

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202041005679 A

(19) INDIA

(22) Date of filing of Application :10/02/2020

(43) Publication Date : 24/04/2020

(54) Title of the invention : COMPUTER-IMPLEMENTED SYSTEM FOR RECOGNIZING SPEECH USING ARTIFICIAL NEURAL NETWORKS

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(31) Priority Document No	:NA	
(32) Priority Date	:NA	
(33) Name of priority country	:NA	
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(57) Abstract :

Exemplary embodiments of the present disclosure are directed towards a computer-implemented system for recognizing speech using artificial neural networks, comprising: a speech recognition module comprises a wavelet analysis module configured to perform wavelet analysis by using artificial neural networks to recognize the speech of one or more users, the wavelet analysis module configured to extract one or more features and identifies one or more features from one or more words of the speech; and a computing device configured to read voice data from a data acquisition card, the data acquisition card configured to process speech (voice signals) received through a microphone and convert the resulting samples into digital numeric values.

No. of Pages : 30 No. of Claims : 3

(54) Title of the invention : HEXAGONAL SPLIT-RING RESONATOR BASED ULTRA-WIDEBAND LPDA

(51) International classification	:G01S0013880000, H01Q0011100000, H01Q0021060000, H01Q0009280000, H01Q0009040000	(71)Name of Applicant : 1)Dr. T. Pavani Address of Applicant :Department of Electronics and Communication Engineering, Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad-501510, Telangana, India Telangana India
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(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 :

ABSTRACT: Title: Hexagonal Split-Ring Resonator Based Ultra-wideband LPDA The present disclosure provides a hexagonal split-ring resonator based ultra-wideband log periodic dipole array antenna (LPDA) designed for ground penetrating radar applications to operate over a wide band of frequencies i.e., within the L band and S band and thereby minimizes the antenna size and enhances the bandwidth. The hexagonal split-ring resonator based ultra-wideband log periodic dipole antenna 100 comprises a dielectric substrate 101 composed of a flat circuit board 102, plurality of first dipole radiating elements 103, plurality of second radiating elements 104, and a transmission line 105. The hexagonal complimentary split-ring resonator enhances the accustomed LPDA parameters in terms of reflection coefficient, and gain.

No. of Pages : 24 No. of Claims : 9

(54) Title of the invention : SYSTEM AND METHOD TO PREDICT RHEUMATOID ARTHRITIS (RA)

<p>(51) International classification :G06F 11/36</p> <p>(31) Priority Document No :NA</p> <p>(32) Priority Date :NA</p> <p>(33) Name of priority country :NA</p> <p>(86) International Application No :NA</p> <p>Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA</p> <p>Filing Date :NA</p> <p>(62) Divisional to Application Number :NA</p> <p>Filing Date :NA</p>	<p>(71)Name of Applicant :</p> <p>1)Mr. S.Shanmugam</p> <p>Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Kongunadu College of Engineering and Technology, Tholurpatti, Trichirappalli,Tamil Nadu, India- 621 215 Tamil Nadu India</p> <p>2)Dr. Pravin R.Kshirsagar</p> <p>3)Dr. Shaik Khaleel Ahamed</p> <p>4)Mr. K.Nitalaksheswara Rao</p> <p>5)Dr. Parul Dawar</p> <p>6)Mr. Akkaraju Sailesh Chandra</p> <p>7)Ms. Neha Shukla</p> <p>8)Dr. Selvamani Indrajith</p> <p>9)Dr. Siva Shankar S</p> <p>10)Dr. R.Murugesan</p> <p>11)Mr. Pranav Chippalakatti</p> <p>(72)Name of Inventor :</p> <p>1)Mr. S.Shanmugam</p> <p>2)Dr. Pravin R.Kshirsagar</p> <p>3)Dr. Shaik Khaleel Ahamed</p> <p>4)Mr. K.Nitalaksheswara Rao</p> <p>5)Dr. Parul Dawar</p> <p>6)Mr. Akkaraju Sailesh Chandra</p> <p>7)Ms. Neha Shukla</p> <p>8)Dr. Selvamani Indrajith</p> <p>9)Dr. Siva Shankar S</p> <p>10)Dr. R.Murugesan</p> <p>11)Mr. Pranav Chippalakatti</p>
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(57) Abstract :

Disclosed is a system and method to predict rheumatoid arthritis (RA). The system includes one or more processors and non-volatile computer memory. The processors execute a plurality of computer-readable instructions. The non-volatile computer memory stores the computer-readable instructions configured to normalize a rheumatoid arthritis (RA) dataset stored in an arthritis database; split the RA dataset to a training dataset and a testing dataset from the RA dataset; extract a plurality of features by performing a harmonic search; train the extracted features; classify the RA dataset by an Adaptive Neuro-Fuzzy Inference System (ANFIS) model; and predict rheumatoid arthritis (RA) based on the classified RA dataset. The most illustrative drawing: FIG. 2.

No. of Pages : 50 No. of Claims : 8

(54) Title of the invention : NAVIGATION GUIDANCE FOR DIFFERENTLY ABLED PERSON

<p>(51) International classification :G01C 21/34</p> <p>(31) Priority Document No :NA</p> <p>(32) Priority Date :NA</p> <p>(33) Name of priority country :NA</p> <p>(86) International Application No :NA</p> <p>Filing Date :NA</p> <p>(87) International Publication No :NA</p> <p>(61) Patent of Addition to Application Number :NA</p> <p>Filing Date :NA</p> <p>(62) Divisional to Application Number :NA</p> <p>Filing Date :NA</p>	<p>(71)Name of Applicant :</p> <p>1)Dr. P. S. V. Srinivasa Rao Address of Applicant :Vignan's Institute of Management and Technology for Women, Ghatkesar, Kondapur, Telangana 501301 Telangana India</p> <p>2)Dr.Ranga Swamy Sirisati</p> <p>3)Dr.P.V.R.D Prasada Rao</p> <p>4)Mr.Srisailapu D Vara Prasad</p> <p>5)Mr.Srinivasa Rao Dhanikonda</p> <p>6)Dr.Shaik Khaja Mohiddin</p> <p>7)Ms.Kunchala Little Flower</p> <p>8)Dr.J.Sasi Kiran</p> <p>9)Dr.G.Charles Babu</p> <p>10)Mr.K.Vijay krupa Vatsal</p> <p>11)Mr.Aarepu Lakshman</p> <p>12)Mr.Todeti Srinivasa Babu</p> <p>(72)Name of Inventor :</p> <p>1)Dr. P. S. V. Srinivasa Rao</p> <p>2)Dr.Ranga Swamy Sirisati</p> <p>3)Dr.P.V.R.D Prasada Rao</p> <p>4)Mr.Srisailapu D Vara Prasad</p> <p>5)Mr.Srinivasa Rao Dhanikonda</p> <p>6)Dr.Shaik Khaja Mohiddin</p> <p>7)Ms.Kunchala Little Flower</p> <p>8)Dr.J.Sasi Kiran</p> <p>9)Dr.G.Charles Babu</p> <p>10)Mr.K.Vijay krupa Vatsal</p> <p>11)Mr.Aarepu Lakshman</p> <p>12)Mr.Todeti Srinivasa Babu</p>
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(57) Abstract :

This proposal is an embedded system based technique and the main objective of this proposed design is a blind man protection system to detect the obstacles using ultrasonic sensor. This blind man protection device is used to prevent against misshapeness which leads to great loss of human lives due to automobiles collisions, obstacles, and accident. This gives a disastrous result to human lives. So the main purpose of this design is to detect the other automobiles, obstacles and bystanders in order to prevent accidents. This proposal is designed for blind people to avoid obstacles. Here, an ultrasonic sensor is used to detect any obstruction and it in turn signals the microcontroller. Whenever the obstacle comes near the stick an ultrasonic sensor senses the obstacle and signals to the microcontroller and in turn the microcontroller will on the voice chip. The detector circuitry consists of two way ultrasonic integrated detection. The detector houses the transmitter as well as receiver. The detectors are positioned on the blind man stick. Once the detector recognizes any obstacle, the microcontroller signals and in turn on the sensor which is interfaced to the microcontroller.

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

(54) Title of the invention : WATER IMPURITY DETECTION USING INTERNET OF THINGS (IOT) FOR SMART CITY

(51) International classification :G01N 33/00 (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)Dr.A.Clementking Address of Applicant :Director , Integrated Intelligent Research(IIR) , No 29 , Sarojammal Complex , 1st Floor , Keelkattalai , Chennai 600117 Tamil Nadu India 2)Ms.S.Rani 3)Mr. Neeraj Chandnani 4)Mr.Yogesh Kumar Agarwal 5)Dr.Kudaravalli Sai Manoj 6)Dr Chiranjeevi Paritala 7)Dr. Shaik Khaleel Ahamed 8)Dr S.V.N. Sreenivasu 9)Mr.ANANTHNATH G.V. S (72)Name of Inventor : 1)Dr.A.Clementking 2)Ms.S.Rani 3)Mr. Neeraj Chandnani 4)Mr.Yogesh Kumar Agarwal 5)Dr.Kudaravalli Sai Manoj 6)Dr Chiranjeevi Paritala 7)Dr. Shaik Khaleel Ahamed 8)Dr S.V.N. Sreenivasu 9)Mr.ANANTHNATH G.V. S
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(57) Abstract :

This invention provides an in-pipe water impurity detection system using IoT for smart city. With the new improvement in communication technologies, this real-time in-pipe water impurity detection is getting more extra attention. This invention is to develop an IoT based method that can examine and identify the impurities and unwanted particles present in the water. The system will be located at the origin point of every society/colony. The system can determine the hardness, alkalinity, and turbidity of the water. The system tests the water at frequent periods provided for pipelines to the customers/citizens. The real-time pieces of information are analyzed using fuzzy artificial evaluation also uploaded over the cloud. When an impurity is disclosed in the water, the system transmits an alert to the customers about the water impurity parameters. It prevents the additional flow of water in the contaminated zone in the pipe utilizing a solenoid valve. Some other area which provides quality water to the customers in the water delivery network continues flowing. The outcomes show that this invention can examine the characteristic water parameters in real-time and can successfully treat, forward data to the cloud, and suggest the consumers about the contamination in the zone.

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

(54) Title of the invention : SECURE REMOTE HEALTH MONITORING FRAMEWORK USING INTERNET OF THINGS WITH EDGE COMPUTING

(51) International classification	:H04L 29/08	(71)Name of Applicant : 1)MOHAMMED IMTYAZ AHMED Address of Applicant :H.No:18-1-510/85/1, Near Masjid-E-Ayub, Narqui Phoolbagh, Chandrayangutta, Hyderabad, Telangana-500005, India. Telangana India
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(32) Priority Date	:NA	3)K. INDRA GANDHI
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(61) Patent of Addition to Application Number	:NA	2)Dr. G. KANNAN
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(62) Divisional to Application Number	:NA	4)Dr. SHAIK KHALEEL AHAMED
Filing Date	:NA	5)M.VENKATA RAMANA

(57) Abstract :

The present invention named SRHMF • is the technology rich solution for remote health monitoring. It involves a mobile application or web based application that provides dashboard to doctor / physician who can monitor vital signs of patients live. Thus the invention helps to have real time treatment to patients. It has capabilities to reduce death of patients by eliminating delay in diagnosis and treatment. The solution is optimized with end to end security protocol, efficient channel assignment algorithm and edge gateway integration algorithm. When compared with traditional healthcare units, this technology driven solution makes the healthcare units to provide high quality services. It makes the dream of remote patient health monitoring a reality with 24/7 availability, scalability and fault tolerance.

No. of Pages : 12 No. of Claims : 8

(54) Title of the invention : SYSTEM TO IDENTIFY RARE DEFECTS IN A MICRO SCALE PRODUCT USING MACHINE LEARNING

<p>(51) International classification :G06N 20/00</p> <p>(31) Priority Document No :NA</p> <p>(32) Priority Date :NA</p> <p>(33) Name of priority country :NA</p> <p>(86) International Application No :NA</p> <p>Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA</p> <p>Filing Date :NA</p> <p>(62) Divisional to Application Number :NA</p> <p>Filing Date :NA</p>	<p>(71)Name of Applicant :</p> <p>1)DR S V N SREENIVASU Address of Applicant :Professor, Department of Computer Science and Engineering, Narasaraopeta Engineering College(Autonomous), Kotappakonda Rd, Narasaraopeta, Andhra Pradesh-522601. Andhra Pradesh India</p> <p>2)Dr MADA SREENIVASA KUMAR</p> <p>3)Dr. SIVA NAGESWARA RAO SIVARATRI</p> <p>4)DR LAKSHMINADH KURAKULA</p> <p>5)DR NAGA THIRUMALA RAO SIGHAKOLLI</p> <p>6)DR V V A S LAKSHMI</p> <p>7)DR. P RAMESH BABU</p> <p>8)DR. N SREENIVASA RAO</p> <p>9)DR. SHAIK KHALEEL AHAMED</p> <p>10)Dr VEMULA V SUNIL KUMAR</p> <p>(72)Name of Inventor :</p> <p>1)DR S V N SREENIVASU</p> <p>2)Dr MADA SREENIVASA KUMAR</p> <p>3)Dr. SIVA NAGESWARA RAO SIVARATRI</p> <p>4)DR LAKSHMINADH KURAKULA</p> <p>5)DR NAGA THIRUMALA RAO SIGHAKOLLI</p> <p>6)DR V V A S LAKSHMI</p> <p>7)DR. P RAMESH BABU</p> <p>8)DR. N SREENIVASA RAO</p> <p>9)DR. SHAIK KHALEEL AHAMED</p> <p>10)Dr VEMULA V SUNIL KUMAR</p>
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(57) Abstract :

ABSTRACT In the manufacturing industry, in the early stages of product development, the defect or fault has to be identified. After completion of the manufacturing, when found defect or faulty product, it may lead to financial loss in the case of micro-scale products. For industrial prototype, the 3D-printing enables it to iterate the prototype number of times when there is a change in the concept or idea of the designer without much loss, wherein actual manufacturing using the machinery in industry costs more and wastage of material. Alternatively, there will be a need to recycle a method that has to be adopted or dispose of waste. In this process, the parameters are monitored, and the training sets are obtained from the different sensors to capture the desired data. Once capturing the training set, the desired features are extracted. Next, the machine learning algorithm, which is the communication and interaction of machine to machine, is deployed with an appropriate algorithm. The algorithm suggested is the K-Nearest Neighbors algorithm, which correlates the trained data set with the test data and give predictions. From the predictions given by the process, the user can analyze the data whether it is tolerable and continue with the process of printing in the 3D-printer or to halt the process of printing and check the corresponding feature and make changes to it and start the process again. This model of the concept or idea costs less, comparatively testing by manufacturing the component in the industry directly with machines.

No. of Pages : 11 No. of Claims : 5



Australian Government

IP Australia

CERTIFICATE OF GRANT INNOVATION PATENT

Patent number: 2020101080

The Commissioner of Patents has granted the above patent on 8 July 2020, and certifies that the below particulars have been registered in the Register of Patents.

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Title of invention:

Customer Retention System for Retail Enterprises using Multi-phase Clustering Data Mining Technique

Name of inventor(s):

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Term of Patent:

Eight years from 23 June 2020

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



Dated this 8th day of July 2020

Commissioner of Patents

PATENTS ACT 1990

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

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

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

Certain threats of infringement proceedings are always unjustifiable.

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

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

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

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

(54) Title of the invention : AN EFFICIENT ARITHMETIC VLSI ARCHITECTURE FOR DWPT ERROR APPROXIMATION

<p>(51) International classification :H03H0017060000, H03H0017020000, G06F0007544000, G06F0007523000, G06F0017500000</p> <p>(31) Priority Document No :NA</p> <p>(32) Priority Date :NA</p> <p>(33) Name of priority country :NA</p> <p>(86) International Application No :NA</p> <p>Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA</p> <p>Filing Date :NA</p> <p>(62) Divisional to Application Number :NA</p> <p>Filing Date :NA</p>	<p>(71)Name of Applicant : 1)Mahesh Enumula Address of Applicant :Flat no 304,Anco height apartments, Bandlaguda Jagir, Hyderabad. PIN:500086 Phone no: 9912438444 E-Mail: researcher.mahesh@gmail.com Telangana India</p> <p>(72)Name of Inventor : 1)GADDAM RENUKA 2)Dr. V. Usha Shree 3)Dr.P.Chandrasekhar Reddy 4)Dr. Molakatala Nagamani 5)Dr. Sasi Kiran Jangala 6)Dr.S.M.K.M ABBAS AHMAD 7)Dr.Sankar babu Potluri, 8)JYOTHI. CHINNA BABU 9)Prof. D SURENDRA RAO 10)Prof. V.BHAGYA RAJU 11)S.Hemanth chowdary 12)Ravinder Korani 13)MAHESH ENUMULA 14)T SYED AKHEEL 15)Mude Sreenivasulu</p>
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(57) Abstract :

The power budget, size and cost make the task difficult to integrate more functions as the signal processing algorithms such as Discrete wavelet transform (DWT), Discrete wavelet packet transform (DWPT), finite impulse response (FIR) filtering. Therefore, developing low-complexity hardware efficient arithmetic design for healthcare application remains a challenge. DSP algorithms are implemented in dedicated hardware system to meet space-time requirement of resource constrained applications such as repetitive multiply-accumulate operations, computational symmetry and redundancy. Efficient implementation of multiplication operations is a key issue in digital filter design of DSP application. Separate approach is used for signed and unsigned multiplication. Approximate multiplication and addition operation provide small area and leakage power due to saving of storage data-bits. Approximation computation methodology produces dynamic power reduction due to memory access saving. Approximate computation consider small percentage of accuracy loss that does not affect much the overall application specific performance in digital arithmetic hardware design. Delay and power consumption is considered to be major issue in ripple carry adder (RCA) design is required to study the effectiveness of the arithmetic coefficient approximation method on DWPT computation. The bit level optimization of full-width adder tree for multiple constant multiplication (MCM) is given to taking the advantage of shifting operation. Considered images with different colour and edge information for DWPT applications are grouped as low-texture, moderate-texture and higher-texture images for discussion purpose. Less colour variation with less edge information refer to low-texture image, less colour variation with more edge information refer to moderate-texture image, and more colour variation with more edge information refer to higher-texture image. Pixel variation is more in data-vectors of higher-texture images, relatively less in data-vectors of moderate-texture images and almost absent/small in data-vectors of low-texture images. The proposed shift-add register (SAR) and approximate arithmetic architecture designs use a fixed-bias for error-compensation. The fixed-bias compensates truncation error near accurately for input data-vector with more pixel variation while overcompensate the truncation error for input data-vector with small pixel variation.

No. of Pages : 15 No. of Claims : 2

(54) Title of the invention : Monitoring of Precision Viticulture System using IoT

<p>(51) International classification :C02F1/14</p> <p>(31) Priority Document No :NA</p> <p>(32) Priority Date :NA</p> <p>(33) Name of priority country :NA</p> <p>(86) International Application No :PCT//</p> <p>Filing Date :01/01/1900</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA</p> <p>Filing Date :NA</p> <p>(62) Divisional to Application Number :NA</p> <p>Filing Date :NA</p>	<p>(71)Name of Applicant :</p> <p>1)Dr Narayana Swamy Ramaiah Address of Applicant :Professor, Dept of CSE, Faculty of Engineering and Technology, JAIN (Deemed to be University), Ramanagara District, Karnataka. Karnataka India</p> <p>2)Dr V Sangeetha</p> <p>3)Dr D Nesakumar</p> <p>4)Mr T Santhosh Kumar</p> <p>5)Ms M Saritha</p> <p>6)Mr V Adithya Pothan Raj</p> <p>7)Dr G Pavithra</p> <p>8)Dr T C Manjunath</p> <p>9)Dr V Kamatchi Kannan</p> <p>10)Dr P Ponmurugan</p> <p>(72)Name of Inventor :</p> <p>1)Dr Narayana Swamy Ramaiah</p> <p>2)Dr V Sangeetha</p> <p>3)Dr D Nesakumar</p> <p>4)Mr T Santhosh Kumar</p> <p>5)Ms M Saritha</p> <p>6)Mr V Adithya Pothan Raj</p> <p>7)Dr G Pavithra</p> <p>8)Dr T C Manjunath</p> <p>9)Dr V Kamatchi Kannan</p> <p>10)Dr P Ponmurugan</p>
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(57) Abstract :

Precision Agriculture (PA) is an ever-expanding field that takes modern technological advancements and applies it to farming practices to reduce waste and increase output. One advancement that can play a significant role in achieving precision agriculture is wireless technology, and specifically the Internet of Things (IoT) devices. Small, inch scale and low-cost devices can be used to monitor great agricultural areas. The proposed system is for precision viticulture which uses IoT devices for real-time monitoring. The different components of the system are programmed properly and the interconnection between them is designed to minimize energy consumption. Wireless sensor nodes measure soil moisture and soil temperature in the field and transmit the information to a base station. If the conditions are optimal for a disease or pest to occur, a drone flies towards the area. When the drone is over the node, pictures are captured and then it returns to the base station for further processing. The feasibility of the system is examined through experimentation.

No. of Pages : 10 No. of Claims : 7

(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 (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 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
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(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