(21) Application No.202041000393 A

#### (19) INDIA

(22) Date of filing of Application :04/01/2020

(43) Publication Date : 20/03/2020

## (54) Title of the invention : METHOD AND SYTEM AND DEVICE FOR ESTIMATING THE POWER REQUIREMENTS OF VARIOUS CIRCUITS AND APPROACHES FOR LOWERING OF POWER CONSUMPTION FOR GIVEN CIRCUIT

(51)	(71)Name of Applicant :
International :G06F0017500000,H01M0004020000,H04W0052420000,G09G0003326600,H01L0023538000	1)P RAHUL REDDY
classification	Address of Applicant :Flat No.
(31) Priority	204, Shiva Sai Enclave, Sai Nagar,
Document :NA	Nalgonda, Telangana 508001
No	Telangana India
(32) Priority :NA	2)GOBINDA PRASAD
Date	ACHARYA
(33) Name	3)Dr. P SUNEEL KUMAR
of priority :NA	4)Dr. K MOHAN RAM
country	5)P N SANTOSH KUMAR
(86)	6)SAGGU RENUKA
International	(72)Name of Inventor :
Application :NA	1)P RAHUL REDDY
No :NA	2)GOBINDA PRASAD
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Date	3)Dr. P SUNEEL KUMAR
(87)	4)Dr. K MOHAN RAM
International Bublication : NA	5)P N SANTOSH KUMAR
Publication : NA	6)SAGGU RENUKA
No	
(61) Patent	
of Addition	
to	
Application :NA	
Number :NA	
Filing	
Date	
(62)	
Divisional to	
Application :NA	
Number :NA	
Filing	
Date	

#### (57) Abstract :

A novel power modeling approach for complex digital circuits, which uses neural networks to learn the power characteristics during simulation. The neural power model has very low complexity such that this power model can be used for complex circuits Power Estimation for different circuits from RTL level to Gate level using different power estimation tools has been performed. It involves the usage of these tools at different levels of abstraction has been shown. Scripts have been developed for each of these levels to automate the flow for each of the digital circuit involved.. However, these results are still very impressive on the reduction of the power model complexity and the feasibility for a wide range of input signal distribution. The lower complexity can reduce the characterization time and estimation time sufficiently. We will try to improve this model in the future such that the maximum error can be further reduced

(21) Application No.202041022652 A

(19) INDIA

(22) Date of filing of Application :29/05/2020

(43) Publication Date : 19/06/2020

<ul> <li>(51) International classification</li> <li>(31) Priority Document No</li> <li>(32) Priority Date</li> <li>(33) Name of priority country</li> <li>(86) International Application No Filing Date</li> <li>(87) International Publication No</li> <li>(61) Patent of Addition to Application Number Filing Date</li> <li>(62) Divisional to Application Number Eiling Date</li> </ul>	:H04W 74/08 :NA :NA :NA :NA :NA :NA :NA :NA	<ul> <li>(71)Name of Applicant : <ul> <li>1)Uma Sai Chaitanya Khandavalli</li> <li>Address of Applicant :Student(4th year, final semester),</li> </ul> </li> <li>Department of Electronics and Communication Engineering,</li> <li>Sreenidhi Institute of Science and Technology, Yamnampet,</li> <li>Hyderabad, Telangana State, India. Telangana India</li> <li>2)Dr. M Mahaboob Basha</li> <li>3)Nishanth Goud Ginnaram</li> <li>4)Tarun Madaraboina</li> <li>5)S P V Subba Rao</li> <li>(72)Name of Inventor : <ul> <li>1)Uma Sai Chaitanya Khandavalli</li> <li>2)Dr. M Mahaboob Basha</li> </ul> </li> </ul>
Filing Date		
(62) Divisional to Application Number Filing Date	:NA :NA	2)Dr. M Manaboob Basha 3)Nishanth Goud Ginnaram 4)Tarun Madaraboina 5)S P V Subba Rao

(54) Title of the invention : A ROBOTIC DEVICE FOR CLEANING OF BEACHES ENABLED BY WIRELESS CONTROL

(57) Abstract :

Climate change has been of great concern of late. The harmful effects are the resultant of man-made objects which directly affect the environment. A major concern is the marine debris that has decreased the pleasant feeling which is essential to attract tourists and has also great damage to marine life. In this regard, this robot is designed to move around the beach using wireless commands, collect the sand along with debris and clean it using sifting mechanism based on density principle. The waste settles on a mesh, leaving out the soft sand on the beach. The collected waste is manually taken into a container. The moving mechanism is driven through relays interfaced to a microcontroller chip. The sand lifting mechanism, constructed with chain sprockets and the chain mechanism firmly attached to the stable mechanical structure and along with rotary mechanism will be fixed permanently to the chassis of moving structure.

(19) INDIA

(22) Date of filing of Application :21/04/2020

#### (21) Application No.202041017082 A

(43) Publication Date : 05/06/2020

#### (54) Title of the invention : AUTOMATIC VOLTAGE LEVEL UP/LEVEL DOWN SHIFTER FOR VLSI CIRCUITS

<ul> <li>(51)</li> <li>International :H03K0019018500,H03K0003356000,H03K001900000,H03K0003011000,H03K0003030000</li> <li>classification</li> <li>(31) Priority</li> <li>Document :NA</li> <li>No</li> <li>(32) Priority :NA</li> <li>Date</li> <li>(33) Name</li> <li>of priority :NA</li> <li>country</li> <li>(86)</li> <li>International</li> <li>Application :NA</li> <li>No</li> <li>:NA</li> <li>Filing</li> <li>Date</li> <li>(87)</li> <li>International :NA</li> <li>No</li> <li>NA</li> <li>Publication :NA</li> <li>No</li> </ul>	1)Dr. Srinivasulu Gundala Address of Applicant :Professor, Dept. of Electronics and Communication Engineering, Lakireddy Bali Reddy College of Engineering (Autonomous), Mylavaram, Krishna Dt, Andhra Pradesh, India Andhra Pradesh India (72)Name of Inventor : 1)Dr. Srinivasulu Gundala 2)Dr. M Mahaboob
•	
Application :NA	
	(72)Name of Inventor
(87)	:
International : NA	
Fublication	
(61) Patent of Addition	Basha 3)Dr. Kommu
to	Siddhartha
Application :NA	Mavovarakumar
Number :NA	True of al anumal
Filing	
Date	
(62)	
Divisional to	
Application :NA	
Number :NA	
Filing	
Date	
(57) Abstract :	·

(57) Abstract :

A Digital circuit do voltage level shifting, the circuit includes a short circuit aware MOS transistor and a transmission gate based voltage level shifting; wherein the digital circuit comprises 2 X 1 Multiplexer to select VDDH or VDDL with one NMOS transistor and one PMOS transistor in the level shifting selection stage; wherein the digital circuit receives an input voltage (VIN) from the multi voltage supply circuits and produces an output voltage (VOUT); wherein the input VIN has a voltage swing between VDDL and VDDH supply voltage or rail voltage; wherein the output VOUT has a voltage swing between VDDH and VDDL supply voltage or rail voltage; and wherein the level shifter circuit selects type of level shifting in response to a level of the input voltage. The short circuit aware MOS transistor and Transmission gates as switching elements provides low power consumption and Delay even at higher frequencies.

(12) PATENT APPLICATION PUBLICATION(19) INDIA

(21) Application No.202041011597 A

(22) Date of filing of Application :18/03/2020

(43) Publication Date : 01/05/2020

## (54) Title of the invention : ABNORMAL BLOOD VESSELS ANNOTATION SYSTEM FOR DIABETIC RETINOPATHY PATIENTS

(51) International classification	A61B0003120000, A61B0003000000,	,
	G06T0007120000	Andhra Pradesh-516172, India. Andhra Pradesh India
(31) Priority Document No	:NA	2)Jahangir Badashah Syed
(32) Priority Date	:NA	3)Rajakumar B. R.
(33) Name of priority country	:NA	4)Binu Dennis
(86) International Application No	:NA	(72)Name of Inventor :
Filing Date	:NA	1)Shafiulla Basha Shaik
(87) International Publication No	: NA	2)Jahangir Badashah Syed
(61) Patent of Addition to Application Number	r :NA	3)Rajakumar B. R.
Filing Date	:NA	4)Binu Dennis
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

#### (57) Abstract :

The present invention discloses the abnormal blood vessels annotation system for diabetic retinopathy patients, which comprises annotation system for detecting the damaged blood vessel present in the eye. The main design of the present invention is to determine and annotate whether any damaged blood vessel is present in diabetic retinopathy (DR) patients, which undergoes several processes such as pre-processing, blood vessel segmentation, optic disc segmentation, feature extraction, and classification. The comparator is included to compare the output of the processed image with the image of the normal blood vessel to determine the exact region of the damage blood vessels, and finally the annotation system determines the risk level to find out the annotated abnormal blood vessel. [To be published with Figure.1]

#### (19) INDIA

(22) Date of filing of Application :14/10/2020

#### (54) Title of the invention : VLSI BASED EEG SIGNAL PROCESSING FOR SMART PATIENT MONITORING SYSTEM (71)Name of Applicant : 1)Dr Vikram Palodiya, Sreenidhi Institute of science and Technology Address of Applicant : Assistant professor, ECE Sreenidhi Institute of science and Technology Yanampet Hyderabad Telangana India 501301 Telangana India 2)Dr Syed Jahangir Badashah, Sreenidhi Institute of science and Technology 3)Dr Shaik Shafiulla Basha, Y.S.R. Engineering college of Yogi Vemana Universitv 4)Dr.Prakash Pareek, Vishnu Institute of Technology (Autonomous) 5)Dr B P Santosh Kumar, Y.S.R. Engineering college of Yogi Vemana University 6)Dr. Sushma Jaiswal,CSIT,Guru Ghasidas Central University 7)Dr. Vipin Kumar Garg, Meerut Institute of Engineering & :A61B (51) International classification Technology 5/00 8)Kalyan Singh,Guru Jambheshwar University of Science and (31) Priority Document No :NA Technology (32) Priority Date :NA 9)Krishan Kumar, Guru Jambheshwar University of Science and (33) Name of priority country :NA Technology (86) International Application No :NA 10)Dr. Dhirendra Kumar Shukla, Regional Institute of Education, Filing Date :NA NCERT (87) International Publication No : NA (72)Name of Inventor : (61) Patent of Addition to Application Number :NA 1)Dr Vikram Palodiya, Sreenidhi Institute of science and Filing Date :NA Technology (62) Divisional to Application Number :NA 2)Dr Syed Jahangir Badashah, Sreenidhi Institute of science and Filing Date :NA Technology 3)Dr Shaik Shafiulla Basha, Y.S.R. Engineering college of Yogi Vemana Universitv 4)Dr.Prakash Pareek.Vishnu Institute of Technology (Autonomous) 5)Dr B P Santosh Kumar, Y.S.R. Engineering college of Yogi Vemana University 6)Dr. Sushma Jaiswal, CSIT, Guru Ghasidas Central University 7)Dr. Vipin Kumar Garg, Meerut Institute of Engineering &

(57) Abstract :

In the current pandemic situation, patients with critical diseases are lacking immediate care which would reduce the mortality rate. This invention focuses on continuous monitoring of patientâ $\in$ TMs EEG signals for occurrence of any seizures in brain signals. This system is designed using machine learning algorithm for resource optimization thereby implemented using VLSI technology. The proposed algorithm provides competitive performance as it requires EEG signals only from front and frontal temporal lobes instead of signals from standard full EEG system. Seizure detection is accurate just by easily mountable headsets of dry electrode without the need of painful through- hair electrodes which is highly uncomfortable and uses adhesive material. Compact VLSI implementation is uploaded on low power FPGA Actel Igloo AGL250 that consumes 110 Watts of dynamic power and required 1237 logical elements, operating at a detection latency of 10.2 seconds provides specificity of 80.2% and sensitivity of detection as 92.6%.

Technology

Technology

Technology

NCERT

8)Kalyan Singh,Guru Jambheshwar University of Science and

9)Krishan Kumar,Guru Jambheshwar University of Science and

10)Dr. Dhirendra Kumar Shukla, Regional Institute of Education,

(22) Date of filing of Application :20/11/2020

#### (54) Title of the invention : INVESTIGATION OF IOT BASED LIFE CARE AUTONOMOUS SYSTEM

<ul> <li>(51) International classification</li> <li>(31) Priority Document No</li> <li>(32) Priority Date</li> <li>(33) Name of priority country</li> <li>(86) International Application No Filing Date</li> <li>(87) International Publication No</li> <li>(61) Patent of Addition to Application Number Filing Date</li> <li>(62) Divisional to Application Number Filing Date</li> </ul>	:H04L 12/715 :NA :NA :NA :NA :NA :NA :NA :NA	<ul> <li>(71)Name of Applicant :</li> <li>1)Dr Syed Jahangir Badashah Address of Applicant :Professor, Department of ECE, Sreenidhi Institute of science and Technology, Yanampet, Hyderabad, Telangana, India 501301 Telangana India</li> <li>2)Dr.Prakash Pareek</li> <li>3)Dr M Janardhana Raju</li> <li>4)Sivakumar R. D.</li> <li>5)Praveen Kumar Vemuri</li> <li>6)Gummmavajjala Mahathi</li> <li>7)Naredla Kusuma</li> <li>8)Dr. M. Kayalvizhi</li> <li>9)Velnath. R</li> <li>10)Asisa Kumar Panigrahy</li> <li>(72)Name of Inventor :</li> <li>1)Dr Syed Jahangir Badashah</li> <li>2)Dr.Prakash Pareek</li> <li>3)Dr M Janardhana Raju</li> <li>4)Sivakumar R. D.</li> <li>5)Praveen Kumar Vemuri</li> <li>6)Gummavajjala Mahathi</li> <li>7)Naredla Kusuma</li> <li>8)Dr. M. Kayalvizhi</li> <li>9)Velnath. R</li> <li>10)Asisa Kumar Panigrahy</li> <li>(72)Name of Inventor :</li> <li>1)Dr Syed Jahangir Badashah</li> <li>2)Dr.Prakash Pareek</li> <li>3)Dr M Janardhana Raju</li> <li>4)Sivakumar R. D.</li> <li>5)Praveen Kumar Vemuri</li> <li>6)Gummavajjala Mahathi</li> <li>7)Naredla Kusuma</li> <li>8)Dr. M. Kayalvizhi</li> <li>9)Velnath. R</li> <li>10)Asisa Kusuma</li> <li>8)Dr. M. Kayalvizhi</li> <li>9)Velnath. R</li> <li>10)Asisa Kumar Panigrahy</li> </ul>
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#### (57) Abstract :

Rapid development of technology, leads to new possibilities embracing in various traditional business sectors specifically Internet of Things (IoT) along with smart devices plays significant role for the development of health care centre. The technology of IoT transforms the landscape of healthcare, thereby posing higher requirement of resource management in hospitals. This invention develops an IoT system that can be deployed in hospitals for several applications which is able to support various data collection methods such as Wi-Fi, LoRa etc. This collected data is uploaded to the cloud platform through a secure connection for further processing by which feedback is provided to the users utilizing user interface in real time. This invention measures physiological parameters of In-hospital patients periodically by IoT eliminating the need of a health care professional by ubiquitous monitoring system utilizing sensors, gateways and cloud for analyzing and storage of data. This recorded data is communicated to physicians wirelessly such that physicians are able to access patient<sup>TM</sup>s data from any location through any smart devices such as PC, smart phone or tablet thereby prescribing appropriate medication. Hence IoT provides Autonomous life care system with higher efficiency and lower cost.

(19) INDIA

(22) Date of filing of Application :31/01/2021

#### (54) Title of the invention : DEVELOPMENT OF ARTIFICIAL INTELLIGENCE BASED TRAFFIC MANAGEMENT SYSTEM FOR EMERGENCY VEHICLES

(51) International classification       :G08         (31) Priority Document No       :NA         (32) Priority Date       :NA         (33) Name of priority country       :NA         (86) International Application No       :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         Filing Date       :NA	<ul> <li>(71)Name of Applicant : <ul> <li>1)Koya Jeevan Reddy, Sreenidhi Institute of Science and</li> <li>Technology</li> <li>Address of Applicant :Sreenidhi Institute of Science and</li> <li>Technology Yamnampet, Ghatkesar Hyderabad Telangana India</li> <li>501301 Telangana India</li> <li>2)Vikas Pandey,Babu Banarasi Das University,Lucknow</li> <li>3)Shashikant,Babu Banarasi Das University, Lucknow</li> <li>4)Dr. J. S. Binoj,Sree Vidyanikethan Engineering College</li> <li>(Autonomous)</li> <li>5)Dr. Bharti Sharma,Maharaja Surajmal Institute of</li> <li>Technology</li> <li>6)Priya Dalal,Maharaja Surajmal Institute of Technology</li> <li>7)Mrs. G. Shyni,Edutancy Global Services</li> <li>8)Dr. A. Sagai Francis Britto,Rohini College of Engineering and Technology</li> <li>9)Dr. Binaya Patnaik</li> <li>10)Yusuf Durachman,State Islamic University of Syarif</li> <li>Hidayatullah Jakarta</li> <li>(72)Name of Inventor :</li> <li>1)Koya Jeevan Reddy, Sreenidhi Institute of Science and Technology</li> <li>2)Vikas Pandey,Babu Banarasi Das University,Lucknow</li> <li>3)Shashikant,Babu Banarasi Das University,Lucknow</li> <li>3)Shashikant,Babu Banarasi Das University,Lucknow</li> <li>3)Shashikant,Babu Banarasi Das University,Lucknow</li> <li>3)Shashikant,Babu Banarasi Das University, Lucknow</li> <li>4)Dr. J. S. Binoj,Sree Vidyanikethan Engineering College</li> <li>(Autonomous)</li> <li>5)Dr. Bharti Sharma,Maharaja Surajmal Institute of Technology</li> <li>6)Priya Dalal,Maharaja Surajmal Institute of Technology</li> <li>6)Priya Dalal,Maharaja Surajmal Institute of Technology</li> <li>7)Mrs. G. Shyni,Edutancy Global Services</li> <li>8)Dr. A. Sagai Francis Britto,Rohini College of Engineering and Technology</li> <li>9)Dr. Binaya Patnaik</li> <li>10)Yusuf Durachman,State Islamic University of Syarif</li> <li>Hidayatullah Jakarta</li> </ul> </li> </ul>
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(57) Abstract :

Machine based smart behavior is provided by the technology of Artificial Intelligence. Prediction of Solution by the computer for any problem is based on its algorithms executed by its brain. Computer task are performed by Artificial Intelligence (AI) similar to that of human brain. Machines operating based on AI learn from the environment and act same as human intelligence. This invention focuses on traffic management for emergency vehicles based on Artificial Intelligence. The key problem faced by urban traffic system throughout the world is inefficient management of traffic by officials during emergencies leading to loss of life. Many deaths occur as the victim of an accident is not able to get the treatment on time. This invention proposes a lane management system based on AI for effective flow of traffic during medical emergencies. Real time tracking of the path of the ambulance is done and hence diverted based on the smart traffic management system. Artificial Intelligence based system predicts the path to be taken during medical emergencies saving human life.

(22) Date of filing of Application :09/01/2021

# (71)Name of Applicant : (71)Name of Applicant : (1)Koya Jeevan Reddy,Sreenidhi Institute of Science and Technology Address of Applicant :Sreenidhi Institute of Science and Technology, Yamnampet, Gatkesar Hyderabad Telangana India 501301 Telangana India 2)Dr.Anand kumar,Shri Venkateshwara University 3)Mrs. C. Sucharitha,Mahatma Gandhi Institute of Technology 4)M. Shanmathi,Saveetha Engineering College 5)Ruchi Yadav,Sharda University 6)Dr. Sushma Jaiswal,CSIT, Guru Ghasidas Central University 7)Dr. Narayan Dattatraya Totewad,B. K. Birla College of Arts,

(54) Title of the invention : IOT BASED AUTONOMOUS FLOOR DISINFECTING SMART UV ROBOTIC SYSTEM

(51) International classification	:G08C17/02	7)Dr. Narayan Dattatraya Totewad, B. K. Birla College of Arts,
(31) Priority Document No	:NA	Science and Commerce (A)
(32) Priority Date	:NA	8)Dr. Ram D Isankar, Govt. Vidarbha Institute of science and
(33) Name of priority country	:NA	Humanities
(86) International Application No	:NA	9)Dr. Snehalkumar H Mistry,Bhagwan Mahavir College of
Filing Date	:NA	Management,
(87) International Publication No	: NA	10)Selva Kumar S,B. M. S. College Of Engineering
(61) Patent of Addition to Application Number	:NA	(72)Name of Inventor :
Filing Date	:NA	1)Koya Jeevan Reddy,Sreenidhi Institute of Science and
(62) Divisional to Application Number	:NA	Technology
Filing Date	:NA	2)Dr.Anand kumar,Shri Venkateshwara University
		3)Mrs. C. Sucharitha, Mahatma Gandhi Institute of Technology
		4)M. Shanmathi,Saveetha Engineering College
		5)Ruchi Yadav,Sharda University
		6)Dr. Sushma Jaiswal,CSIT, Guru Ghasidas Central University
		7)Dr. Narayan Dattatraya Totewad,B. K. Birla College of Arts,
		Science and Commerce (A)
		8)Dr. Ram D Isankar, Govt. Vidarbha Institute of science and
		Humanities
		9)Dr. Snehalkumar H Mistry,Bhagwan Mahavir College of
		Management,
		10)Selva Kumar S,B. M. S. College Of Engineering

#### (57) Abstract :

In this pandemic era, safety is demanded by everyone in the universe. Spread of the pandemic disease can be prevented by effective disinfecting process. Ultra Violet radiation of C spectrum with wavelength shorter than that of 300 nm is effective in killing micro organism as can significantly provide disinfection process, able to destroy the DNA of microorganisms such as viruses, bacteria, molds and fungi. But it is not easy to operate these UV radiators by human as it can affect the operating personnel. In this invention, an autonomous robotic system is proposed which can disinfect the floor using ultraviolet radiation without any human intervention. Movement of this system is based on the sensed data from LiDAR which transmits light rays and collects the reflected signal thereby providing three dimensional perception of the floor to be disinfected. Obstacle detection is based on the LiDAR operation along with Infrared sensor which can detect obstacle upto 2 cm. Servo motor and DC motor together facilitate the movement of the robotic system. The system can be operated either by Webpage or by using user Application.

(22) Date of filing of Application :23/09/2019

#### (54) Title of the invention : A SYSTEM AND METHOD FOR AI BASED GPS ACCREDIT MORATORIUM SYSTEM

		(71)Name of Applicant :
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		Address of Applicant :S/O SYED ABDUL SALAM,
		PROFESSOR IN ELECTRONICS AND COMMUNICATION
(51) International classification	:G06K9/00785	ENGINEERING, SREENIDHI INSTITUTE OF SCIENCE AND
(31) Priority Document No	:NA	TECHNOLOGY, HYDERABAD, TELANGANA -
(32) Priority Date	:NA	501301,INDIA Telangana India
(33) Name of priority country	:NA	2)Dr. R. GANESH BABU
(86) International Application No	:NA	3)Mr. SUBHANI SHAIK
Filing Date	:NA	4)Mr. S.PARTHASARATHY
(87) International Publication No	: NA	5)Dr. T. K. SANTHOSH
(61) Patent of Addition to Application Number	:NA	6)Mr. KOMMI AMARA KOTESWARA RAO
Filing Date	:NA	(72)Name of Inventor :
(62) Divisional to Application Number	:NA	1)Dr. SYED JAHANGIR BADASHAH
Filing Date	:NA	2)Dr. T. K. SANTHOSH
		3)Mr. S.PARTHASARATHY
		4)Dr. R. GANESH BABU
		5)Mr. SUBHANI SHAIK
		6)Mr. KOMMI AMARA KOTESWARA RAO

(57) Abstract :

The present invention GPS enabled suspension system • relates to automobile field in suspension mechanisms. More particularly this invention has GPS enabled shock absorber which means the device includes GPS system, electronically controlled shock absorber and basic components. This invention controls the suspension systems with GPS help. The suspension system of a vehicle refers to the group of mechanical components that connect the wheels to the frame or body. A great deal of engineering effort has gone into the design of suspension systems because of an unending effort to improve vehicle ride and handling along with passenger safety and comfort. In the horse and buggy days, the suspension system consisted merely of a beam (axle) that extended across the width of the vehicle. In the front, the wheels were mounted to the axle ends and the axle was rotated at the center to provide steering. The early automobiles used the one-piece axle design but instead of being rotated at the center, it was fix-mounted to the value ends to provide steering. The first springs consisted of thin layers of narrow pieces of strip steel stacked together in an elliptical shape and were called leaf springs. In later installations, leaf springs were replaced by coil springs. In front-engine rear-drive vehicles, the front beam axle was replaced by independently mounted steerable wheels. The wheels were supported by short upper and lower hinged arms holding them perpendicular to the road as did the previous axle beam designs. A coil spring was used to support either the upper or the lower arm to provide dampening. Shock absorbers began to be used to dampen shock loads and also to provide resistance to spring oscillations.

(21) Application No.202041017470 A

(19) INDIA

(22) Date of filing of Application :23/04/2020

(43) Publication Date : 29/05/2020

(54) Title of the invention : DOORBELL USING THE PIEZO ELECTRIC ENERGY HARVESTING UNIT AS A DOORMAT

	:H02N0002180000,	(71)Name of Applicant :
	H01L0041113000,	1)Dr. C. N. Sujatha
(51) International classification	A47L0023260000,	Address of Applicant :Sreenidhi Institute of Science and
	F03D0009110000,	Technology, Yamnampet Village, Ghatkesar, RR District,
	H02J0050200000	Telangana 501301 Telangana India
(31) Priority Document No	:NA	2)P. Sri Lakshmi
(32) Priority Date	:NA	3)Y. Sushitha Reddy
(33) Name of priority country	:NA	4)I. Mrudula Sai
(86) International Application No	:NA	(72)Name of Inventor :
Filing Date	:NA	1)Dr. C. N. Sujatha
(87) International Publication No	: NA	2)P. Sri Lakshmi
(61) Patent of Addition to Application	:NA	3)Y. Sushitha Reddy
Number	:NA	4)I. Mrudula Sai
Filing Date		
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

As an alternate to conventional power sources, this invention aims to harness mechanical energy dissipated through human footsteps by using the piezoelectric phenomenon. An arrangement of sensors along with an appropriate mechanical coupling design, serves as the basis for the piezoelectric energy harvesting tile that harnesses energy from mechanical motion. The electric energy generated when appropriate load is applied on the tile is captured via the load circuit designed to cumulate irregular pulses of power from the piezoelectric stacks, rectify them, stores them in a capacitor and convert accumulated energy to a constant DC output when a xed voltage level has reached on a storage capacitor. This energy can be utilized to power different electronic devices which consume low power. The Harvesting unit is a doormat provided at a suitable height so when a visitor steps on it the doorbell is activated and it notifies the user of their presence.

#### (22) Date of filing of Application :27/05/2019

(43) Publication Date : 07/06/2019

#### (54) Title of the invention : PATIENT MONITORING SYSTEM BASED ON EEG SIGNAL ACQUISITION MOBILE COMPUTING DEVICE

(51) International classification:A61B5/(31) Priority Document No:NA(32) Priority Date:NA(33) Name of priority country:NA(86) International Application No:NAFiling Date:NA(87) International Publication No:NA(61) Patent of Addition to Application Number:NAFiling Date:NA(62) Divisional to Application Number:NAFiling Date:NA(63) Patent of Addition Number:NA(64) Patent of Addition Number:NA(65) Divisional to Application Number:NA(66) Divisional to Application Number:NAFiling Date:NA	<ul> <li>(71)Name of Applicant : <ul> <li>1)SPV Subba Rao</li> <li>Address of Applicant :Professor, Department of Electronic &amp; Communication, Sreenidhi Institute Of Science and Technology, Yamnampet, Ghatkesar, Hyderabad - 501 301 Telangana, India.</li> <li>Telangana India</li> <li>2)Shruti Bhargava Choubey</li> <li>3)Sandeep Kumar</li> <li>4)Abhishek Choubey</li> <li>(72)Name of Inventor : <ul> <li>1)SPV Subba Rao</li> <li>2)Shruti Bhargava Choubey</li> <li>3)Sandeep Kumar</li> <li>4)Abhishek Choubey</li> </ul> </li> </ul></li></ul>
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#### (57) Abstract :

The present invention is related to a patient monitoring system based on EEG signal acquisition mobile system. The system comprises an electroencephalograph, for the acquisition and conditioning of the EEG signal & plurality of IoT sensor in a patient setting area. A mobile computing device is configured to send the data packet with the EEG signal via a wireless communication protocol, allowing a central monitoring system to monitor, analysis and act on the behavior of the cerebral activity by exposing the patient to an everyday stimulus providing a greater range of coverage; and the signal outcomes from the sensor in the patient setting area.

#### (19) INDIA

(22) Date of filing of Application :23/09/2020

## (54) Title of the invention : A SYSTEM AND METHOD FOR CONTROLLING USER TERMINALS TO MINIMIZE CORONAVIRUS SPREAD AND METHOD FOR IDENTIFYING THE SAME

(51) International classification	:H04W 4/029 G06N 3/02 G16H 50/20	<ul> <li>(71)Name of Applicant :</li> <li>1)DR. VANDNA PATHAK</li> <li>Address of Applicant :ASSOCIATE PROFESSOR,</li> <li>DEPARTMENT OF PHYSICAL SCIENCES FACULTY OF</li> <li>SCIENCE &amp; ENVIONMENTAL, MGCGV, CHITRAKOOT</li> <li>UNIVERSITY SATNA, M.P-485334 Madhya Pradesh India</li> </ul>
(31) Priority Document No	:NA	2)ABHISHEK CHOUBEY
(32) Priority Date	:NA	3)DR. VIRENDRA RAJAK
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(61) Patent of Addition to Application Number	:NA	3)DR. VIRENDRA RAJAK
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(62) Divisional to Application Number	:NA	
Filing Date	:NA	

#### (57) Abstract :

The present invention is related to a method and system for controlling user terminals to minimize the spread of coronavirus using artificial intelligence based algorithms and method for identifying the infectious subjected person of coronavirus based on comparison of gene level expressions. The objective of the invention is to minimize the spread of coronavirus by supervising the movement of user terminals and identifying the infection on a preliminary stage. The method and system comprising the steps of automatically monitoring the user terminals based on GPS/Bluetooth of the user terminals, sending the said data to the central server, processing the collected data of the user terminals using the artificial intelligence based algorithms and alarming the user terminals based on the calculated risk of infections to the nearby user terminals. The invention further disclose a method for identifying the infection by determining the gene expression levels from a peripheral blood sample of the subject, comparing the gene expression levels with standard gene expression levels and difference of the gene expression levels is indicative of the subject infected with coronavirus. The invention is useful in controlling and identifying the persons with current situation of coronavirus disease.

#### (19) INDIA

(22) Date of filing of Application :17/06/2019

(43) Publication Date : 09/08/2019

#### (54) Title of the invention : BIT SYNCHRONIZER FOR BIPHASE INPUT WITH VARIABLE BITRATE

(51) International classification	:H03L7/12	(71)Name of Applicant :
(31) Priority Document No	:NA	1)SREENIDHI INSTITUTE OF SCIENCE AND
(32) Priority Date	:NA	TECHNOLOGY
(33) Name of priority country	:NA	Address of Applicant :Sreenidhi Institute of Science and
(86) International Application No	:NA	Technology, Yamnampet, Ghatkesar, Ranga Reddy District
Filing Date	:NA	Telangana State Telangana India
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number	:NA	1)Dr.D.Ajitha
Filing Date	:NA	2)Dr. S.P.V Subba Rao
(62) Divisional to Application Number	:NA	3)Palwai Sandeep
Filing Date	:NA	4)Madige Uma

(57) Abstract :

This invention presents the hardware description model of bit synchronizer for variable data rates (upto 10Mbps bitrate) using verilog. In this invention, Bit Synchronizer is fed with reference clock and biphase L/M/S waves as input and the clock and data is derived from this biphase input data using reference clock. To implement this invention we mainly use 100Mhz reference clock with counters, pulse generators and phase detectors for deriving clock. It is simulated and synthesized using XILINX VIVADO tool which is open source available on internet. The whole design is coded using verilog in vivado software. The designed is tested for variable input bitrate upto 10Mbps biphase input and simulation results are pictured in this paper. The design is also tested for biphase data PN sequence input. We also extended this invention for variable duty cycles which is under testing