Consolidated list of Patents: Granted / Published in the last five academic years

S. No.	Name of the Inventor(s)	Application No.	Title of the Patent	Granted / Published / Filed	Date	Page No.
1	Dr. Prakash Bethapudi Mr. Netaji Gandi Mr. Ajay Kumar Badhan Mr. Srinivas Adapa	AU 2021103962 A4	A Portable System and Method for Real Time Monitoring the Indoor Air Quality using IoT	Granted	19/05/2022	3
2	Dr.K.Durga Syam Prasad	AU 2021101814 A4	A Novel Image Denoising Method with Hybrid Dual Tree Complex Wavelet Transform	Granted	17/06/2021	4
3	Dr. Sudhakar Jyothula	202241020086	Fast Statistical Imaging Reconstruction by Algebraic Reconstruction Technique	Published	15/04/2022	5
4	Dr. Akanksha Mishra	202241016653	Electric Field Distribution Factor for Optimization of Gas Insulated Bus Duct	Published	01/04/2022	6
5	Ms. P. Sravani	202131062308	Artificial Intelligence and Robotic Enabled Future Generation of Smart Satellites	Published	04/02/2022	7
6	Mr. Sashikanth Betha	DE202021105895U1	System for Morphology Segmentation of Brain MRI Modalities based on E-fuzzy Features and Thresholds	Published	13/01/2022	8
7	Dr. Prakash Bethapudi Mrs. B. Siva Lakshmi Mrs. B. Sudha Madhuri	202141052126	A Portable System and Method for Creating Virtual Environment using IoT System	Published	26/11/2021	9
8	Mrs. M. Pallavi	202141050872	Design of Intelligent Communicated Distillation System to Purify Water	Published	19/11/2021	10

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9	Mr. Pilla Mohan Ganesh	202141031755	A System and Method for E-Mail Feedback in a Trusted Network using Non Deterministic Methods and Tools	Published	16/07/2021	11
10	Dr. K. Vijaya Kumar	202041055801	Method for Providing Encrypted Secure Communications in Networked Internet of Things (IoT) Devices	Published	26/02/2021	12
11	Dr. K. Vijaya Kumar	US20210049206A1	Computer Implemented Method and a Computer System for Document Clustering and Text Mining.	Published	18/02/2021	13
12	Mr. Pilla Mohan Ganesh	202141004114	A System and Method for Data Mining in Datasets for mismatch Data Reduction	Published	05/02/2021	14
13	Dr. Prakash Bethapudi	202041055099	Flexible Spacesuit Hand Gloves	Published	25/12/2020	15
14	Dr.K.Durga Syam Prasad	202041052806	System and Method for Forced Heat Transfer Water Cooling in Thermoelectric Generator	Published	11/12/2020	16
15	Dr.K.Durga Syam Prasad Mr. Avinash Vujji	202041048086	Conversion of Sliding Mode Controller to Grid Connected PV System for Boosting the Power for Inverter	Published	13/11/2020	17
16	Dr. Sudhakar Jyothula	202041046908	Efficient Energy Floating Point Multiplier Unit using Multi Threshold Dual Spacer Delay Insensitive Approach	Published	06/11/2020	18
17	Dr.K.Durga Syam Prasad	202041047385	Conversion based Fault Identifier in Three Phase Transformer using Wavelet Transform Technique	Published	06/11/2020	19
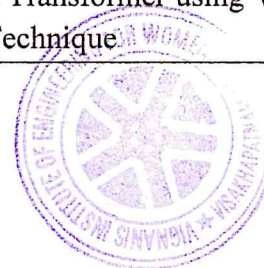
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(54)   Title
   A portable system and method for real-time monitoring the indoor air quality using IoT

(51)   International Patent Classification(s)
   G01N 33/00 (2006.01)   *H04W 4/38* (2018.01)
   G01N 1/22 (2006.01)   *G16Y 30/00* (2020.01)
   G16Y 20/10 (2020.01)   *H04L 67/12* (2022.01)
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(12) **INNOVATION PATENT**

(19) **AUSTRALIAN PATENT OFFICE**

(11) Application No. **AU 2021101814 A4**

(54) Title
A NOVEL IMAGE DENOISING METHOD WITH HYBRID DUAL TREE COMPLEX WAVE-LET TRANSFORM

(51) International Patent Classification(s)
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(57) Abstract :
Systems and techniques for iteratively reconstructing pictures from data captured using a medical imaging system are described in this paper. a. Introduction: The picture reconstruction issue is broken into discrete linear sub-problems, each of which can be handled more efficiently than the previous one. A statistical image reconstruction process is split into a statistically-weighted algebraic reconstruction update sequence and a statistically-weighted algebraic reconstruction update sequence. Using a regularization function, the rebuilt picture is then denoised when this stage is completed.

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

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(57) Abstract :
The current invention is meant for novel optimization of gas insulated bus duct considering electric field distribution factor. Gas Insulated Substation (GIS) is essential for the transmission and control of power both in AC and DC electrical systems. An optimally designed conductor is essential for the designing of a reliable GIS at affordable cost. In recent times, Functionally Graded Material (FGM) technology is widely used for the design of the spacer material in the GIS to reduce the electric stress in the system. This invention supports a novel optimization method for the optimization of the conductor size. The conductor radius is optimized to optimize the use of copper for the conductor. A novel index, namely, electric field distribution factor (EFDF), which is a combined representation of maximum stress and standard deviation is proposed for the determination of the optimal value of the dielectric material. Thereafter, a post type spacer has been incorporated in the system. The material of the spacer has been optimized using FGM technology. The performance of the optimized system has been studied and compared with a system without FGM. This invention has benefits to many stakeholders such as power distribution companies, governments, entities associated with power distribution, researchers and academia.

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

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(54) Title of the invention : ARTIFICIAL INTELLIGENCE AND ROBOTIC ENABLED FUTURE GENERATION OF SMART SATELLITES

(51) International classification	:B25J0009160000, G06N0003000000, B64G0001100000, B25J0011000000, C12Q0001688600
( ) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
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(57) Abstract :
It reveals a system and technique for space exploration using proxy robot surrogates controlled by humans. The method includes the   s of training the human-controlled proxy robot surrogates with the help of human handlers, controlling the human-controlled proxy robot surrogates with the help of the human handlers, and deploying a plurality of human-controlled proxy robot surrogates for extraterrestrial missions, missions on Earth, missions on the Moon, and missions in the vicinity of the Earth. Each of the human-controlled proxy robot surrogates is in contact with each of the human handlers, and each of the plurality of proxy robot surrogates is paired with each of the plurality of human handlers, according to the invention. In addition, the proxy robot surrogates are controlled by humans and have artificial intelligence built-in (AI). The taught behaviour is part of the artificial intelligence used by the disclosed approach.

No. of Pages : 23 No. of Claims : 5

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Die folgenden Angaben sind den vom Anmelder eingereichten Unterlagen entnommen.

(54) Bezeichnung: **System zur Morphologie-Segmentierung von Gehirn-MRI-Modalitäten auf Basis von E-Fuzzy Merkmalen und Schwellenwerten**

(57) Hauptanspruch: System zur Morphologiesegmentierung von Gehirn-MRI-Modalitäten auf Basis von E-Fuzzy Merkmalen und Schwellenwerten, wobei das System Folgendes umfasst:
ein Vorverarbeitungsmodul, das so konfiguriert ist, dass es Rauschen aus den MRI-Bildern entfernt und dadurch wichtige Details in dem Bild unter Verwendung einer Vielzahl von Durchschnittsfiltern bewahrt;
ein Modul zur Merkmalsextraktion in Fortsetzung des Vorverarbeitungsmoduls, um Informationen auf höherer Ebene des Bildes mit Hilfe einer erweiterten Graustufen-Ko-Auftritts-Matrix (E-GLCM);
ein Modul zur Merkmalsverschmelzung, das zur Erkennung von Tumoren eingesetzt wird, indem zwei oder mehr medizinische Bilder durch die Kombination von Merkmalen aus mehreren MRI-Modalitäten zur gleichen Zeit zu einem neuen Bild unter Verwendung der erweiterten Graustufen-Ko-Auftritts-Matrix (E-GLCM) verschmolzen werden; und
ein Segmentierungsmodul zur Trennung von Tumorgewebe und normalem Hirngewebe bei der Erkennung von Hirntumoren unter Verwendung einer auf Schwellenwerten basierenden Segmentierung und der morphologischen Operationen für eine genaue und effiziente Segmentierung.
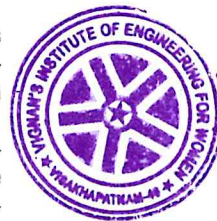
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(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :13/11/2021

(21) Application No.202141052126 A

(43) Publication Date : 26/11/2021

(54) Title of the invention : A PORTABLE SYSTEM AND METHOD FOR CREATING A VIRTUAL ENVIRONMENT USING IOT

(51) International classification	:H04L0029080000, B62J0099000000, G09B0005020000, G08B0021020000, F16M0011180000
(86) International Application No Filing Date	:NA :NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number Filing Date	:NA :NA
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(57) Abstract :
The present invention relates to a portable system (200) and a method (700) for creating a virtual environment using IoT. A portable system (200) comprises a micro camera (210), a position sensor (220), a Global Positioning System (GPS) sensor (230), an eyeblink sensor (240), a microcontroller (250) and a battery (260). A software application (410) that runs on the computing device (400) receives the data from a cloud and the application allocates the pre-defined slots (510 and 520) on the display screen (500). The information from the cloud (300) is displayed on the slots (510 and 520) on the display screen. The live video stream is shown in the specific areas on the display screen (500). The system (200) and method (700) helps monitor the activeness of the remote participant in real-time based on the information received from the multiple sensors (220, 230 and 240).

No. of Pages : 31 No. of Claims : 10

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(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :06/11/2021

(21) Application No.202141050872 A

(43) Publication Date : 19/11/2021

(54) Title of the invention : DESIGN OF INTELLIGENT COMMUNICATED DISTILLATION SYSTEM TO PURIFY WATER

(51) International Classification	:C02F0001140000, C02F0001000000, C02F0001040000, B01D0001000000, C02F0001020000
(86) International Application No Filing Date	:NA :NA
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(57) Abstract :
Title: Design of intelligent communicated distillation system to purify water Water is a basic needfor survival ofhuman being across the globe.The contaminated water causes many diseases and ultimately decreases the life time of human beings. Hence there is a necessity to purify the water,even though many water purifiers are available, still it lacks intelligent decision during purification of water. Our aim is to design an intelligent communicated distillation system that can purify water from any source.This system is relatively cheap, portable, and energy efficient due to renewable solar energy. So, our goal is to efficiently produce clean drinkable water from solar energy conversion. Solar Distillation is an attractive process to produce portable water using free of cost solar energy. This energy is used directly for evaporating water inside a device usually termed a Solar Still. Solar stills are used in cases where rain, piped, or well water is impractical, such as in remote homes or during power outages.Distillation is one of many processes available for water purification, and sunlight is one of several forms of heat energy. To maintain standard PH values for purified water, it requires high coordination of intelligent decision and communication system. In this system, latest technologies such as IOT and Artificial Intelligence are incorporated. We designedIIOT Process unit that is used to monitor and maintain the PH values. IOT PH Unit is responsible for monitoring the PH Values and Intelligent PH Unit is responsible for trade-off in PH values to get a purified water at any time.

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

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

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(21) Application No.202141031755 A

(43) Publication Date : 16/07/2021

(54) Title of the invention : A System and Method for E-Mail Feedback in a Trusted Network using Non-Deterministic Methods & Tools

(51) International classification	:H04L0029060000, H04L0012580000, H04L0009320000, H04L0029080000, H04L0001060000	(71)Name of Applicant : 1)Dr.L.Thomas Robinson Address of Applicant :Assistant Professor, Department of Computer Science, Nanjil Catholic College of Arts and Science, kaliyakkavilai, Kanyakumari, Tamil Nadu, India. Pin Code:629153 Tamil Nadu India 2)Dr.Maddu.Kamaraju 3)Mr.Pilla Mohan Ganesh 4)Dr.K.R.N. Kiran Kumar 5)Ms.PremaLatha Velagapalli 6)Dr.G.Vasavi 7)Dr.Sushma Jaiswal 8)Mr.Tarun Jaiswal 9)Dr.J.Manoranjini 10)Dr.Rabinarayan Satpathy (72)Name of Inventor : 1)Dr.L.Thomas Robinson 2)Dr.Maddu.Kamaraju 3)Mr.Pilla Mohan Ganesh 4)Dr.K.R.N. Kiran Kumar 5)Ms.PremaLatha Velagapalli 6)Dr.G.Vasavi 7)Dr.Sushma Jaiswal 8)Mr.Tarun Jaiswal 9)Dr.J.Manoranjini 10)Dr.Rabinarayan Satpathy
(31) Priority Document No	:NA	
(32) Priority Date	:NA	
(33) Name of priority country	:NA	
(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	

(57) Abstract :
[030] The present invention discloses a system for E-mail feedback in a trusted network using Non-Deterministic methods and tools and method thereof. The system includes, but not limited to, a processing node with a user name configured to send authorized inbound messages to trusted networks; an authorized message having a trusted source encryption with the receiver feedback; a reporting status of the authorized message with processed feedback to process using Non-Deterministic methods and tools for processing the authorized message of the user. Further, the processing node with the user name is configured to generate non-deterministic data values corresponding to respective authorized message of the user. In addition, the non-deterministic data values are having multiple root hash values of a distributed hash tree infrastructure having as input the authorized message with a plurality of digital input records during a respective processing node transmission. Accompanied Drawing [FIG. 1]

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

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(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :22/12/2020

(21) Application No.202041055801 A

(43) Publication Date : 26/02/2021

(54) Title of the invention : METHOD FOR PROVIDING ENCRYPTED SECURE COMMUNICATIONS IN NETWORKED INTERNET OF THINGS (IOT) DEVICES

(51) International classification	:H04L0029060000, H04L0029080000, H04W0004700000, H04W0076100000, H04L0009300000	(71)Name of Applicant : 1)Dr. K. Vijaya Kumar Address of Applicant :Associate Professor, Department of Computer Science Engineering, Vignan's Institute of Engineering for Women,Visakhapatnam, Andhra Pradesh, India Andhra Pradesh India
(31) Priority Document No	:NA	2)Dr. Ajay B Gadicha
(32) Priority Date	:NA	3)Dr. Rahul Malik
(33) Name of priority country	:NA	4)Dr. Gouse Baig Mohammad
(86) International Application No Filing Date	:PCT// :01/01/1900	5)Dr. Kotari Sridevi 6)Dr. Vaishnavi Dharmalingam
(87) International Publication No	: NA	(72)Name of Inventor :
(61) Patent of Addition to Application Number Filing Date	:NA :NA	1)Dr. K. Vijaya Kumar 2)Dr. Ajay B Gadicha 3)Dr. Rahul Malik
(62) Divisional to Application Number Filing Date	:NA :NA	4)Dr. Gouse Baig Mohammad 5)Dr. Kotari Sridevi 6)Dr. Vaishnavi Dharmalingam

(57) Abstract :
The present invention relates to a method for providing encrypted secure communications in networked internet of things (IOT) devices. The objective of the present invention is to solve the problems in design of secure network for interface of the internet of things (IOT) devices with using an encrypted communication.

No. of Pages : 25 No. of Claims : 6

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(54) COMPUTER IMPLEMENTED METHOD AND A COMPUTER SYSTEM FOR DOCUMENT CLUSTERING AND TEXT MINING

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(72) Inventors: E. Laxmi Lydia, Andhra Pradesh (IN); A. Krishna Mohan, Andhra Pradesh (IN); K. Vijaya Kumar, Andhra Pradesh (IN)

(57) **ABSTRACT**

A computer implemented method for document clustering comprises receiving one or more documents via one or more input means, arranging the one or more documents into a term-document matrix using term frequency-inverse document frequency, removing and stemming of one or more common clutter/stop words from the one or more documents, extracting one or more features from the one or more documents using non-negative matrix factorization (NMF) and k means, determining one or more vectors based on the one or more features, implementing k-means clustering thereby iterating the one or more documents and the one or more features and clustering the one or more documents based on similarity between the extracted one or more features and the each of the one or more documents.

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(12) PATENT APPLICATION PUBLICATION
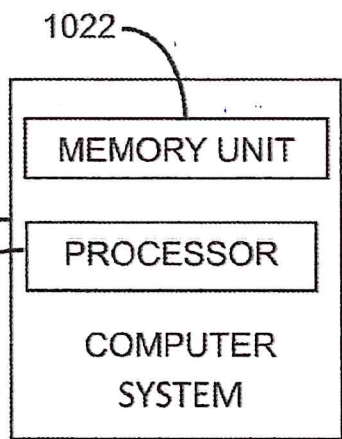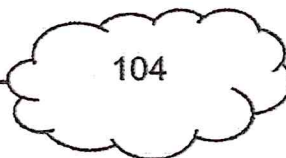
(19) INDIA

(22) Date of filing of Application :30/01/2021

(21) Application No.202141004114 A

(43) Publication Date : 05/02/2021

(54) Title of the invention : A System and Method for Data Mining in Datasets for mismatch Data Reduction

(51) International classification	:G06F 1/00	(71)Name of Applicant : 1)Mr.G.Kishore Address of Applicant :Associate Professor, Department of CSE, Rise Krishna Sai Prakasam Group of Institutions, Ongole, Andhra Pradesh, India. Pin Code: 523001 Andhra Pradesh India 2)Mr.Syed Imran Patel 3)Mr.D.Anil Kumar 4)Mr.K.Siva Krishna 5)Mr.Sudheer Babu Punuri 6)Mr.Pilla Mohan Ganesh 7)Dr.Thulluri Sudha 8)Mr.Srinivas Kalime 9)Ms.P.Aparna 10)Dr.Pappala Raju (72)Name of Inventor : 1)Mr.G.Kishore 2)Mr.Syed Imran Patel 3)Mr.D.Anil Kumar 4)Mr.K.Siva Krishna 5)Mr.Sudheer Babu Punuri 6)Mr.Pilla Mohan Ganesh 7)Dr.Thulluri Sudha 8)Mr.Srinivas Kalime 9)Ms.P.Aparna 10)Dr.Pappala Raju
(31) Priority Document No	:NA	
(32) Priority Date	:NA	
(33) Name of priority country	:NA	
(86) International Application No	:PCT//	
Filing Date	:01/01/1900	
( ) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
The Machine Learning is an application of Artificial Intelligence that provides a system that has an ability of automatically access the Data from the Datasets to learning and explicitly testing without fully programmed. The Data in groups or in Clusters present in the Dataset which are having similar features or attributes. The few Data Points in the Dataset are irrelevant Data points known as outlier points which are having their own features. These outlier irrelevant Data Points should be removed from the datasets to enhance the performance of the clustering and classification. The present invention disclosed herein is a System and Method for Data Mining in Datasets for mismatch Data Reduction comprising of: Dataset (101); K-Means Algorithm (102); Mismatch Data (103); and Reproducing Neural Network (104); uses Neural Networks to improve the accuracy and reduces the mean square error by reducing t' Mismatch Data reduction in the Datasets before classification. The Clustering the Data, detecting the irrelevant data can be carried w... the Reproducing Neural Network. The present invention disclosed here can have the capability of detecting the mismatch data outlier points in large as well as smaller datasets.

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

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(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :18/12/2020

(21) Application No.202041055099 A

(43) Publication Date : 25/12/2020

(54) Title of the invention : Flexible Spacesuit Hand Gloves

(51) International classification :B64G 6/00 (31) Priority Document No :NA (32) Priority Date :NA (33) Name of priority country :NA (86) International Application No :PCT// Filing Date :01/01/1900 (87) International Publication No : NA ( ) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA	(71)Name of Applicant : 1)Dr P Srinivasa Rao Address of Applicant :Associate Professor, Department of CSE, MVGR College of Engineering (Autonomous), Chintalavalasa, Vizianagaram, Andhra Pradesh, India. Andhra Pradesh India 2)Dr Nagesh Vadaparthi 3)Dr.Surya Prakasa Rao Reddi 4)Dr.Murali Krishna Namana 5)Dr Prakash Bethapudi 6)Dr.K.Selvani Deepthi 7)Dr.Kurumalla Suresh 8)Dr. Dadamiah PMD Shaik (72)Name of Inventor : 1)Dr P Srinivasa Rao 2)Dr Nagesh Vadaparthi 3)Dr.Surya Prakasa Rao Reddi 4)Dr.Murali Krishna Namana 5)Dr Prakash Bethapudi 6)Dr.K.Selvani Deepthi 7)Dr.Kurumalla Suresh 8)Dr. Dadamiah PMD Shaik 9)Dr. Kamalapuram Khaja Baseer

(57) Abstract :

Flexible Spacesuit Hand Gloves The present invention relates to flexible spacesuit hand gloves used for space applications. The hand gloves consist of a control electronics unit housed inside the hand gloves. The control electronics unit further comprises a myoelectric sensor (MES) and vibration sensors. The myoelectric sensor captures the electrical impulse produced in the hand. The electrodes present in the control electronics detect the myoelectric signals. The signals get amplified and activate the miniaturized five small dc electric motors located in each finger housing. On activation and with the help of tendon and pulley mechanism, the miniaturized electronic dc motors aid the spacesuit hand gloves to bend. The vibration sensor helps the astronaut to sense the amount of pressure applied to the object that is being touched.

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

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(54) Title of the invention : SYSTEM AND METHOD FOR FORCED HEAT TRANSFER WATER COOLING IN THERMOELECTRIC GENERATOR

(51) International classification	:H01L 35/30	(71)Name of Applicant : 1)Dr. K. Durga Syam Prasad Address of Applicant :Associate Professor, Department of EEE, Vignan™s Institute of Engineering for Women, Kapujaggaraju peta, Visakhapatnam, Andhra Pradesh, India. Pin Code: 530046 Andhra Pradesh India 2)Mr.Manas Ranjan Sahoo 3)Mr.CH Mohammad Akram 4)Dr.Sivasankara Raju R 5)Dr.Mahesh Mallampati 6)Mr.Nagaraj A Shet 7)Mr.J.Sathees Babu 8)Mr.S.Duraithilagar 9)Dr.S.Arunkumar 10)Mr.V.M.Jothiprakash (72)Name of Inventor : 1)Dr. K. Durga Syam Prasad 2)Mr.Manas Ranjan Sahoo 3)Mr.CH Mohammad Akram 4)Dr.Sivasankara Raju R 5)Dr.Mahesh Mallampati 6)Mr.Nagaraj A Shet 7)Mr.J.Sathees Babu 8)Mr.S.Duraithilagar 9)Dr.S.Arunkumar 10)Mr.V.M.Jothiprakash
(31) Priority Document No	:NA	
(32) Priority Date	:NA	
(33) Name of priority country	:NA	
(86) International Application No	:NA	
Filing Date	:NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

In Thermodynamics, a heat engine system converts the thermal or heat energy into mechanical energy. The distributed energy generation is the growing demand due its remarkable advantages in the aspects of the flexibility, reliability and minimum loss of transmission. One of distributed energy source, Thermoelectric Generator which is only the heat engine converting the distributed heat energy into electric power without any mechanical parts. The present invention disclosed herein is a System and Method for forced heat transfer Water Cooling in Thermoelectric Generator comprising of: AC Variable Transformer (101); Heat Spreader (102); Cooling Jacket (103); Thermoelectric Generator (104); Load (105); converts heat into electrical energy without any mechanical or moving parts by the forced heat transfer Water Cooling. The good conducting materials such as aluminum, Copper and Gold can be used in the invention disclosed to use the invention in the implantable devices in medical applications.

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

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(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :04/11/2020

(21) Application No.202041048086 A

(43) Publication Date : 13/11/2020

(54) Title of the invention : CONVERSION OF SLIDING MODE CONTROLLER TO GRID CONNECTED PV SYSTEM FOR BOOSTING THE POWER FOR INVERTER

(51) International classification	:H02J 3/38	(71)Name of Applicant :
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		  3)Dr.Gudipudi Nageswara Rao
		  4)Dr.J.Sivavara Prasad
		  5)Mr.P.Veera Manikandan
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		  7)Dr.K.G.S.Venkatesan
		  8)Mr.V.M.Jothiprakash
		  9)Mr.Avinash Vujji
		  10)Dr.K.Durga Syam Prasad
		(72)Name of Inventor :
		  1)Dr.K.Ramalingeswara Prasad
		  2)Mr.Mavuri Sri Suresh
		  3)Dr.Gudipudi Nageswara Rao
		  4)Dr.J.Sivavara Prasad
		  5)Mr.P.Veera Manikandan
		  6)Mr.E.Fantin Irudaya Raj
		  7)Dr.K.G.S.Venkatesan
		  8)Mr.V.M.Jothiprakash
		  9)Mr.Avinash Vujji
		  10)Dr.K.Durga Syam Prasad

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

(57) Abstract :
The Grid connected Photovoltaic (PV) system is invented and the control technique of solar system with Three Phase Grid Connection is done by Sliding mode controller. The present invention disclosed here in is Conversion of Sliding Mode Controller to Grid Connected PV System for Boosting the Power for Inverter comprising of: Photovoltaic System (201); Boost Converter (202); Pulse Width Modulation Control (203); Three Phase Voltage Source (204); Sliding Mode Controller (205); Grid (206); RL Load (207); improve source side power and control harmonics at the grid side current. The converter has interfaced between the generated PV arrays to three phase RL load with three phase grid. The Sliding Mode Control method in the invention making the system in stable, and which performs the system robust quite. The converter is connected to the input side voltage source inverter to step up the generated PV array voltage. Three phase inverter is using sliding mode control to provide switching signals, and control the transferred active power to grid system and load.

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

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(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :28/10/2020

(21) Application No.202041046908 A

(43) Publication Date : 06/11/2020

(54) Title of the invention : EFFICIENT ENERGY FLOATING POINT MULTIPLIER UNIT USING MULTI THRESHOLD DUAL SPACER DELAY INSENSITIVE APPROACH

(51) International classification	:H04L 29/08	(71)Name of Applicant :
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(31) Priority Document No	:NA	Address of Applicant :Department of ECE, Vignan€™s
(32) Priority Date	:NA	Institute of Engineering for Women, Kapujaggarajupeta,
(33) Name of priority country	:NA	Visakhapatnam, Andhra Pradesh – 530046 Andhra Pradesh India
(86) International Application No	:NA	(72)Name of Inventor :
Filing Date	:NA	1)Sudhakar Jyothula
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :
The present invention provides a IEEE-754 double precision Floating Point Multiplication (DP-FPM) asynchronous Multi-Threshold Dual Spacer Dual Rail Delay Insensitive Logic (MTD3L) circuit controlled by two sleep signals designed with various self-timed circuits such as CMOS logic, Multi-Threshold Null Convention Logic (MTNCL) and Multi-Threshold Dual Spacer Dual Rail Delay Insensitive Logic (MTD3L). These logics are concerned in dual/quad rail style under delay-insensitive timing approaches, but mostly dual rail encoding is preferable due to less logic complexity. The asynchronous DP-FPM design with MTD3L approach provides better performances in terms of delay and energy. The processing of floating point multiplier consists three steps €" pre-processing, arithmetic calculation, post-processing. The pre-processing progress is to represent the floating point number in IEEE-754 standards and arithmetic calculation progress is to compute their respective computation. The post-processing includes rounding process, normalization process, but this paper not examines the progress due to concern of high-range applications.

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

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(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of filing of Application :30/10/2020

(21) Application No.202041047385 A

(43) Publication Date : 06/11/2020

(54) Title of the invention : CONVERSION BASED FAULT IDENTIFIER IN THREE PHASE TRANSFORMER USING WAVELET TRANSFORM TECHNIQUE

(51) International classification	:H01F 30/12	(71)Name of Applicant : 1)Dr.K.Durga Syam Prasad Address of Applicant :Associate Professor, Department of EEE, Vignan€™s Institute of Engineering for Women, Visakhapatnam, Andhra Pradesh, India. Pin Code:530049 Andhra Pradesh India 2)Mr.Durgaprasad Bandaru 3)Mr. Kintali Manohar 4)Mrs.K.Sravanthi 5)Dr.K.Ramalingeswara Prasad 6)Mr.Bhargav Panchal 7)Dr.D.Vijendra Babu 8)Dr.K.G.S.Venkatesan 9)Mr.S.Muthuselvan 10)Mr.R.Karthikeyan (72)Name of Inventor : 1)Dr.K.Durga Syam Prasad 2)Mr.Durgaprasad Bandaru 3)Mr. Kintali Manohar 4)Mrs.K.Sravanthi 5)Dr.K.Ramalingeswara Prasad 6)Mr.Bhargav Panchal 7)Dr.D.Vijendra Babu 8)Dr.K.G.S.Venkatesan 9)Mr.S.Muthuselvan 10)Mr.R.Karthikeyan
(31) Priority Document No	:NA	
(32) Priority Date	:NA	
(33) Name of priority country	:NA	
(86) International Application No Filing Date	:NA :NA	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number Filing Date	:NA :NA	
(62) Divisional to Application Number Filing Date	:NA :NA	

(57) Abstract :
The Majority of the Power System failures occurring due to the faults in the transmission lines and the Transformers are the class of very expensive and vital components of the electric power system. The Present invention disclosed here is Conversion based Fault Identifier in Three Phase Transformer using Wavelet Transform Technique comprising of: Three Phase Voltage and Current Data (201); Wavelet Transform (202); Wavelet Energy (203); Feature Extraction (204); Random Forest (205); Fault Identification (206); Fault Location (207); uses Wavelet Transform as basis for identifying the faults in the Three Phase Transformer. Wavelet convert t   d fault line identifier disclosed here to provide security for serial capacitor remunerated three phase transmission line. Three phase current measured in those transfer area of a transmission line will be transformed utilizing wavelet convert with Db4 as mother wavelet for accurate fault classification.

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

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