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IoT based Heart Attack Detection and Monitoring

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***Abstract:** In our project that's IoT based heart attack detection and monitoring it's helps to tell if a someone is close to have heart attack. The heartbeat level is detected by our system which informs us the heartbeat level upto the certain limit so that it may not fall. Thus this system simply can give the idea about patient heart rate whether it is high as well as low it gives us alert message on LCD display and it also gives us alert message through wi-fi on the internet.*
***Keywords:** IoT, Heart beat Sensor, Arduino*

I. INTRODUCTION

Here in our system we are using the heartbeat sensor where the used sensor that allow to detect heart rate of person. afterward first the sensor is interfaced to the microcontroller that permits checking vital sign reading and transmitting them over internet. The user may set the his furthermore low levels of heartbeat limit. After setting these limit the system start monitoring as soon as patient heart beat goes above the certain limit ,the system sends an turned in to the controller which them then transmit then over web and alerts the doctors furthermore as concerned users.

II. PROPOSED SYSTEM

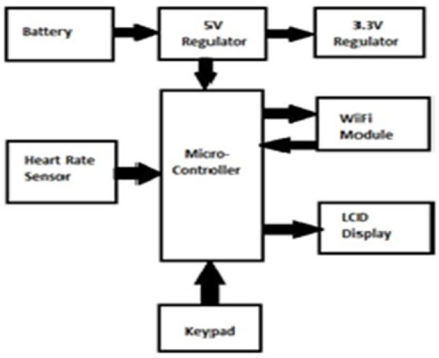

FIG.1 BLOCK DIAGRAM OF PROPOSED SYSTEM

The Block Diagram Consists of -

1) 5V Regulator.
2) Battery.
3) 3.3V Regulator.
4) Microcontroller.
5) Heart rate sensor.
6) Wi-Fi module.
7) LCD display.
8) Keypad.

This system consists of two circuits:

a) Transmitting Unit.
b) Recieving Unit.

During this method it makes use of heartbeat sensor to go loking out this heartbeat level and display it on LCD screen. Here the transmitting section encompass of AVR family microcontroller which is to be interface to LCD screen. The transformer powers the transmitting circuit. The recieving circuit consists of AVR family microcontroller, RF Reciver and a Transformer. In addition the reciver circuit comprises the buzzer in the LED light in order to alert the person.

III. AIMS AND OBJECTIVE

A. AIMS

To aim of this project by using IoT to the design and develop a device that can sense the heart beat of the person where the sensor is interfaced to the microcontroller that allows checking heart rate reading and transmitting them over internet.

B. Objectives

In this system with the help of IoT heart attack can be detected and life can be saved. Also this system help old edge people who are more likely to suffer from heart diseases. This system is also avilable for measuring the blood pressure.The alert system helps to notify the doctors or the people nearby above the heartattack.

IV. SUMMARY OF THESIS CONTRIBUTIONS

Based on case studies, Nowdays various people are misplacing their life inferable from heart assault and deficiency of restorative thoughtfulness regarding persistent at right.. The heartbeat sensor will permit checking heart beat reading and transmit them over the online. Thought depends on the checking of the patient that's finished by the specialist persistently without really visiting the patient. during this paper, IoT is popping into a motivating stage for a few administration and applications. The heart beat sensor will permit checking heart beat reading and transmit them over the web.

V. IOT

Few days back Internet of things was the foremost recent technique and still unknown to the quality people but now it's emerged in almost every field to make life easier. From Home appliances to public infrastructure, in every field it's has become popular.

A. Arduino

Arduino is an open-source prototyping platform. It's supported on easy-to-use hardware and software. Arduino boards are able to read inputs and outputs. Here you'll be able to also tell your board what to try to by sending a group of instructions to the microcontroller on the board. To try to to so you utilize the Arduino artificial language which relies on Wiring, and also the Arduino Software (IDE) is relies on Processing.

B. Microcontroller

1) It is a smaller computer.
2) Has on-chip RAM, ROM ,I/O ports.

C. Heartbeat Sensor

1) Heartbeat sensor is one of the most important part of our system. When the heart beat it pumps blood in your artery of your fingertip. This causes change in blood volume which is sensed our heart beat sensor.
2) As the blood flow changes the intensity of light following on photo diode varies and on board instrumentation provide PPG waveform. This waveform synchronous with heartbeat.

D. Wi-Fi Modem

The ESP8266 Wi-Fi module is used. it is the self contained SOC and TCP/IP protocol stack provides the microcontroller to access over the WI-FI network. The ESP8266 is the capable of either hosting application or off loading all Wi-Fi networking functions from another application processor.

E. LED

LEDs are semiconductor devices are made out of silicon . here this LED are used as a output devices. after checking pulse it gives us a alert message by blinkig their respective color means red color for Critical Blue color for normal when hear beat level is goes to high or low with reference to the past set limit.

VI. CONCLUSIONS

In this we attempted to proposed total paper on detecting heart attack and monitoring heartbeat of person . The heartbeat of sensor which is that the interface with the microcontroller senses the heartbeat of person and transmit over internet using the Wi-Fi module. System is that the allow to setting limits person can start the monitoring the heartbeat and whenever persons heart beat goes the above certain point they will alert the high heart beat and be the possibilties about the heart attack. Also alert lower the heart beat.

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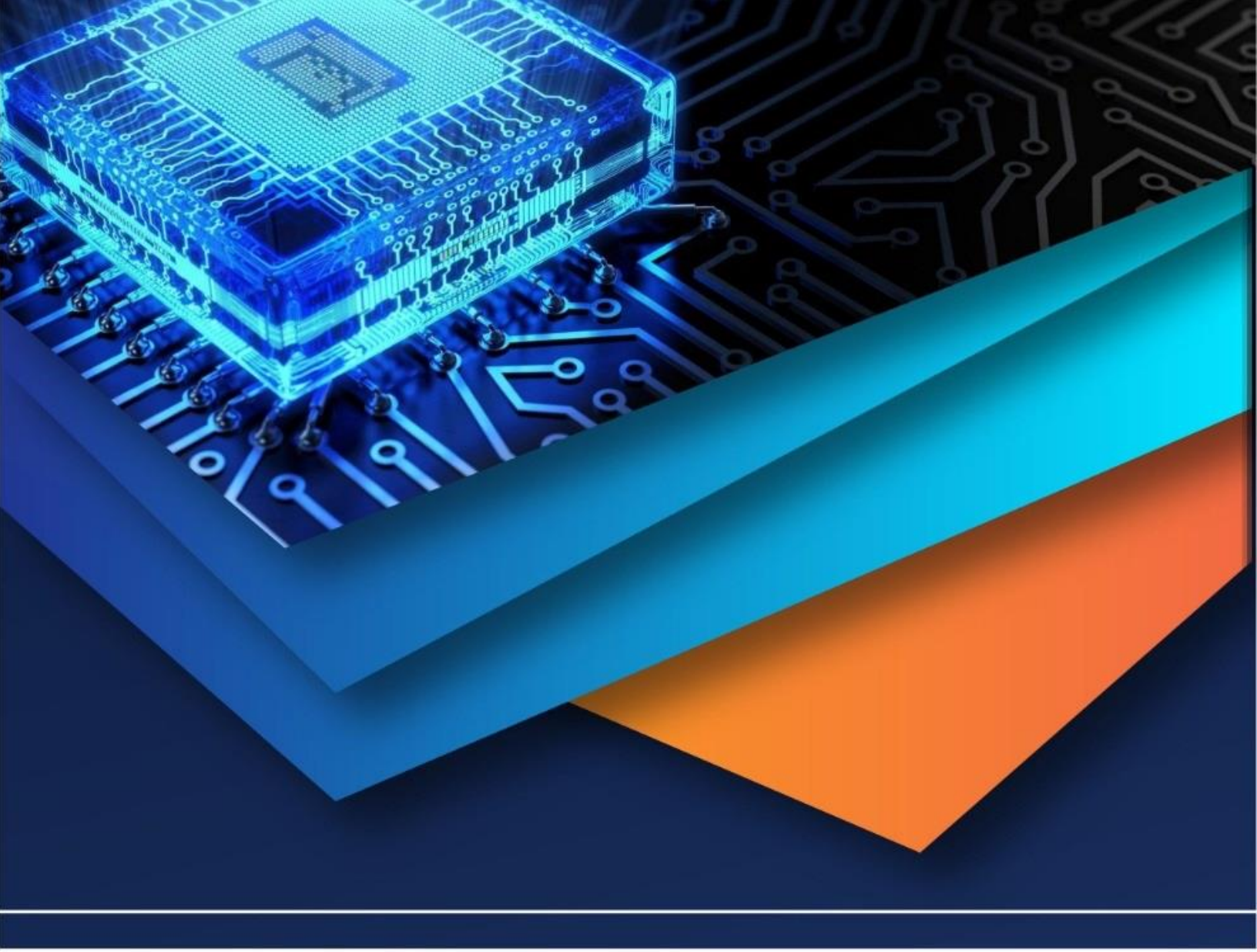
REFERENCES

[1] www.google.com
[2] www.internet of things.com
[3] www.wikipedia.com
[4] https://easternpeak.com/blog/iot-in-technology-use-cases-for-smart-farming-and-4-challenges-to-consider/



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