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Result on Internet of Things in Healthcare Monitoring

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Abstract: ***Internet of things (IoT) rises as a strong and versatile domain where embedded systems and sensors can connect and exchange data over the Internet. The importance of ioT devices and signal can be critical, so security constraints are necessary to keep Iot data safe from hackers to confirm data privacy and safe data. The nature of IoT devices as a resource contains devices required a different authentication schema that does not consume high computing and energy resources. In this paper, a review for Iot healthcare usage and a aristocratic authenticatrion mechanism for Iot networks have been proposed. The framework of reliable and secure healthcare architecture has been proposed. ECC algorithm over the CoAP protocol has been used. The proposed authentication approach provides an efficient authentication mechanism with high security and reliability.***
IoT refers to an Internet Of Things(IoT). Connecting any device (including everything from cell phones, vehicles, home appliances and other wearable embedded with sensors and actuators) with Internet so that these objects can exchange data with each other on a network. It is interesting to note that there is a difference between IoT and the Internet ,it is the absence of Human role. The IoT devices can create information about individual's behaviours, analyse it, and take action (IOT is similar then)

Keywords: CoAP, ECC,

I. INTRODUCTION

IoT refers to an Internet of Things (IoT). Connecting any device (including everything from cell phones, vehicles, home appliances and other wearable embedded with sensors and actuators) with Internet so that these objects can exchange data with each other on a network. It is attention-grabbing to notice that there's a distinction between IoT and also the Internet; it's the absence of Human role. The IoT devices can create information about individual's behaviors, analyze it, and take action (IoT is smarter than Internet).

II. LITERATURE REVIEW

A. IOT -Based Health Monitoring System for Active and Assisted Living

The Internet of Things (IoT) has been widely used to interconnect the available medical resources and offer smart, reliable, and effective healthcare service to the elderly people. Health monitoring for active and assisted living is one of the paradigms that can use the IoT advantages to improve the elderly lifestyle. In this paper, we present an IoT architecture customized for healthcare applications. The proposed architecture collects the data and relays it to the cloud where it is processed and analyzed. Feedback actions based on the analyzed data can be sent back to the user. A prototype of the proposed architecture has been built to demonstrate its performance advantages.

B. A Survey on Health Monitoring System by Using IOT

IOT devices are used in many fields which make the user's daily life more comfortable. These smart sensors devices is used to collect heartbeat which is used to assess the health condition of the patient. Communicating the collected information to the doctor, making exact decision on the data collected and notifying the patient is the challenging task in the IOT. This paper will give you a comparative study on health detection and monitoring of the patient.

C. Smart Human Health Monitoring System By Using IoT

Now a days because of environmental pollutions and all other things like work pressures etc. the human health care becomes one of the big problem. In this paper, we presents the design and implementation of an IOT-based health monitoring system for emergency medical services which can demonstrate collection, integration, and interoperation of IoT data flexibly which can provide support to emergency medical services like Intensive Care Units(ICU), using a INTEL GALILEO 2ND generation development board. The

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proposed model enables users to improve health related risks and reduce healthcare costs by collecting, recording, analyzing and sharing large data streams in real time and efficiently. The idea of this project came so to reduce the headache of patient to visit to doctor every time he need to check his blood pressure, heart beat rate, temperature etc. With the help of this proposal the time of both patients and doctors are saved and doctors can also help in emergency scenario as much as possible. The proposed outcome of the project is to give proper and efficient medical services to patients.

D. IOT based Patient Health Monitoring System

This paper gives us the development of a microcontroller based system for wireless heartbeat and temperature monitoring using Wi-Fi module. By this we can easily provide real time information available for many users and can send them alert in critical conditions over internet. In India many patients are dying because of heart attacks and reason behind this factor is that they are not getting proper help during the period. To give them timely and proper help first we want to continuous monitoring of patient health. The fixed monitoring system can be used only when the patient is lying on bed and these systems are huge and only available in the hospitals in ICU. The system is developed for home use by patients that are not in a critical condition but need to be timely monitored by doctor or family. In any critical condition the SMS is send to the doctor or any family member. So that we can easily save many lives by providing them quick service.

III. WORKING METHODOLOGY

In this thesis we are used most important apparatus used a NODEMCU-ESP8266 LONIM, DHT-SENSOR(11) and also used the software is arduino IDE, ADAfruitIO. Here NODEMCU is used as microcontroller and a media to connect to internet. DHT-11 is temperature and humidity sensor to sense body temperature and other humidity and external parameter. Also other sensors can be combined in series to develop complete health monitoring system. We have used arduino IDE to program NODEMCU via serial port. Also we have used ADAFRUIT-IO to create a cloud trigger by used cloud. In my work, Remote health monitoring system which is in the form of a wrist belt which will be used by patient. First of all the data of human body (temperature, humidity) is sensed by DHT- SENSOR(11). Now here, Adafruit software is used to connect it to the internet so that Arduino can display the sensed data. Then the data readings received by the arduino will be compare with the data of cloud which is initial data of human body.Now check the compared values, there may be two cases:In first case, If the data received from arduino is differ from the data saved in cloud, it means the human body temperature/humidity is fluctuate. So the automatic SMS sent to the doctor by IFTTT process. After receiving the SMS of data fluctuating, the doctor then call to the patient and alert him about his health and also can suggest medicines. In such a way we are alter monitor once health and can provide better recommendation and health tips with fast medical action. In second case, if there is no change in comparisoned value, it means there is no problem in pateint's health.

IV. FEATURES AT ADA IO

We all receive a alter knt on doctors guardian phone as soon as cloud condition get triggered. In such a way we are alter monitor once health and can provide better recommendation and health tips with fast medical action.

Working Flowchart

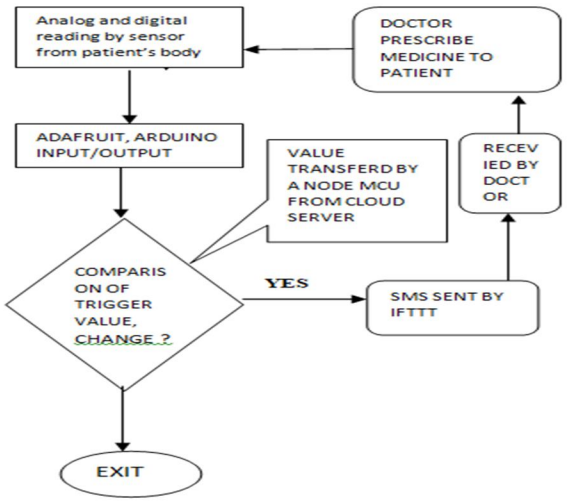
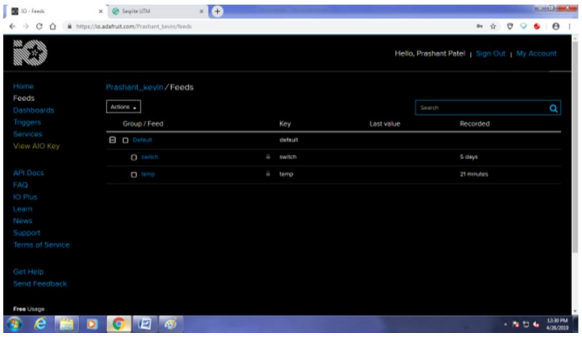
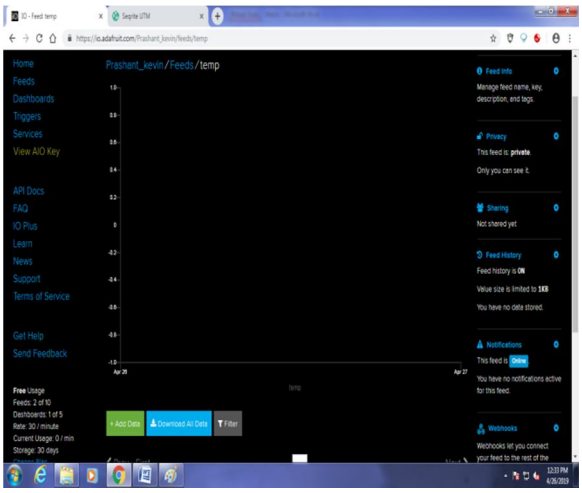


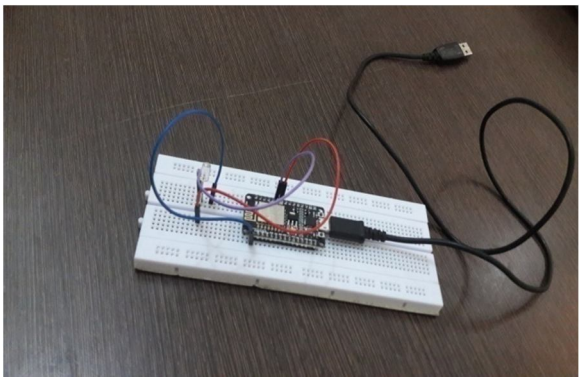
Figure 1: Flow Chart of Remote Healthcare Monitoring System

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V. RESULT







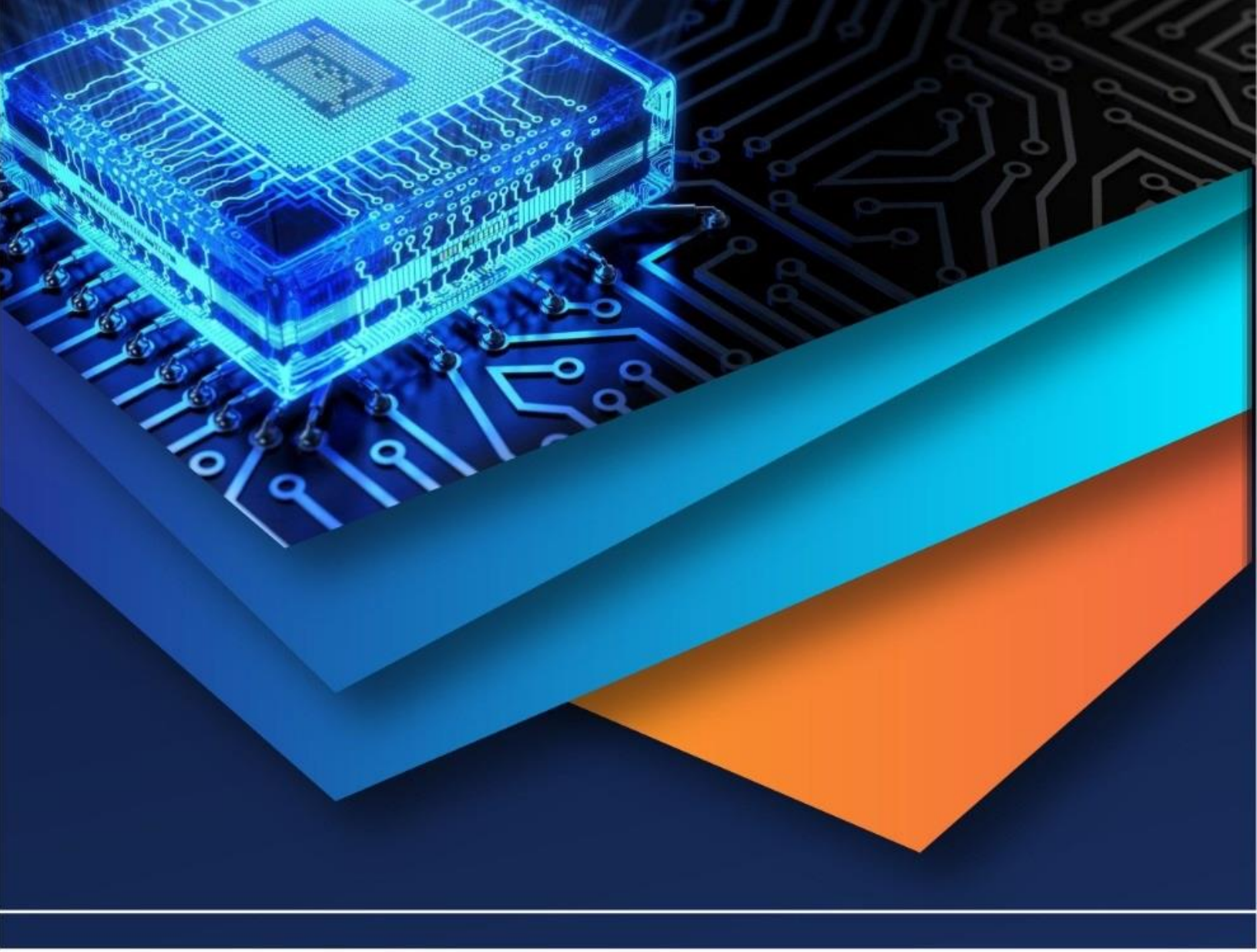
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