



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

“REMOTELY PATIENT HEALTH MONITORING WITH HEART RATE, BLOOD PRESSURE & TEMPERATURE MONITORING IOT BASED APPROACH USING AMAZON CLOUD “

Pranali Tirpude, Achal Meshram, Apurva Thaokar, Bhavika Ghormade, Roshani Gajbhiye

B.E. Student, Department of Computer Science

Prof. Ashish Palandurkar

Assistant Professor, Department of Computer Science

ABSTRACT

Many patients die all over the world due to lack of timely and proper treatment. Many people in rural areas faces many health problems. Even if people contact with the doctors but the doctors are not able to attend the patients on time. In this Covid-19 situation many people are avoiding to go the hospitals due to virus threat. This problem causing lack of treatment and may lead to the death or serious problems.

The Internet of things is progressively permitting to coordinate gadgets fit for associating with the Internet and give data on the condition of health of patients and give data continuously to specialists who help. The main aim of this 'Patient Monitoring System' is to build up a system fit for observing vital body signs, for example, body temperature, heart rate, pulse oximetry. The System is additionally equipped for fall detection and sleep pattern analysis. To accomplish this, the system involves many sensors to screen fundamental signs that can be interfaced to the doctor's mobile or the web. The gadget will exchange the readings from the sensor to cloud remotely and the information gathered will be accessible for analysis progressively. It has the capacity of reading and transmitting emergency signs to the cloud and then to doctor's web portal or to Doctor's Smartphone. These readings can be utilized to recognize the health state of the patient and as an alert system against the emergency health condition. IOT based patient health monitoring system will enable the doctors to view the patient online.

INTRODUCTION

Internet of things is a network of physical devices that are embedded with software, sensors and network connectivity to collect and exchange the data. The main part of our project is to sensing and data conditioning system to acquire the accurate heart rate, blood pressure and temperature readings. Also symptoms can be send along with other parameters. This system will provide security to the patient's data. In this system we will be providing ID and password to the doctors so that no other can access the data of the patients other than that doctor. In this project we are using Raspberry pi board as the medium of the sensor input devices. Data or information of the patient will be send to the Amazon cloud real time. As Amazon cloud is the best and most secure cloud service platform. Once the data id send to the Amazon cloud doctors can go through all the current health parameter of the patient. This system will be very effective to provide proper and timely treatment to the patients mainly where doctors can not reach on time.

PROPOSED METHOD

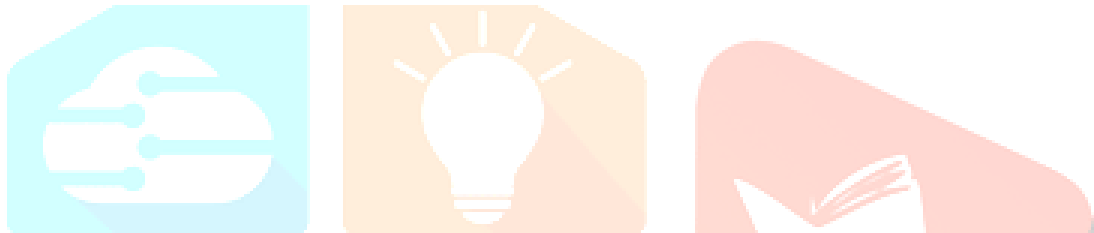
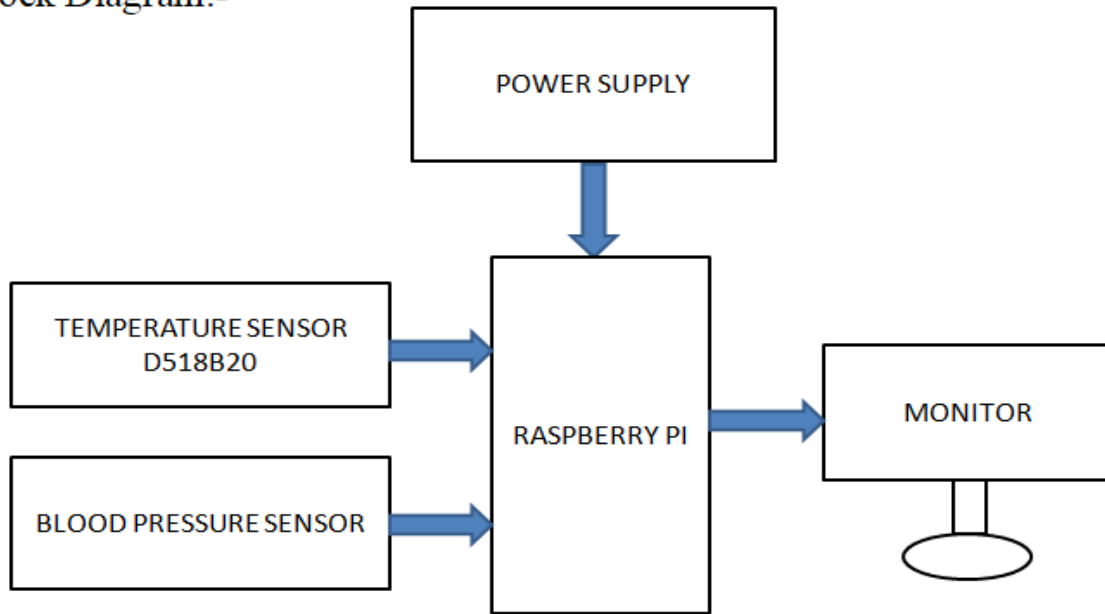
IOT plays an essential role in many Internet of things plays an essential role in many applications like health monitoring system, remote sensing and disease, it is to build and design a sensing and also data conditioning system.

In this project we are using more stable and accurate sensors to measure blood pressure, heart rate and temperature. We are using IOT in our project. In our project we are using Raspberry Pi board as the medium of the sensor input devices which are attached to patient and send the physiological parameter value of the patient to doctor's computer through internet. So the necessary treatment can be given immediately by doctor to the patient. Data or information of the patient is send to the Amazon cloud real time. Amazon cloud is the best and most secure cloud service platform. It provides servers, storage, networking, remote computing, email, mobile development and security. In this project we can also send the symptoms of the patient along with the other parameters. Once the data is updated on the Amazon cloud doctors can go through all the current health parameters of the patient. Also doctors will be provided ID and Password to access the data or I formation of the patients.

Modules we are using in this project are:-

- Raspberry Pi 3 board
- Blood pressure sensors
- DS18B20 temperature sensor

• Block Diagram:-



```

program1.py x ba
File Edit Tab
pi@raspberrypi
Enter your pat
Enter your pat
This is the pa
Achal Meshram
('Patient Bed
SYS : 107
DIA : 075
PULSE/MIN : 09
TEMP IN 'C : 3
TEMP IN 'F : 8
Enter your oth
('\npatient ha
  
```

FUTURE SCOPE

- This system very helpful for rural area and for provide better treatment to patient remotely we can send alert Email whenever patient reading send on Amazon Cloud.
- In emergency doctors can treat patient remotely with the help of reading which is updated

on Amazon cloud.

- This project also help to recommend the medicines online if doctors can not reach on time.
- This can save time and will lead to proper treatment with the help of specialized doctors.

REFERENCES

1. Mahmud S, Lin X, Kim J-H. Interface for Human Machine Interaction for assistant devices: a review. In: 2020 10th Annual computing and communication workshop and conference (CCWC).IEEE; 2020.
2. Acharya AD, Patil SN. IoT based health care monitoring kit. In: 2020 Fourth international conference on computing methodolOgies and communication (ICCMC). IEEE; 2020.
3. Ayon SI, Islam MM, Hossain MR. Coronary artery heart disease prediction: a comparative study of computational intelligence techniques. IETE J Res. 2020.
4. Lin X, Mahmud S, Jones E, Shaker A, Miskinis A, Kanan S, Kim J-H. Virtual reality based musical therapy for mental health management. In: 2020 10th Annual computing and communication workshop and conference (CCWC) IEEE; 2020.
5. Hasan M, Islam MM, Zarif MII, Hashem MMA. Attack and anomaly detection in IoT sensors in IoT sites using machine learning approaches. Internet Things.2019

