PATENTS

A.Y.2020-2021

Number of Patents: 22

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :16/05/2020

(21) Application No.202041020749 A
(43) Publication Date : 05/06/2020

(54) Title of the invention : METHOD FOR HEART-DISEASES CLASSIFICATION BASED ON ECG IMAGE ANALYSIS THROUGH DEEP LEARNING MODEL

(51) International classification	:A61B0005000000, G06K0009620000, G06N0003080000, G06K0009460000, G06N0020000000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

(71)**Name of Applicant :**
1)Dr. K V Ranga Rao
Address of Applicant :Professor,Head of CSE Department,Neil Gogte Institute of Technology, Uppal, Hyderabad Telangana India
2)Dr. K Srinivas
3)Dr. Ch Ramesh Babu
4)V.Sridhar
(72)**Name of Inventor :**
1)Dr. K V Ranga Rao
2)Dr. K Srinivas
3)Dr. Ch Ramesh Babu
4)V.Sridhar

(57) Abstract :
The present invention is related to a computer implemented method for heart-diseases classification based on electrocardiograph (ECG) image analysis through a deep learning model. The objective of the present invention is to solve the problems in the prior art related to adequacies in technologies for identification and classification of the heart diseases based on the ECG image processing .

No. of Pages : 23 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :19/07/2020

(21) Application No.202041030762 A
(43) Publication Date : 31/07/2020

(54) Title of the invention : METHOD OF SYNTHESIZING TUNGSTEN-RHENIUM σ-PHASE ALLOY POWDER

(51) International classification	:A61L 31/02
(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

(71)**Name of Applicant :**
1)RUDDARRAJU SURYANARAYANA RAJU
Address of Applicant :C/O Electronics and Communication Engineering Department, Geethanjali College of Engineering and Technology, Cheeryal Village, Keesar Mandal, Medchal District. Telangana, India- 510301 Telangana India
(72)**Name of Inventor :**
1)RUDDARRAJU SURYANARAYANA RAJU
2)MATANGI ARUNA BHARATHI

(57) Abstract :
METHOD OF SYNTHESIS OF TUNGSTEN-RHENIUM S-PHASE ALLOY POWDER ABSTRACT Embodiments of the present disclosure relate to a method of preparing a homogeneous distributed tungsten (W)-rhenium (Re) -phase alloy fine powder. The method comprises mixing W powder and Re powder in a concentrated hydrogen peroxide (H2O2) and heating the mixed power at a predefined temperature. Also, the method comprises placing the heated mixed power in a water bath to regulate an exothermic reaction and drying the regulated exothermic reaction product using vacuum drying technique. Further, the method comprises milling the dried product to obtain a finely divided power. Furthermore, the method comprises firing the finely divided powder in a hydrogen atmosphere to obtain the s-phase alloy powder having a homogeneous distribution of constituent elements W and Re. Figure 1

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

PRINCIPAL
Geethanjali College of Engg. and Tech.
Cheeryal (V), Keesara (M), Medchal Dist.(T.S.)-501 301.

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :13/08/2020

(21) Application No.202041034753 A
(43) Publication Date : 04/09/2020

(54) Title of the invention : A UTILITY BASED ON SPEECH ENABLE INTERACTIVE VOICE RESPONSE (SEIVR) FOR PROVIDING ONLINE MARKET PLACE FOR FARMERS FOR SELLING OF FARM PRODUCE

(51) International classification	:G10L15/08	(71)**Name of Applicant :**
(31) Priority Document No	:NA	**1)Dr. Mohan.D**
(32) Priority Date	:NA	Address of Applicant :Professor, ECM Dept, Sreenidhi
(33) Name of priority country	:NA	Institute of Science &Technology, Hyderabad, INDIA Telangana
(86) International Application No	:NA	India
Filing Date	:NA	**2)Dr.K. Anitha Sheela**
(87) International Publication No	: NA	**3)Dr. P. Sudhakar**
(61) Patent of Addition to Application Number	:NA	(72)**Name of Inventor :**
Filing Date	:NA	**1)Dr. Mohan.D**
(62) Divisional to Application Number	:NA	**2)Dr.K. Anitha Sheela**
Filing Date	:NA	**3)Dr. P. Sudhakar**

(57) Abstract :
A mobile based application with Indian language speech recognition module for online market place for farmers. The application allows farmers to sell their products with voice search system. It should reach more than 90 per cent accuracies for both real-time and non-real-time scenario. It has been observed that this app performs well for isolated word queries in noisy field conditions. The speech recognition accuracy is higher for male speaker and normally it is lower for female speakers. Results on the collected data are shown in the tables. This work is carried out on same speech data set for both the methods and we can observe the assessment results of the accuracies is somewhat higher and rejection rates are lower for CMU™s Sphinx as it is non-real time setup and other one is real-time environment. which is to be expected. Thus, this tool can enable farmers stand gained in Agri business.

No. of Pages : 11 No. of Claims : 4

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :22/08/2020

(21) Application No.202041036196 A
(43) Publication Date : 04/09/2020

(54) Title of the invention : ENERGY AUDITING FOR IOT SYSTEM SECURITY BY DEEP LEARNING CONVOLUTION NEURAL NETWORK

(51) International classification :G06N 3/08
(31) Priority Document No :NA
(32) Priority Date :NA
(33) Name of priority country :NA
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

(71)**Name of Applicant :**
1)Mr.M V Pathi Amudalapalli
Address of Applicant :Assistant Professor, Department of ECE, Vishnu Institute of Technology, Bhimavaram, Andhra Pradesh, India. Pin-534201. Andhra Pradesh India
2)Mr.Prabira Kumar Sethy
3)Mr.Ch Mohammad Akram
4)Mr.Gundala Sunil Dayakar
5)Mr.Subramanyam kunisetti
6)Dr. Arun Sadanand Tigadi
7)Mr.Sanket Raval
8)Mrs.Seelaboyina Radha
9)Dr.G.Anandbabu
10)Mr. Nagarjuna Reddy Gujjula
(72)**Name of Inventor :**
1)Mr.M V Pathi Amudalapalli
2)Mr.Prabira Kumar Sethy
3)Mr.Ch Mohammad Akram
4)Mr.Gundala Sunil Dayakar
5)Mr.Subramanyam kunisetti
6)Dr. Arun Sadanand Tigadi
7)Mr.Sanket Raval
8)Mrs.Seelaboyina Radha
9)Dr.G.Anandbabu
10)Mr. Nagarjuna Reddy Gujjula

(57) Abstract :
IOT (Internet of Things) devices are small devices which can be located at any place and then this devices will sense data and send to require destination by using internet connections. This devices are not monitored by humans and can be tampered physically (manipulating internal parts to sense wrong data or to consume heavy energy) and it can be attacked using cyber technique such as DOS (denial of service). In dos technique malicious IOT can send huge amount of request to genuine neighbour or destination IOT which can lead to overheating of genuine device and it will be busy in reading huge request data and raise DOS error to other devices. To detect physical and cyber-attack, energy auditing technique by Machine Learning Convolutional Neural Network introduced. In this technique if any physical alteration done to IOT devices present in IOT system then huge amount of power consumption occurs and whenever any cyber DOS attack occurred then IOT devices present in IOT system get overheating which lead to more energy consumption. By auditing IOT devices energy consumption behaviour, we can detect attacks/anomalies in IOT system. To detect such attacks, we train Deep Learning Convolution Neural Network with past data which contains normal and attack energy consumption. After building model we will monitor/audit IOT energy consumption and then apply deep learning model to predict behaviour. If deep learning model predict abnormal energy consumption then it will predict that IOT device as under attack.

No. of Pages : 13 No. of Claims : 3

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :05/10/2020

(21) Application No.202041043102 A
(43) Publication Date : 09/10/2020

(54) Title of the invention : METHOD FOR DETECTING HEALTH CONDITION IN PLANTS USING AN AERIAL DEVICE BASED ON DEEP LEARNING APPROACH

(51) International classification :A61B 5/00
(31) Priority Document No :NA
(32) Priority Date :NA
(33) Name of priority country :NA
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

(71)**Name of Applicant :**
1)CHALLAGUNDLA RAMESH BABU
Address of Applicant :Professor, Department of CSE, Geethanjali College of Engineering and Technology, Cheeryala, Keesara Medchal Dist, Keesara, Telangana, India 501301 Telangana India
2)DAMMAVALAM SRINIVASA RAO
3)VANGIPURAM SRAVAN KIRAN
4)RAJASEKHAR NUVVUSETTY
5)LALITH BHARADWAJ BARU
(72)**Name of Inventor :**
1)CHALLAGUNDLA RAMESH BABU
2)DAMMAVALAM SRINIVASA RAO
3)VANGIPURAM SRAVAN KIRAN
4)RAJASEKHAR NUVVUSETTY
5)LALITH BHARADWAJ BARU

(57) Abstract :
ABSTRACT Embodiments of the present disclosure relate to a system and method for detecting health condition of a plantation. The system comprises an aerial device and a computing device. The aerial device comprising an image sensor, a navigation unit and a first transceiver. The image sensor captures a plurality of images of the plantation. The navigation unit navigates the aerial device through the plantation. The first transceiver transmits the captured plurality of images. The computing device comprising a second transceiver, a processing unit, a tuning unit and an optimize and evaluate unit (OEU). The second transceiver receives the captured plurality of images and the corresponding GPS tags. The processing module to process the captured plurality of images to generate processed images. The tuning unit to tune the processed images to obtain a model. The OEU optimizes the model by generating hyper-parameters, which are evaluated to detect the health condition of plantation. Figure 2

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

PRINCIPAL
Geethanjali College of Engg. and Tech.
Cheeryal (V), Keesara (M), Medchal Dist.(T.S.)-501 301.

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :25/09/2020

(21) Application No.202041041817 A
(43) Publication Date : 09/10/2020

(54) Title of the invention : AUTOMATED QUANTIFICATION SYSTEM FOR TISSUE IN NON CONTRAST CT IMAGES USING DEEP LEARNING

(51) International classification :G06T7/0012
(31) Priority Document No :NA
(32) Priority Date :NA
(33) Name of priority country :NA
(86) International Application No :NA
Filing Date :NA
(87) International Publication No : NA
(61) Patent of Addition to Application Number :NA
Filing Date :NA
(62) Divisional to Application Number :NA
Filing Date :NA

(71)**Name of Applicant :**
1)Mrs.Seelaboyina Radha
Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Geethanjali College of Engineering and Technology, Hyderabad, Telangana, India. Pin Code-501301 Telangana India
2)Mr.Erukala Mahender
3)Mr.P.Nagaraj
4)Mr.Rambabu Atmakuri
5)Mr.A.Prakash
6)Mrs.Annavarapu Mahalakshmi
7)Mrs.Bigul Sunitha Devi
8)Mrs.Bethala Shirisha
9)Mr.Hazari Venkata Ramana Rao
10)Mrs.B Pravallika
(72)**Name of Inventor :**
1)Mrs.Seelaboyina Radha
2)Mr.Erukala Mahender
3)Mr.P.Nagaraj
4)Mr.Rambabu Atmakuri
5)Mr.A.Prakash
6)Mrs.Annavarapu Mahalakshmi
7)Mrs.Bigul Sunitha Devi
8)Mrs.Bethala Shirisha
9)Mr.Hazari Venkata Ramana Rao
10)Mrs.B Pravallika

(57) Abstract :
Non-Contrast Computer Tomography (CT) imaging is commonly used invasive technique to rule out Cardiovascular Diseases. Calcified Atherosclerotic Plaque, Epicardial and Thoracic Adipose Tissue in the coronary arteries are the leading cause of Cardiovascular Diseases, can be known by the Non-Contrast Computer Tomography (CT) images. The Present invention discloses the Fully Automated Quantification System for Tissue in Non Contrast CT Images using Deep Learning comprising of: Input Image (402); Pre-Processing (403); Segmentation (406); Convolutional Neural Network (CNN) (408); Performance (412); provides a reliable method of Risk Assessment with time saving. The invention disclosed here is Automated Quantification System for Tissue in Non Contrast CT Images using Deep Learning provides the Accuracy of 94.37%, Sensitivity of 94.45%, and Specificity of 99.82% with 2.52 seconds time elapsed.

No. of Pages : 14 No. of Claims : 4

PRINCIPAL
Geethanjali College of Engg. and Tech.
Cheeryal (V), Keesara (M), Medchal Dist.(T.S.)-501 301.

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :09/12/2020

(21) Application No.202041053479 A
(43) Publication Date : 18/12/2020

(54) Title of the invention : DESIGN AND FABRICATION OF ELECTRIC SMART BIKE WITH VOICE RECOGNITION

(51) International classification	:H02J7/1407
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

(71)**Name of Applicant :**
1)Dr.Radhika Dora
Address of Applicant :Professor, Department of EEE Geethanjali College of Engineering and Technology, Cheeryal Village, KeesaraMandal, Hyderabad, Telangana- 501301 Telangana India
2)Duvvuru. Saritha
3)Dr. Ananda babu J
4)Suhas K C
5)Anitha K
6)Dr. D.S.Naga Malleswara Rao
7)Dr.Idamakanti Kasireddy
8)Dr.Addanki Purna Ramesh
9)Suman Tenali
10)Kesava Vamsi Krishna K V
11)Dr.Anand J Dhas
(72)**Name of Inventor :**
1)Dr.Radhika Dora
2)Duvvuru. Saritha
3)Dr. Ananda babu J
4)Suhas K C
5)Anitha K
6)Dr. D.S.Naga Malleswara Rao
7)Dr.Idamakanti Kasireddy
8)Dr.Addanki Purna Ramesh
9)Suman Tenali
10)Kesava Vamsi Krishna K V
11)Dr.Anand J Dhas

(57) Abstract :
Abstract An electric smart bike is portrayed and incorporates a voice recognition sense air speed at the bike, an electric engine to give intention power to the bike, and a regulator operatively associated with the engine, the regulator to control the electric engine utilizing the speed sensed by the air speed sensor. The regulator incorporates a set electric-engine boundary for the yield intensity of the engine. The electric-engine boundary can be bike speed. The regulator can likewise utilize ground tendency to decide the ability to be yield by the engine to help with driving the bicycle. A smart bike technique for deciding a client movement incorporate or characterize a majority of pattern marks, every standard mark relating to a sort of client action and having information shaped from a first information speaking to a differing static electric field and a subsequent information speaking to movement. Information receptive to a changing static electric field is gotten from a first sensor, and information receptive to movement is acquired from a subsequent sensor. The primary information is joined with the subsequent information, and the client action is distinguished dependent on a correlation of the consolidated first and second information with the majority of pattern marks. The regulator can utilize ground tendency to decide the ability to be yield by the engine to charge a battery in the bicycle. The regulator can set the intensity of engine help to be more prominent in a more noteworthy headwind than in a lighter headwind. The regulator utilizes rider weight and rider stature as boundaries for controlling the engine.

No. of Pages : 10 No. of Claims : 4

PRINCIPAL
Geethanjali College of Engg. and Tech.
Cheeryal (V), Keesara (M), Medchal Dist.(T.S.)-501 301.

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :30/12/2020

(21) Application No.202041057280 A
(43) Publication Date : 26/02/2021

(54) Title of the invention : ARTIFICIAL INTELLIGENCE-BASED CONTROLLER FOR BLDC MOTOR TO ACHIEVE PULSATILITY FOR VADS AND TAHS

(51) International classification	:A61M0001120000, A61M0001100000, H02P0006182000, A61N0001390000, H02P0006170000
(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

(71)**Name of Applicant :**
1)Anil Kumar Puppala
Address of Applicant :PROFESSOR DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING GEETHANJALI COLLEGE OF ENGINEERING AND TECHNOLOGY, CHEERYAL, HYDERABAD, INDIA Telangana India
2)Sonnati Venkateshwarlu
3)K Surya Venkata Phani Kumar
(72)**Name of Inventor :**
1)Anil Kumar Puppala
2)Sonnati Venkateshwarlu
3)K Surya Venkata Phani Kumar

(57) Abstract :
ABSTRACT ARTIFICIAL INTELLIGENCE-BASED CONTROLLER FOR BLDC MOTOR TO ACHIEVE PULSATILITY FOR VADS AND TAHS The present disclosure pertains to a system for achieving pulsatility in implantable and extracorporeal Total artificial heart and Ventricular Assist Devices by pulsating the speed of the Brush less DC motor (BLDC). Control of BLDC motor™s speed is achieved by different methods. The devices comprises a Brush less DC motor and a pump. A speed controller (001) controls the speed of the motor based on the VI characteristics of the circuit. For achieving pulsatility in extracorporeal devices, a simple Proportional Integral & hysteresis control (002) based chopper (003) fed control for hall sensor type BLDC motor is used. The speed controlling is achieved by senor based approach through current control and sensorless approach through voltage control. Back EMF derived from line voltages (004) and its zero crossing detection (006) method is used for sensorless operation of BLDC motor. Fig.2. Block diagram of controller design

No. of Pages : 29 No. of Claims : 6

PRINCIPAL
Geethanjali College of Engg. and Tech.
Cheeryal (V), Keesara (M), Medchal Dist.(T.S.)-501 301.

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :19/02/2021

(21) Application No.202141007015 A
(43) Publication Date : 26/02/2021

(54) Title of the invention : ECO-FRIENDLY BLACKBOARD ERASER SYSTEM

(51) International classification	:B43L0021020000, B43L0001040000, B43L0021000000, B43L0021040000, A24F0047000000
(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

(71)**Name of Applicant :**
1)MAJETI ESWAR HEMANT
Address of Applicant :C/O Department of ECE, Geethanjali College of Engineering and Technology, Cheeryal (V), Keesara(M), Medchal District, Telangana, India 501301 Telangana India
2)OGIRALA VENKATA PANDU RANGA SIVAKUMAR
(72)**Name of Inventor :**
1)MAJETI ESWAR HEMANT
2)OGIRALA VENKATA PANDU RANGA SIVAKUMAR

(57) Abstract :
ECO-FRIENDLY BLACKBOARD ERASER SYSTEM ABSTRACT Embodiments of the present disclosure relate to a blackboard eraser system capable of automatically erasing writings on the black board. The blackboard eraser system comprising a blackboard body and an eraser unit. The eraser unit is mounted on the blackbody using one or more sliding tracks and associated one or more sliding rollers. The eraser unit comprises of a radio frequency (RF) transceiver, a motor driver, a suction mechanism and a control unit. The RF transceiver is configured to receive and transmit control commands. The motor driver configured with a shaft and pulley for the movement of the eraser unit. The suction mechanism, configured on the eraser unit attached to accumulate the chalk dust particles in to a storage bin. The control unit to control the movement of the eraser unit based on one or more commands received from a user.

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

PRINCIPAL
Geethanjali College of Engg. and Tech.
Cheeryal (V), Keesara (M), Medchal Dist.(T.S.)-501 301.

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :09/02/2021

(21) Application No.202141005563 A
(43) Publication Date : 26/02/2021

(54) Title of the invention : INTELLIGENT SYSTEM FOR OPERATION AND MAINTENANCE OF WASTE TREATMENT SYSTEMS

(51) International classification	:G06N0003040000, G06N0003080000, G06K0009620000, G06K0009000000, H04W0004800000
(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

(71)**Name of Applicant :**
1)Dr. P Lalitha Surya Kumari (Professor)
Address of Applicant :Department of Computer Science and Engineering, Koneru Lakshmaiah Education Foundation, Deemed to be University, Hyderabad, Telangana -500075 E-mail address: vlalithanagesh@gmail.com Andhra Pradesh India
2)Ms. Sailaja Pasupuleti (Research Scholar)
3)Dr. A Sree Lakshmi (Professor)
4)Ms. Purude Vaishali Narayanrao (Research Scholar)
(72)**Name of Inventor :**
1)Dr. P Lalitha Surya Kumari (Professor)
2)Ms. Sailaja Pasupuleti (Research Scholar)
3)Dr. A Sree Lakshmi (Professor)
4)Ms. Purude Vaishali Narayanrao (Research Scholar)

(57) Abstract :
ABSTRACT Our invention intelligent system for operation and maintenance of waste treatment systems* is a Waste management leads to the destruction of waste conducted by recycling and land filling. Deep learning and the Internet of things (IoT) help for an agile solution in classification and real-time data monitoring, respectively. This proposal reflects a capable architecture of the waste management system based on deep learning (part of AI) and IoT. The proposed model extracts a smart way to sort digestible and indigestible waste using a Convolutional Neural Network (CNN). CNN is a popular deep learning paradigm. The scheme also introduces an architectural design of a smart trash bin that utilizes a microcontroller with multiple sensors. The proposed method employs IoT and Bluetooth connectivity for data monitoring. IoT enables control of real-time data from anywhere while Bluetooth aids short-range data monitoring through an android application. The classification accuracy of the proposed architecture based on the CNN model is 95.3125% and the SUS (System Usability Scale) score is 86%. Also this smart system will be adjustable to household activities with real-time waste monitoring.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :11/03/2021

(21) Application No.202141010293 A
(43) Publication Date : 19/03/2021

(54) Title of the invention : VERTICAL-BELL LABS LAYERED SPACE-TIME ORTHOGONAL FREQUENCY DIVISION MULTIPLEXING MIMO SYSTEM FOR MULTI USER DETECTION

(51) International classification	:H04L0027260000, H04L0001000000, H04L0001060000, H04L0005000000, H04B0007060000
(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

(71)**Name of Applicant :**
1)Dr VIJAYA DURGA RAVVA
Address of Applicant :Associate Professor, Geethanjali College of Engineering and Technology (Autonomous), Cheeryal (V), Keesara (M), Medchal Dist., Telangana - 501 301, India Telangana India
(72)**Name of Inventor :**
1)Dr VIJAYA DURGA RAVVA

(57) Abstract :
This invention is meant for enhancing MIMO - OFDM with V-BLAST transceiver architecture that leverages technology for next-generation cellular communications. It bestows spatial multiplexing over multiple-antenna wireless communication systems leading to high SE and low energy consumption and low detection complexity. The invention considers reuse of technologies such as MIMO and OFDM as they are considered competent. It also considers reuse of V-BLAST architecture for improved performance. An Enhanced OFDM is designed to optimize data transmission over wireless media. MIMO-EOFDM is then integrated with V-BLAST architecture where MMSE is used for higher reliability. There is a mechanism in EOFDM using hybrid mapper that contributes to the efficiency in data transmission. It leads to low detection complexity and high BER performance. The novelty of the EOFDM is that there is hybrid approach that supports information bits to be conveyed implicitly using indices and number of active subcarriers and also modulated subcarriers. Embedding extra information bits besides the bits conveyed by M-ary constellation symbols is made possible. Thus Spectrum Efficiency (SE) is leveraged significantly when compared with other OFDM counterparts. The current invention is beneficial to many stakeholders such as wireless network operators, Original Equipment Manufacturers (OEMs), multimedia content providers who depend on wireless networks for content dissemination, general users of such applications, researchers and academia.

No. of Pages : 15 No. of Claims : 7

PRINCIPAL
Geethanjali College of Engg. and Tech.
Cheeryal (V), Keesara (M), Medchal Dist.(T.S.)-501 301.

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :26/03/2021

(21) Application No.202141013279 A
(43) Publication Date : 02/04/2021

(54) Title of the invention : ARCHITECTURAL CRYPTOGRAPHY WITH HIGH SECURE CORE

(51) International classification	:H04L0009060000, H04L0009080000, H01L0023000000, G06F0021760000, G06F0011070000
(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

(71)**Name of Applicant :**
1)Dr VIJAYA DURGA RAVVA
Address of Applicant :Associate Professor, Geethanjali College of Engineering and Technology (Autonomous), Cheeryal (V), Keesara (M), Medchal Dist, Telangana-501301, India Telangana India
2)SEKHAR M
(72)**Name of Inventor :**
1)Dr VIJAYA DURGA RAVVA

(57) Abstract :
The continuous increase in demand for security in electronic systems and communication systems which lacks a secure architecture has resulted in the need to provide cryptography architecture with high secure core. The hardware implementation of the cryptography core which incorporates multiple algorithms for security purpose was already developed but if the architecture is capable of switching between the algorithms used for encryption /decryption as controlled by the host computer dynamically, then the security over the data path will be increased by making the attempt for hacking too difficult. The switching between heterogeneous algorithms will also increase the confusion level. This invention has an architecture that implements three symmetric algorithms namely the standard AES, standard DES and proposed modified DES (MDES) algorithms. Representing these algorithms in the functional block level and also using the new concept of common S-Box, results in operations that are common to all the three algorithms, allows us to merge them in a single architecture and thus there is an area reduction of 14.5% in cryptography core with 2 S-Boxes rather than using 11 S-Box. The operation of this cryptography core is controlled by the control signals, selecting which algorithm to work at time, making it difficult to hack the information transferred through the data line. This invention benefits many stakeholders such as users and administrators of information systems, security practitioners, cloud users, cloud service providers and information systems built on cloud platforms besides researchers and academia.

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

PRINCIPAL
Geethanjali College of Engg. and Tech.
Cheeryal (V), Keesara (M), Medchal Dist.(T.S.)-501 301.

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :04/04/2021

(21) Application No.202141015878 A
(43) Publication Date : 09/04/2021

(54) Title of the invention : METHOD AND SYSTEM FOR SCEDULING SECONDARY USERS IN A COGNITIVE RADIO NETWORKS

(51) International classification	:H04W0016140000, H04W0072040000, C23C0014060000, H04W0072120000, H04L0005000000
(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

(71)**Name of Applicant :**
1)APPALA RAJU UPPALA
Address of Applicant :Associate Professor, Department of ECE, Geethanjali College of Engineering and Technology, Cheeryala, Keesara Medchal Dist, Keesara, Telangana, India 501301 Telangana India
2)CHINTHAGINJALA VENKATA NARASIMHULU
3)KODATI SATYA PRASAD
(72)**Name of Inventor :**
1)APPALA RAJU UPPALA
2)CHINTHAGINJALA VENKATA NARASIMHULU
3)KODATI SATYA PRASAD

(57) Abstract :
METHOD AND SYSTEM FOR SCEDULING SECONDARY USERS IN A COGNITIVE RADIO NETWORKS ABSTRACT An embodiment of the present disclosure is related, in general, to communication, exclusively to a method and system for scheduling a plurality of secondary users (SUs) in a cognitive radio network (CRN). The communication system comprises a processing unit, a memory, receiver, a scheduler and a transmitter. In an embodiment, the communication system 100 is a Base station or a Fusion Centre. The receiver receives sensed information from the SUs for using channel resources in the CRN for transmitting data. The processing unit determines unused states associated with a primary user in the CRN, said unused states is a frequency band is being used by a primary user (PU). The scheduler 108 schedules at least one SU to use one or more channel resources by allocating the frequency band during the unused state of the PU. Figure 15

No. of Pages : 30 No. of Claims : 9

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :31/03/2021

(21) Application No.202141014821 A
(43) Publication Date : 16/04/2021

(54) Title of the invention : METHOD OF SYNTHESIZING LINIXCU0.5-XMN1.5O4 NANOMATERIAL USING MICROWAVE-ASSISTED SOL-GEL TECHNIQUE FOR LITHIUM ION BATTERY CATHODE

(51) International classification	:H01M0004505000, B82Y0030000000, H01M0010052000, G01N0033543000, B01J0037000000
(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

(71)Name of Applicant :
1)Dr. MATHANGI ARUNA BHARATHI
Address of Applicant :Professor, Electrical and Electronics Engineering Department, Geethanjali College of Engineering and Technology, Cheeryal Village, Keesara Mandal, Medchal District, Telangana-510301, India. Telangana India
2)Dr. RUDDARRAJU SURYANARAYANA RAJU
3)Dr. MALAJI SUSHAMA
(72)Name of Inventor :
1)Dr. MATHANGI ARUNA BHARATHI
2)Dr. RUDDARRAJU SURYANARAYANA RAJU
3)Dr. MALAJI SUSHAMA

(57) Abstract :
Different compositions of nano-crystalline phase LiMn1.5Ni0.25Cu0.25O4 powder are synthesized using citric acid modified (CAM) microwave assisted sol-gel method. Structural characterision of synthesised product is carried out using powder X-ray diffraction (XRD). The results show that the Cu-Ni doped sample has a FD3M space group similar to that of undoped sample but has a smaller lattice parameter than that of the undoped LiMn2O4. Studies using thermal gravimetric analysis and differential thermal analysis (TGA-DTA) show that LiMn1.5Ni0.25Cu0.25O4 is found to be thermally stable due to low weight loss with a nano size particles. An electrochemical investigation shows that LiMn1.5Ni0.25Cu0.25O4 is effective due to very small particle size having identical morphology coupled with homogenity. These features are essential for obtaining high energy density with good reversibility needed for a battery application. The impedance spectroscopic studies at various temperatures ranges reveal low charge transfer resistance which is an added advantage to the present application. The current invention is benefitial to different companies interested in manufacturuing nanomaterials based batteries, researchers and academia.

No. of Pages : 17 No. of Claims : 8

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :30/03/2021

(21) Application No.202141014355 A
(43) Publication Date : 16/04/2021

(54) Title of the invention : METHOD OF FABRICATION OF MULTI-BEAM CATHODE PELLET USING EDM PROCESS

(51) International classification	:B23H0007260000, H01J0009040000, B23H0011000000, B23H0001000000, B23H0001020000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

(71)**Name of Applicant :**
1)Dr. Ruddarraju Suryanarayana Raju
Address of Applicant :Professor, Department of ECE, Geethanjali College of Engineering and Technology, Cheeryal (Village), Medchal (District), Telangana-510301, India. Telangana India
2)Dr. Ranjan Kumar Barik
(72)**Name of Inventor :**
1)Dr. Ruddarraju Suryanarayana Raju
2)Dr. Ranjan Kumar Barik

(57) Abstract :
A thermionic cathode comprises of an electron emitter button and a heater assembly. When the cathode is fitted into an electron gun of a microwave tube an electron beam of desired current and shape is produced. In place of a single beam cathode, a multi-beam cathode (MBC) is used to improve the gain of the tube. The present invention relates to a method of fabricating a multi-button cathode pellet by using an electric discharge machine (EDM) in which the cathode pellet is first machined and is subjected to EDM process using a specially fabricated electrode to generate multiple buttons as per the design. The precise shape and height of buttons are achieved by optimizing electrical current between the pellet and electrode and time duration of EDM operation. The axial alignment of buttons with respect to rest of the cathode assembly is achieved by a precise post machining technique. This invention is beneficial to the national and international companies working on development of microwave tubes.

No. of Pages : 19 No. of Claims : 5

PRINCIPAL
Geethanjali College of Engg. and Tech.
Cheeryal (V), Keesara (M), Medchal Dist.(T.S.)-501 301

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :31/03/2021

(21) Application No.202141014951 A
(43) Publication Date : 16/04/2021

(54) Title of the invention : A TOOL FOR CONVERTING TEXT TO BRAILLE SCRIPT TO EMPOWER READABILITY FOR BLIND PEOPLE

(51) International classification	:G09B0021000000, B41J0003407000, G09B0021020000, G10L0013000000, F21S0008000000
(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

(71)**Name of Applicant :**
1)Dr. Spandana Paramkusham
Address of Applicant :Associate Professor, Geethanjali College of Engineering and Technology, Cheeryal Village, Keesara Mandal, Hyderabad, Telangana-501301, India. Telangana India
2)Pooja Minna Ravindra
3)Abdullah Farhan Siddiqui
(72)**Name of Inventor :**
1)Dr. Spandana Paramkusham
2)Pooja Minna Ravindra
3)Abdullah Farhan Siddiqui

(57) Abstract :
The current invention is meant for converting text in an electronic file into its corresponding Braille representations. Such Braille representation of data is useful to blind people to read and understand alphabets and numbers. Servo motors play crucial role as part of this invention. Depending on the input the required servo motors will rotate 90 degrees from the normal surface and appear above the surface. Any person willing to read the file must touch these servo motors and sense the alphabet. It has required mechanisms, circuit board containing Arduino UNO, servo motors and jumper cables. This invention is useful for blind people as it converts text to Braille patterns. Besides it helps many stakeholders such as educational institutions for blind, researchers and academia.

No. of Pages : 13 No. of Claims : 6

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :08/04/2021

(21) Application No.202141016525 A
(43) Publication Date : 23/04/2021

(54) Title of the invention : SECURE COMPLEX EVENT PROCESSING IN IOT ENVIRONMENTS

(51) International classification	:H04L0029080000, H04L0029060000, G06N0020000000, G06Q0010100000, H04L0012240000
(31) Priority Document No	:NA
(32) Priority Date	:NA
(33) Name of priority country	:NA
(86) International Application No	:NA
Filing Date	:NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	:NA
Filing Date	:NA
(62) Divisional to Application Number	:NA
Filing Date	:NA

(71)**Name of Applicant :**
1)Dr. Rajesh Kumar Shrivastava
Address of Applicant :Associate Professor, Department of Computer Science and Engineering, Geethanjali College of Engineering and Technology, Cheeryal(V), Keesara(M), Medchal(Dt), Telangana, Hyderabad-501 301. Telangana India
2)Dr. Ramakanta Mohanty
3)Dr. Ch. Ramesh Babu
(72)**Name of Inventor :**
1)Dr. Rajesh Kumar Shrivastava
2)Dr. Ramakanta Mohanty
3)Dr. Ch. Ramesh Babu

(57) Abstract :
The current invention is meant for a framework towards secure complex event processing in IoT environments. The framework is based on a three-layered architecture besides a resilient server model for leveraging security, a complex event processing model for cloud computing environments and cache based security model which is based on flush and reload method. The invention is resilient against security issues while processing complex events associated with IoT workflows. It has several modules in order to realize the framework. The modules include server, data, action, event, rule and learning. There is server resilient model and cache based model based on push and reload method for monitoring anomalous and malicious activities associated with complex event processing associated with IoT use cases. This invention benefits different stakeholders such as users of IoT use cases, professionals working on IoT use cases, organizations associated with IoT implementations, security practitioners, researchers and academia.

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

PRINCIPAL
Geethanjali College of Engg. and Tech.
Cheeryal (V), Keesara (M), Medchal Dist.(T.S.)-501 301.

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :19/04/2021

(21) Application No.202141018064 A
(43) Publication Date : 30/04/2021

(54) Title of the invention : FUZZY MULTI-ATTRIBUTE DECISION MAKING, DATA ENVELOPMENT ANALYSIS AND MACHINE LEARNING TECHNIQUES TO RANK AND CLASSIFY WEB SERVICES

(51) International classification	:G06Q0010060000, G06N0003080000, H04L0029080000, G06N0005000000, G06F0016310000
(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

(71)**Name of Applicant :**
1)Dr. Ramakanta Mohanty
Address of Applicant :Professor, Department of Computer Science and Engineering, Geethanjali College of Engineering and Technology, Cheeryal (V), Keesara (M), Medchal (Dt), Telangana, Hyderabad-501 301, Telangana India
2)Dr. Ch. Ramesh Babu
3)Dr. Rajesh Kumar Shrivastava
(72)**Name of Inventor :**
1)Dr. Ramakanta Mohanty
2)Dr. Ch. Ramesh Babu
3)Dr. Rajesh Kumar Shrivastava

(57) Abstract :
The emergence of web services has introduced as a new way which provide on scope for exchange of information which is across the internet based and open internet standards and technologies by using of industry standards the web services are encapsulates as applications and publish the services. By using of web range of computing platforms, handled devices and appliances the services are delivers to the XML-based data on wire and exposed for using of internet which are dynamically located subscribed and accessed. As the distributed development process reuses existing web services, it is indispensable to have mechanisms to choose best ones. The current invention is meant for fuzzy multi-attribute decision making, data envelopment analysis and machine learning techniques to rank and classify web services. Inherent fuzziness present in the attributes that define the quality of a web service are identified and modified Fuzzy Multi Attribute Decision Making (FMADM) model is employed on QWS web services data to rank different web services in terms of their quality with respect to nine QoS attributes. In the modified FMADM model, BPNN is employed for yielding the weightages which are used in the FMADM part in the place of the traditional analytic hierarchy process (AHP). A modified DEA model is also used along with the modified FMADM model besides machine learning approach to arrive at ranking and classification of web services. It is beneficial to organizations that use distributed enterprise applications made up of third party web services, software professionals working on inter-operable applications besides researchers and academia.

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

PRINCIPAL
Geethanjali College of Engg. and Tech.
Cheeryal (V), Keesara (M), Medchal Dist.(T.S.)-501 301.

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :19/04/2021

(21) Application No.202141018076 A
(43) Publication Date : 30/04/2021

(54) Title of the invention : A FRAMEWORK FOR INTELLIGENT ASSESSMENT OF SENTIMENTS ON TWEETS OF INDIAN RAILWAYS

(51) International classification	:G06Q0050000000, G06N0020000000, G06F0040300000, G06F0016350000, G06Q0010100000
(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

(71)**Name of Applicant :**
1)Dr. Rakesh Kumar Donthi
Address of Applicant :Associate Professor, Department of CSE, Geethanjali College of Engineering and Technology, Cheeryal, Hyderabad,Telangana, Pin-501301 Telangana India
2)Dr. K. Srinivas
3)V. Shiva Narayana Reddy
4)Audi Reddy Kayithi
(72)**Name of Inventor :**
1)Dr. Rakesh Kumar Donthi
2)Dr. K. Srinivas
3)V. Shiva Narayana Reddy
4)Audi Reddy Kayithi

(57) Abstract :
Indian Railways is one of the largest railways in the world. Every day it helps several thousands of passengers to reach their destinations. Besides it is cheaper alternative to a common man in India. Due to emergence of social media and wide usage of the same by passengers, obtaining social feedback can help Indian Railways to improve its services. Towards this end, the current invention is meant for building a framework for intelligent assessment of sentiments on tweets of Indian Railways. It is machine learning based and latent topic aspect modelling based approach that helps in assessing the performance of Indian Railways in terms of customer (passengers) satisfaction and their sentiments. The framework has provision for efficient pre-processing using NLP techniques, representation of data effectively using topic aspect modelling and sentiment classification suing machine learning algorithms. Besides, the invention has provision to store sentiment details train wise in an RDF schema that is suitable for knowledge management. It supports SPARQL queries so as to help users (officials of Indian Railways) to ascertain the social feedback given by passengers of Indian Railways in order to take strategic decisions to improve performance of Indian Railways. The stakeholders who are benefited from the current invention include officers of Indian Railways, Railways Ministry and management of Indian Railways, passengers of Indian Railways, sentiment analysis practitioners, researchers and academia.

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

PRINCIPAL
Geethanjali College of Engg. and Tech.
Cheeryal (V), Keesara (M), Medchal Dist.(T.S.)-501 301.

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :19/04/2021

(21) Application No.202141018039 A
(43) Publication Date : 30/04/2021

(54) Title of the invention : SMART AND TRANSPARENT MILK COLLECTION AND AUTOMATED PRICING SYSTEM FOR DAIRY FARMING

(51) International classification	:G01N0033040000, A01J0005013000, A61M0001060000, G06Q0050020000, H04L0029080000
(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

(71)**Name of Applicant :**
1)Dr.S.Vallisree
Address of Applicant :Associate Professor, Department of ECE, Geethanjali College of Engineering and Technology, Cheeryal Village, Keesara Mandal, Hyderabad, Telangana 501301, Telangana India
2)A.Tejasree
3)Dr.Saritha Saladi
4)Dr.P.Spandana
(72)**Name of Inventor :**
1)Dr.S.Vallisree
2)A.Tejasree
3)Dr.Saritha Saladi
4)Dr.P.Spandana

(57) Abstract :
The current invention is meant for automated corruption free milk parameter monitoring and collection with paperless receipt. It realizes a smart and transparent milk collection and automated pricing system for dairy farming. It has technology-driven mechanisms to achieve this. It makes use of different sensors like pH sensor, weight sensor and LDR sensor besides RFID tags, RFID reader, 2 DC motors and LCD display. The system is equipped with Raspberry pi Uno which provides interfacing with sensors and other components involved in the system. The invention has integration with cloud computing in order to reap its benefits. It can be used for collecting milk and measuring the quality of milk besides computing price. It benefits to many stakeholders such as milkman, farmers associated with buffalo farming, industries associated with milk business, researchers and academia. Especially, it makes the milk collection system transparent and stops milk industry to exploit farmers or milkmen.

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

PRINCIPAL
Geethanjali College of Engg. and Tech.
Cheeryal (V), Keesara (M), Medchal Dist.(T.S.)-501 301.

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :29/04/2021

(21) Application No.202141019699 A
(43) Publication Date : 07/05/2021

(54) Title of the invention : IOT ENABLED AIR COOLER (IOT E-A.C)

(51) International classification	:H04L0029080000, H04W0004800000, H05B0047190000, G05B0019418000, G05B0015020000
(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

(71)**Name of Applicant :**
1)Mr. GONDU VYKUNTA RAO
Address of Applicant :Student, M.Tech, Power Systems, EEE, Acharya Nagarjuna University College of Engineering & Technology, Guntur-522510, Andhra Pradesh, India. Andhra Pradesh India
2)Dr. MATHANGI ARUNA BHARATHI
3)Mr. SUVVARI CHAITANYA SANTOSH KUMAR
4)Mr. PEDADA CHANDRA SEKHAR
(72)**Name of Inventor :**
1)Mr. GONDU VYKUNTA RAO
2)Dr. MATHANGI ARUNA BHARATHI
3)Mr. SUVVARI CHAITANYA SANTOSH KUMAR
4)Mr. MULPURU GOPI
5)Dr. GUNDAVARAPU VENKATA NAGESH KUMAR
6)Mr. PEDADA CHANDRA SEKHAR
7)Ms. KOLAVENNU GOWTHAMI
8)Mr. SAINADH SINGH KSHATRI

(57) Abstract :
The current invention is an IoT enabled air cooler that can be operated from a remote place using mobile interface. It can fit into different IoT use cases such as smart home and smart city. The IoT enabled air cooler is implemented with an application including conditioning and lighting control is using Node MCU embedded system microcontroller. Ardunio Pro Mini and Blynk iOS/Bluetooth along with a mobile app/Android interface is used. It has sensing module which is able to sense Temperature (T) and Humidity (H). The speed of cooler changes according to changes of T&H as the cycle repeated for different values of T&H. One more advantage of sensors is that they can automatically refill the water according to water level requirements. The overall function is achieved by interfacing of various sensors to Ardunio, and the commands which send back to Arduino based on sensing data as the sophisticated environment is equipped with support for desired operations. The current invention is beneficial to many stakeholders such as air cooler manufacturers, air cooler users, developers of IoT use cases such as smart home and smart city besides researchers and academia.

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

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :31/03/2021

(21) Application No.202141015257 A
(43) Publication Date : 11/06/2021

(54) Title of the invention : MACHINE LEARNING BASED IDENTIFICATION OF TUMOR USING SIANLM AND MFCM ALGORITHM FROM MRI BRAIN IMAGES

(51) International classification	:A61B0005000000, G06T0007000000, G06K0009620000, G16H0050200000, G01R0033560000
(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

(71)**Name of Applicant :**
1)Dr SALADI SARITHA
Address of Applicant :Associate Professor, Dept of ECE, Geethanjali College of Engineering and Technology, Hyderabad, Telangana-501301, India Telangana India
2)Dr SPANDANA PARAMKUSHAM
3)Dr S VALLI SREE
(72)**Name of Inventor :**
1)Dr SALADI SARITHA
2)Dr SPANDANA PARAMKUSHAM
3)Dr S VALLI SREE

(57) Abstract :
This invention is pertaining to detection of brain tumor provided MRI brain images as input. It realizes a framework with desired mechanisms and algorithms for automatic detection of brain tumors. Provided MRI images of brain as input, the framework has different algorithms to arrive at the tumor detection decision with higher level of accuracy. This invention has an improved FCM for soft clustering of MRI image data in order to identify tumors, with the help of feature extraction techniques to improve the performance by reducing computational and time complexity significantly. This invention is also equipped with a multi-model approach towards noise removal as part of SIANLM algorithm. Feature extraction with both PCA and DWT improves tumor detection accuracy. It provides solution to the problem of brain tumor detection with an automated approach that has utility and can be used in Clinical Decision Support Systems (CDSSs) in the real word to save the resources, energy and time of both patients and the clinicians. It benefits to many stakeholders such as patients, doctors, healthcare professionals, healthcare units, researchers and academia.

No. of Pages : 15 No. of Claims : 7