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(19) INDIA  
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(43) Publication Date : 10/12/2021

(54) Title of the invention : SENSOR BASED INTELLIGENT WEARABLE DEVICE TO MONITOR BLOOD GLUCOSE LEVELS OF A DIABETES PATIENT AND GENERATE INSULIN USING ARTIFICIAL PANCREAS

(51) International classification :A61B0005145000, A61B0005000000, A61M0005172000, A61M0005142000, G16H0005000000  
(86) International Application No :PCT//  
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(57) Abstract :

Pancreas is an organ in human body which is located at abdominal part near stomach and liver. Pancreas is responsible for secretion of several types of hormones such as insulin and glucagon. Pancreas is also responsible for secretion of digestive enzymes that are capable to break down the food particles and generate glucose. Two major hormones that are the deciding factors for occurrence of diabetes in a patient are insulin and glucagon. Insulin is responsible to lower the blood glucose levels by absorbing glucose from blood to be used as energy, whereas glucagon is responsible for raising the blood glucose levels by aiding the liver to release the stored glucose. There are two types of diabetes a person can develop due to lack of insulin secretion. When pancreas does not produce necessary levels of insulin to regulate blood glucose levels, it is Type 1 diabetes. Whenever the human body becomes resistant to the present level of insulin in the body, Type 2 diabetes is said to occur. Proposed is a sensor based intelligent wearable device to monitor blood glucose level of a diabetes patient, the Artificial Pancreas consists of a continuous glucose monitoring system, a machine learning algorithm device and an insulin infusion device. Sensor is inserted below the skin of a diabetes patient and continuous blood glucose monitoring is done. Sensor based wearable device also alerts regarding fluctuations in blood glucose levels. The machine learning algorithm device is used for the system to learn and mimic the function of pancreas. The auto-mode insulin infusion device starts pumping the insulin based on the alerts generated by wearable device.

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(12) PATENT APPLICATION PUBLICATION

(21) Application No.202141056431 A

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(54) Title of the invention : A SYSTEM BASED ON THERMAL IMAGE PROCESSING FOR SUBCUTANEOUS DETECTION OF VEINS, BONES AND METHOD THEREOF

<p>(51) International classification :H04N0009310000, A61N0005060000, G02B0026080000, G01N0021310000, G16H0050300000</p> <p>(86) International Application No :PCT// Filing Date :01/01/1900</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : 1)Dr.G.Bindu Madhavi Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Anurag University, Hyderabad, Telangana, India. Pin Code:500088 -----</p> <p>2)Dr.K.Madhusudhana Rao 3)Dr.P.Lalitha Kumari 4)Mr.Sharook.R 5)Dr.D.Sattianadan 6)Dr.Arul Leena Rose P J 7)Dr.Sushma Jaiswal 8)Mr.Tarun Jaiswal 9)Dr.M.Sunil Kumar 10)Dr.Allam Joseph Praveen Kumar</p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)Dr.G.Bindu Madhavi Address of Applicant :Assistant Professor, Department of Computer Science and Engineering, Anurag University, Hyderabad, Telangana, India. Pin Code:500088 -----</p> <p>2)Dr.K.Madhusudhana Rao Address of Applicant :Professor, Department of ECE, KKR &amp; KSR Institute of Technology and Sciences, Guntur, Andhra Pradesh, India. Pin Code: 522017 -----</p> <p>3)Dr.P.Lalitha Kumari Address of Applicant :Assistant Professor, Department of SCOPE, Sr.Grade-I, VIT-AP University, Vijayawada, Andhra Pradesh, India. Pin Code:522237 -----</p> <p>4)Mr.Sharook.R Address of Applicant :UG Student, Final Year, Department of Electrical and Electronics Engineering, KPR Institute of Engineering and Technology, Coimbatore, Tamil Nadu, India. Pin Code:641407 -----</p> <p>5)Dr.D.Sattianadan Address of Applicant :Associate Professor, Department of Electrical and Electronics Engineering, SRM Institute of Science and Technology, Kattankulathur, Chennai, Tamil Nadu, India. Pin Code:603203 -----</p> <p>6)Dr.Arul Leena Rose P J Address of Applicant :Associate Professor, Department of Computer Science, College of Science and Humanities, SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu, India. Pin Code:603203 -----</p> <p>7)Dr.Sushma Jaiswal Address of Applicant :Assistant Professor, Department of Computer Science &amp; Information Technology (CSIT), Guru Ghasidas Vishwavidyalaya (A Central University), Koni, Bilaspur, Chhattisgarh, India. Pin Code: 495009 -----</p> <p>8)Mr.Tarun Jaiswal Address of Applicant :Research Scholar, Department of Computer Application, National Institute of Technology (NITRR), Raipur, Chhattisgarh, India. Pin Code:492010 -----</p> <p>9)Dr.M.Sunil Kumar Address of Applicant :Professor, Department of CSE, Sree Vidyanikethan Engineering College (Autonomous), Tirupati, Andhra Pradesh, India. Pin Code:517502 -----</p> <p>10)Dr.Allam Joseph Praveen Kumar Address of Applicant :St. Francis Street, Regimental Bazar, Secunderabad, Hyderabad, Telangana, India. Pin Code:500025 -----</p>
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(57) Abstract :  
The present invention discloses a system based on thermal image processing for subcutaneous detection of veins, bones and method thereof. The system includes, but not limited to, an image capturing device emitting a plurality of light beams having various wavelength from for all beams that is different from the wavelength of each beam provided through the light source and a means for combining the plurality of beams into a single beam of light; a user interface with an artificial intelligence interface for transforming the combined light beams into a single light to and provides as an input to a scanning unit; and a display device with an optical zooming module with an infrared transmitting filter for visualizing a digital image information obtained by the aforesaid components and means. Accompanied Drawing [FIG. 1]

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(12) PATENT APPLICATION PUBLICATION

(21) Application No.202141056091 A

(19) INDIA

(22) Date of filing of Application :03/12/2021

(43) Publication Date : 10/12/2021

(54) Title of the invention : SENSOR BASED INTELLIGENT ROBOTIC COOKING KITCHEN USING HAPTIC TECHNOLOGY

(51) International classification :G06N0003040000, G06N0020000000, B25J0009160000, A47J0027000000, B25J0009000000  
(86) International Application No :PCT//  
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(61) Patent of Addition to Application Number :NA  
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(57) Abstract :  
Kitchen Technology has advanced considerably in the recent few years. Disclosed is the system of a robot capable of cooking dishes in kitchen. The complex movements of expert chefs are recorded. Using supervised machine learning techniques, the robotic humanoid movements for preparing a particular dish is learnt. Using multiple instance inputs of expert chefs hand movements, picking the measuring up, stirrer are learnt using artificial intelligence. Pattern Recognition techniques captures the accurate movements of the record and train the robot accordingly. The clear time-index commands are the forms of input to achieve certain functionalities in cooking. The accuracy of the performance of the cooking robot is calibrated using convolution neural networks. A plurality storage container is enabled within the robotic arm so as to refill the container with necessary materials for cooking such as salt, oil and water that are frequently used during the cooking procedure. Sensor assembly also comprises of array of cameras for monitoring the performance of robotic arm controller in the workspace. Auto cleansing of the kitchen robot is also done by the use of sensors to detect the completion of the cooking procedure.

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(19) INDIA

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(43) Publication Date : 10/12/2021

(54) Title of the invention : A SYSTEM FOR FINGERPRINT IMAGE PROCESSING FOR AN ELECTRONIC DEVICE AND METHOD THEREOF

(51) International classification :G06K0009000000, G06F0001320000, H04M0001725000, G06K0009200000, G01R0029080000  
(86) International Application No :NA  
Filing Date :NA  
(87) International Publication No :NA  
(61) Patent of Addition to Application Number :NA  
Filing Date :NA  
(62) Divisional to Application Number :NA  
Filing Date :NA

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(57) Abstract :

[035] The present invention discloses a system for fingerprint image processing for an electronic device and method thereof. The system includes, but not limited to, a monitoring unit provided to monitor an operation performed on a scanning area of the electronic device; and a sending unit configured to send a wake-up call to a fingerprint scanning unit when the operation indicating the entry into a pre-set fingerprint application scenario is detected, where the wake-up call is used to instruct the fingerprint scanning unit to enter the working mode. Accompanied Drawing [FIG. 1]

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(12) PATENT APPLICATION PUBLICATION

(21) Application No.202121055035 A

(19) INDIA

(22) Date of filing of Application :28/11/2021

(43) Publication Date : 10/12/2021

(54) Title of the invention : A SYSTEM FOR CARDIAC OUTPUT ESTIMATION & PREDICTION USING MACHINE LEARNING INTERFACES AND METHOD THEREOF

(51) International classification :A61B0005000000, A61B0005021000, A61B0005024000,  
A61B0005022000, G06N0020000000  
(86) International Application No :NA  
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(87) International Publication No :NA  
(61) Patent of Addition to Application Number :NA  
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(62) Divisional to Application Number :NA  
Filing Date :NA

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(57) Abstract :

[035] The present invention discloses a system for cardiac output estimation & prediction using machine learning interfaces and method thereof. The method and system include, but not limited to, a wearable blood pressure measuring device provided with a processing unit; a user device with a touch sensing display and the like; a user interface provided for receiving output and sending commands to the processing unit from the user; and a memory unit for storing computer executable instructions, which when executed by the processing unit cause the processing unit, but not limited to: receiving, a plurality of cycles of arterial blood pressure from the wearable blood pressure measuring device; and analysing, the plurality of cycles of arterial blood pressure to determine a mean arterial blood pressure by using a machine learning interface, over each cycle beginning at a beat onset time and an inter-beat variability in blood pressure between the cycles of arterial blood pressure. Accompanied Drawing [FIG. 1]

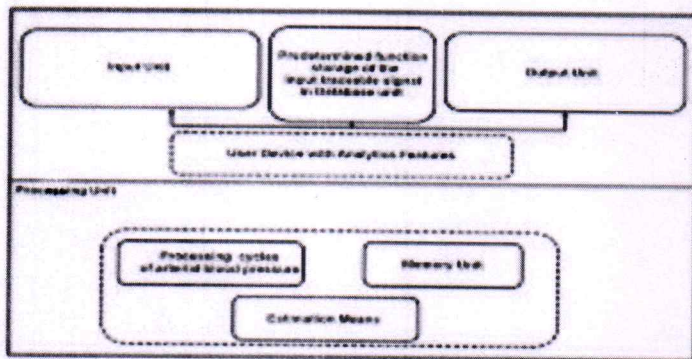


FIG. 1

No. of Pages : 23 No. of Claims : 9



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(19) INDIA

(22) Date of filing of Application :23/11/2021

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(54) Title of the invention : IoT BASED EVENT DRIVEN AIR QUALITY SENSOR NETWORK TO DETECT FOREST FIRES USING DRONE BASED INTELLIGENT MICRO ELECTRICAL AND MECHANICAL SYSTEMS (MEMS) TECHNOLOGY

(51) International classification :G08B001700000, B64C003902000, A62C000302000, G08B0017120000, B64D0047080000

(86) International Application No :PCT/  
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(57) Abstract :

Recent days have seen a steep rise in the occurrence of forest fires in various parts of the world. It is known from the research literature that in 2018, California encountered one of the deadliest and destructive forest fires destroying nearly 18000 structures and nearly 85 people have been killed during the incident. Early detection of occurrence of forest fires could be very helpful in alerting people to evacuate and hereby saving lives. Intelligent Drones play a major role in detecting forest fires. Intelligent Drones are capable to learn the occurrence of fire hotspots using thermal sensors. Such data collected by drones could be analyzed using machine learning algorithms to predict the probability of occurrence of forest fire. IoT based Intelligent Drone system is built using sensors and micro electrical and mechanical systems is capable to capture forest fires and generate detailed information for analytics. Aerial intelligence that are captured by drones are used to make effective decisions regarding the need for evacuation of people. Drone footages indicates the emergency team backup forces on time. Thermal camera and visual cameras inform the team about the topography of the fire and help human crew regarding the presence of thick smoke caused by forest fires.

No. of Pages : 15 No. of Claims : 3



71567  
5/48

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202131053753 A

(19) INDIA

(22) Date of filing of Application :23/11/2021

(43) Publication Date : 10/12/2021

(54) Title of the invention : A DATA PROCESSING SYSTEM AND METHOD FOR VEHICLE-END DEVICE WITH A CLOUD COMPUTING

<p>(51) International classification :H04L0029080000, G06F0016220000, G06F0016270000, H04L0029060000, G06F0016110000</p> <p>(86) International Application No Filing Date :NA :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number Filing Date :NA :NA</p> <p>(62) Divisional to Application Number Filing Date :NA :NA</p>	<p>(71)Name of Applicant :</p> <p><b>1)Dr.Rabinarayan Satpathy</b> Address of Applicant :Professor CSE (FET) and Director of the Office of the VC, Sri Sri University, Cuttack, Odisha, India. Pin Code: 754006</p> <p><b>2)Dr.Suma. T</b></p> <p><b>3)Dr.S.Ravichandran</b></p> <p><b>4)Dr.M.Sunil Kumar</b></p> <p><b>5)Mrs.N.Vanajakshi</b></p> <p><b>6)Prof.Bibhuti Bhusan Dash</b></p> <p><b>7)Dr.Sushma Jaiswal</b></p> <p><b>8)Mr.Tarun Jaiswal</b></p> <p><b>9)Mrs.V.Swathi</b></p> <p><b>10)Dr.K.Gurnadha Gupta</b></p> <p>(72)Name of Inventor :</p> <p><b>1)Dr.Rabinarayan Satpathy</b></p> <p><b>2)Dr.Suma. T</b></p> <p><b>3)Dr.S.Ravichandran</b></p> <p><b>4)Dr.M.Sunil Kumar</b></p> <p><b>5)Mrs.N.Vanajakshi</b></p> <p><b>6)Prof.Bibhuti Bhusan Dash</b></p> <p><b>7)Dr.Sushma Jaiswal</b></p> <p><b>8)Mr.Tarun Jaiswal</b></p> <p><b>9)Mrs.V.Swathi</b></p> <p><b>10)Dr.K.Gurnadha Gupta</b></p>
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(57) Abstract :  
The present invention discloses a system for data clipping and node recovery using blockchain and method thereof. The method and system include, but not limited to, a processing unit provided with an application module in a blockchain network, which further comprises an object storage gateway, a database storage medium and an object storage. Further, the processing is configured to receive large and small objects and business metadata, the object storage gateway is configured for receiving and sending the objects, storing and inquiring the objects in the object storage, and furthermore combining the small objects into the large objects and generating the object metadata about a plurality of nodes in the blockchain network, and the database storage medium is further configured for storing the business metadata and the object metadata.

No. of Pages : 18 No. of Claims : 9

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(12) PATENT APPLICATION PUBLICATION

(21) Application No.202141053048 A

(19) INDIA

(43) Publication Date : 03/12/2021

(22) Date of filing of Application :18/11/2021

(54) Title of the invention : WEARABLE SWEAT SENSOR BASED INTELLIGENT DEVICE TO DETECT THE STRESS LEVELS OF A PATIENT BY MONITORING CORISTOL AND BLOOD GLUCOSE LEVELS

(51) International classification : A61B0005000000, A61B0005145000, G01N0033740000, A61K0033060000, A61B0005024000  
(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  
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(57) Abstract :

Whenever a person is in a stressful situation or life-threatening situation, a hormone called cortisol shoots up in his/her body. Cortisol is a steroid hormone that is secreted by adrenal glands as cholesterol. The secretion of cortisol hormone is controlled by another hormone called adrenocorticotropin hormone which is secreted by pituitary gland. Cortisol hormone controls the important functionalities of human body such as regulating metabolism, maintaining blood pressure and blood sugar levels, functioning of immune system and cardio vascular system. Cortisol can be detected in human blood, saliva, urine and sweat. In this invention, we take sweat as the stress detection input. A miniaturized wearable sensor is developed that is capable of monitoring and measuring the rise in cortisol levels of a person during stressful situations. Whenever the cortisol level raises above a threshold, an alert is given to the person to relax and calm down using natural process or medicines so that further damages such as brain stroke and heart attacks can be prevented.

No. of Pages : 15 No. of Claims : 3



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9/50

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202131052161 A

(19) INDIA

(22) Date of filing of Application :14/11/2021

(43) Publication Date : 10/12/2021

(54) Title of the invention : A SYSTEM FOR DETERMINING INDOOR LOCATION USING A DIGITAL VISUAL SYSTEM BASED ON INTERNET OF THINGS (IOT) AND METHOD THEREOF

(51) International classification :H04L0029080000, H04W0004330000, G01S0005020000, G01B0011000000, G06T0007194000  
(86) International Application No :NA  
Filing Date :NA  
(87) International Publication No : NA  
(61) Patent of Addition to Application Number :NA  
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(62) Divisional to Application Number :NA  
Filing Date :NA

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(57) Abstract :

The present invention discloses a system for determining indoor location using a digital visual system based on Internet of things (IOT) and method thereof. The system includes, but not limited to, a plurality of IoT compliance networking modules, configured for connecting a plurality of image capturing devices; a processing unit receives input from the plurality of image capturing devices and providing the same to the digital visual system for creating an indoor map for a predetermined indoor location. Further, the processing unit is configured to determine the logic of the classification of the indoor location by using the indoor map and-classification being configured to be based at least partially on described device type determines the position about described calculating the IoT compliance networking modules and equipment for evaluating the logic; and the logic evaluation is provided on the scene of one group of the IoT compliance networking modules.

No. of Pages : 19 No. of Claims : 9



4-458  
S-51

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202141052156 A

(19) INDIA

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

(43) Publication Date : 03/12/2021

(54) Title of the invention : BRAIN INSPIRED ARIFICIAL INTELLIGENCE IMPLANT TO DETECT HEART DISEASE USING RESERVOIR COMPUTING

(51) International classification :G06N0003080000, A61L0027540000, G06N0020000000, G06N0005000000, G06N0005040000  
 (86) International Application No :PCT//  
 Filing Date :01/01/1900  
 (87) International Publication No : NA  
 (61) Patent of Addition to Application Number :NA  
 Filing Date :NA  
 (62) Divisional to Application Number :NA  
 Filing Date :NA

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(57) Abstract :  
 Research study shows that nearly 30% of the heart attacks occur in patient without any symptoms. Different patterns in medical data could efficiently be identified and classified using Artificial Intelligence Techniques. Research shows that an implant could detect three proteins whose levels are subject to rise after the occurrence of heart attack. Such implants could aid patients with high-risk of heart attack by helping doctors to give appropriate treatment on-time in case of occurrence of heart attack and also to prevent the occurrence of further complications of heart disease. Implants are built using blocks of transistors that are built using polymer fibers which are capable to replicate within human body. Such a biocompatible implant captures the electrical inputs and converts into byte codes that could readily be used for computation. Here the components are randomly configured into a system to apply a type of machine learning called reservoir computing. Based on the output, the data is trained to interpret the results of captured electric patterns and classify the same.

No. of Pages : 15 No. of Claims : 3



17/403  
5/52

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202141051706 A

(19) INDIA

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

(43) Publication Date : 26/11/2021

(54) Title of the invention : AN AI & ML BASED SYSTEM FOR FABRICATING POWER VLSI DIODE DEVICES AND METHOD THEREOF

(51) International classification :H01L0029060000, H01L0029780000, H01L0021560000, H01L0029660000, H01L0029861000  
(86) International Application No :NA  
Filing Date :NA  
(87) International Publication No :NA  
(61) Patent of Addition to Application Number :NA  
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(62) Divisional to Application Number :NA  
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(57) Abstract :

[034] The present invention discloses an AI & ML based system for fabricating power VLSI diode devices and method thereof. The method and system includes, but not limited to, a VLSI compatible substrate; a buried layer provided in the VLSI compatible substrate; a cathode region in the VLSI circuitry, further comprising a high-voltage lightly doped drain in the VLSI compatible substrate; a well surrounding high-voltage lightly doped drain and a doping region in the well and surrounding the high-voltage lightly doped drain communicatively coupled with an anode region in the VLSI circuitry surrounding the cathode region in the VLSI circuitry; and a guard ring surrounding the anode region and connected to the buried layer. Accompanied Drawing [FIG. 1]

No. of Pages : 23 No. of Claims : 7



4-446  
S-53

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202141051612 A

(19) INDIA

(22) Date of filing of Application :10/11/2021

(43) Publication Date : 03/12/2021

(54) Title of the invention : A SYSTEM FOR TAGGING IOT DEVICE BASED ON CONVOLUTIONAL NEURAL NETWORK (CNN) AND METHOD THEREOF

(51) International classification :H04L0029080000, H04W0004700000, H04L0029060000, G06N0003040000, H04W0012000000  
(86) International Application No :NA  
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(87) International Publication No :NA  
(61) Patent of Addition to Application Number :NA  
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(57) Abstract :

The present invention discloses a system for Tagging IoT Device based on Convolutional Neural Network (CNN) and method thereof. The system includes, but not limited to, one or more processors configured to locate at least one IoT device in an IoT network, wherein after locating, searching information about the IoT device in an IoT network, which includes at least device class associated with the IoT devices in the IoT network, evaluating a plurality of cloud-based services tagged with the IoT device classes, and further associated with the IoT devices in the IoT network, and offer the evaluated cloud-based services in the IoT network to the other IoT devices. Accompanied Drawing [FIG. 1]

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