ENHANCEMENT OF SMART HOSPITAL THROUGH IOT

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Abstract: With the speedy development of sensible devices and internet of Things (IOT) technology, some traditional business sectors embrace new possibilities, significantly, in the field of Medical, the IOT technology is transforming the landscape and posing high requirements on the hospital resource management. this can be associate IOT system that would be deployed in hospitals for various applications, supports Wi-Fi and Varied knowledge collection methods, uploads the data to the cloud platform for further processing through a secure connection, and feeds back to users in time period through the user interface.

Index terms- internet of Things(IOT) , Cloud Computing, data visualization, ECG Signal

INTRODUCTION

We come across hospitals and NGO"s serving disabled people. Now these people are not capable of full body movement as compared to a normal person. Paralysis is the inability to move muscles on your own and with purpose. It can be temporary or permanent. The most common causes are stroke, spinal cord injury, and multiple sclerosis. In such a situation we propose a system that helps disabled person display a message by just simple motion of any part of his body. Our proposed system works by reading the tilt direction of the user part. This device needs to be mounted on user finger of hand. The user now just needs to tilt the device in a particular angle to convey a message. tilting the device in different directions conveys a different message. In this project, we are monitoring various parameters of the patient using internet of things. In the patient monitoring system based on Internet of things project, the real-time parameters of patient's health are sent to cloud using internet connectivity.

These parameters are sent to are mote Internet location so that user can view these details from many wherein the world. Even though, there are innovative approaches for curing or treating paralysis patients, but the aim of treatment is to help a person adapt to life with paralysis by making the man independent as possible . Where we see a problem with these types of devices that are being developed is that they are very large and expensive machine. They seem to be only available in hospitals and notable to be used at the patients home or at their convenience.

I.   LITERATURE SURVEY

In [4] a WSN giving patient confinement , following , and checking administrators inside nursing foundations is introduced. The confinement and following motor depend on the got flag quality marker (RSSI) and molecule channels while biaxial accelerometers are utilized to group the development of patients.

In [5] authors consolidate together wearable tags and encompassing tags to build up completely uninvolved RFID framework for observing the conditions of the aged individuals among the night.

In [6] RFID Locator an online application created at the University of Fribourg as a software team through Sun Microsystems, has been proposed to enhance the nature of the hospital management.

In [8] a remote limitations organizes ready to track the area of patients in indoor situations furthermore to screen their physical status is displayed. An area mindful WSN to track patients utilizing an extending calculation in light of environment and versatility versatile channel is proposed.

In [9] an entirely total venture giving patients checking and following is WSN4Qol.

In [10] there is a Bluetooth empowered Wireless Body Area Network that senses hubs to nearby authority which sends estimation report .

In [11] there are procedures that are joined to the screen the health condition of the patient and give limited successful social insurance management. It makes the utilization of the WSN gadgets to gauge Photo Platysma Gram(PPG) and convey it to the server.

II.   PROPOSED SYSTEM

The core objective of this project is that the style and the implementation of a sensible patient following system. The sensors area unit embedded on the patient body to sense the temperature and heartbeat of the patient additional sensors area unit place reception tool sense humidness and therefore the temperature of the space wherever the patient is staying. These sensors area unit connected to a sway unit which calculates the value of all the four sensors. These calculated values area unit then transmitted through a IOT server to the bottom station. From the bottom station the values area unit then accessed by the doctor at another location. Therefore based mostly on the temperature and heart rate values and the area detector values the doctor would decide the state of the patient and acceptable measures are often taken. We will create associate degree IOT based health observance system that records the patients heart beat rate and additionally sends an email / sms alert whenever those reading goes beyond critical values. Pulse rate and body temperature reading are recorded over mobile so that patient health are often monitored from any place within the world over web. A panic will be connected so that the patient would press it on emergency to send email / sms to the relative.

In the healthcare process there are many formalities before going to meet the doctor. The traditional or manual way of completing this process is very difficult. Patient suffering from high Blood Pressure(BP) or other diseases get tensed and stress out. Hospital day based activity architecture for the IOT High level architecture.
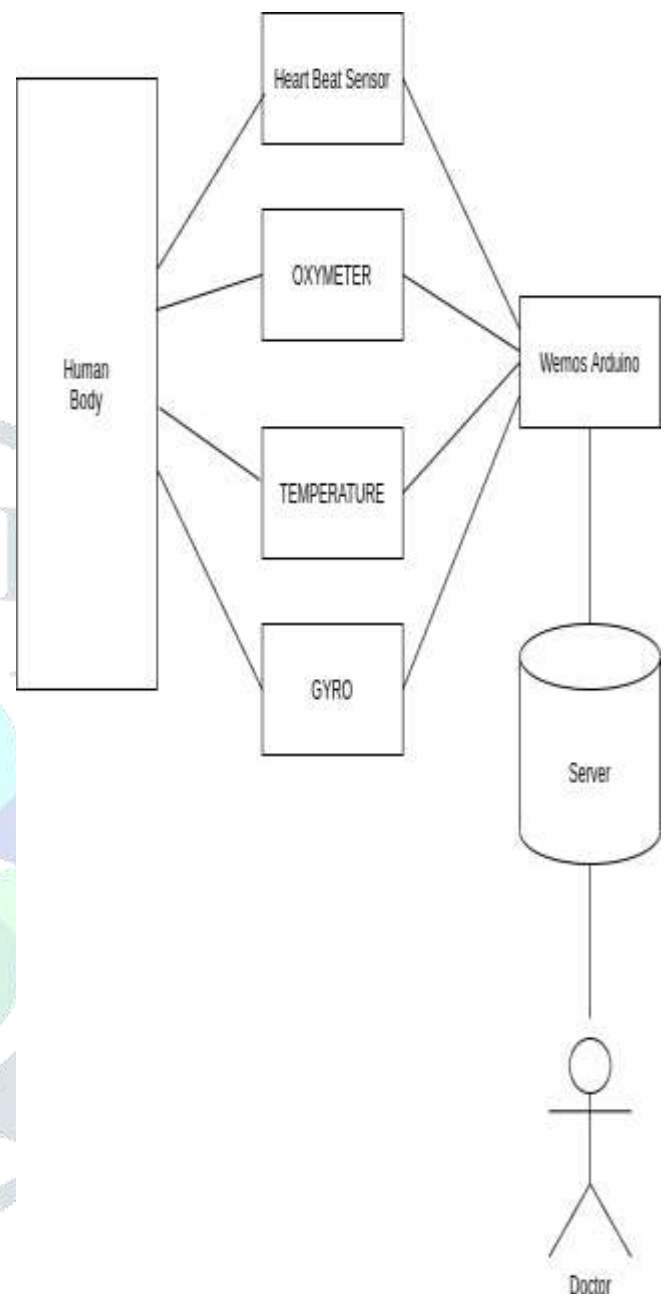

FIG: SYSTEM ARCHITECTURE

III. CONCLUSION

A set of intelligent hospital IoT system is introduced to provides the various real-time user interface for users to obtain data feedback. For healthcare scenarios, authenticity and reliability of network connections and confidentiality of data are important issues in the Internet of things. In this system, the data will be uploaded to the cloud through a reliable connection established with the local to avoid potential risks. Through this system, the operation and management efficiency of the hospital scene can be greatly improved while ensuring the security of user information, and some professional medical information processing modules can be integrated to realize the prospect of the smart hospital ecology.

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