing of Application :27/06/2022

(43) Publication Date : 01/07/2022

(54) Title of the invention : AN AUTOMATED WHEEL LIFTING DEVICE

(51) International classification :B66F0003440000, B66F0003120000, B62D0049060000, B66F0011040000, B66F0003220000

(86) International Application No :NA  
Filing Date :NA

(87) International Publication No : NA

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

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

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(57) Abstract :

The present invention discloses an automated wheel base lifting device (50) for elevating the wheels in specific conditions. The device comprises a chassis, rack, roller, drive assembly, scissor jack and front axle housing. The rack (54) is detachably mounted to the chassis of vehicle. The roller (53) is rotatably connected to a drive assembly for travelling through the rack to reach the specific area, wherein the drive assembly comprises a stepper motor (56) is configured to receive the power from the vehicle battery and to rotate the roller via the controlled gear arrangement. The scissor jack (52) is operatively connected to a drive assembly for elevating the wheel base of a vehicle by operating the dash board control, wherein the dash board control allows the roller movement via the rack and operates the motorized scissor jack. The automated wheel lifting device will reduce the man power and time for elevating the wheel base to change the tire/wheels.

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