Smart Ambulance System using IOT

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ABSTRACT: India is one of the populous international locations within the international. Due to over populace day my day accident cases are increases. For each one minute a dying arises because of coronary heart assault. To save a lifestyles is a precious. The concept here is to offer an is wise ambulance system the usage of IOT a few sensors and microcontrollers, GPS and a few different components ; it'll sense the frame circumstance like temperature, listen beat, pulse of the specific man or woman .If the situation of the affected person is crucial an ambulance is allocated to that place through Google map so the docs can see the detail of the affected person active in the ambulance it self. Also we positioned one buzzer in clinic so that when the ambulance is come close to to health center then buzzer is get on in order that the ward boy will equipped to get the patient out from the ambulance.

KEYWORDS: IOT,Smartambulance,Heartbeat sensor,Temperature sensor,Pulse oximeter sensor

I.INTRODUCTION

In this system we are monitoring the ambulance with admire to clinic, while the ambulance is get close to to health facility, the buzzer will activate and ward boys get alert and get prepared for the ambulance. Our proposed device is to layout a device wherein the heart beat sensor will sense the heart beat of the affected person and temperature sensor will sense the frame temperature of the affected person. After sensing all the body detail sensors will ship respective records to the microcontroller. After microcontroller will hook up with the IOT. In the collaborated health facility the affected person's coronary heart fee and frame temperature records will ship via net. In medical institution the Respective scientific physician will non-stop screen affected person"s fitness system. If that patient will be in crucial situation then an alert message will alert the medical doctor after which he's going to allot an ambulance.
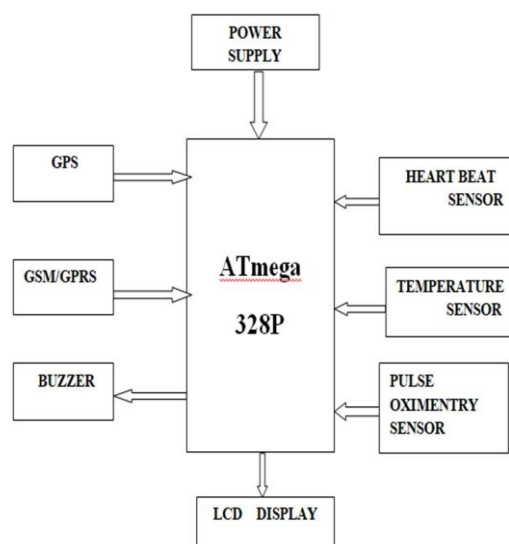

Fig.1-Block diagram

To attain on that location inside the time motive force use Google map with the assist of the internet site. With the assist of Google map driver wealthy to that region on Time and take the affected person into the ambulance then inside ambulance it self we measure heartbeat ,pulse, BP. Temperature and all of the different matters and experience it to clinic internet site so doctors will short action on that patient .

II. SYSTEM OVERVIEW

Fig.2 is the circuit diagram of smart ambulance gadget the use of IOT. The heartbeat sensor gives an smooth manner to look at the feature of the heart. This sensor is used to reveal the blood thru the finger. As the coronary heart offerings blood through the blood vessels within the finger, the blood amount in the finger modifications with admire to time. Heartbeat sensor shines a light lobe via the finger to measure the mild communicates to LDR. The signal gained from the LDR is exchange by way of the amplifier and could be clean and supplied to theADC.

The temperature sensor can be sensed with the assist of the LM35 sensor. This series is correct incorporated circuit sensors, whose output voltage is linearly related to the celcius temperature. A station, that is pressed without delay will aware exceptional station and therefore will now not put off for heartbeat to exit of the normal range.

The ATmega328P microcontroller is a low power CMOS 8bit microcontroller based totally at the AVR decorate RISC structure through executing effective guidance in a unmarried clock cycle,The ATmega328P achieves throughputs drawing near 1MIPS in step with MHz

The term GPS stands for Global Positioning System is a space based Global navigation satellite tv for pc device that gives steady vicinity and facts about the time and records approximately the time in all-climate situation shape everywhere on the planet while and in which there's a loose line of website online to four or more GPS satellite.

The term GSM stands for "Global System For Mobile Communication" controls as the sector"s most significantly used mobile phone technology. Cellphone used a GSM network by way of searching for cellular phone towers within the close to vicinity.

Designing of this gadget the usage of GPS and GSM used a wireless system for tracking the area of the ambulance and looking at the heartbeat rate and body temperature of the affected person. The biomedical sensor are used within the proposed system are sensor and beat. The temperature sensor is used to measure thetemperature of the body in addition to heartbeat sensor is used to degree the pulse rate of the affected person.
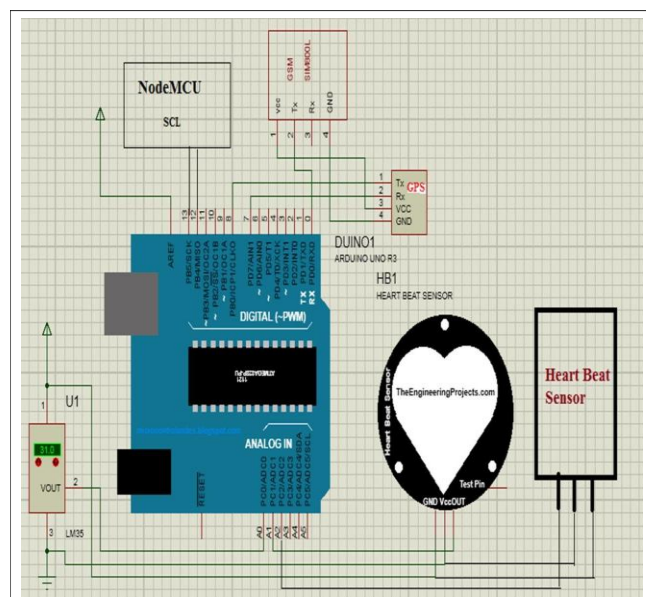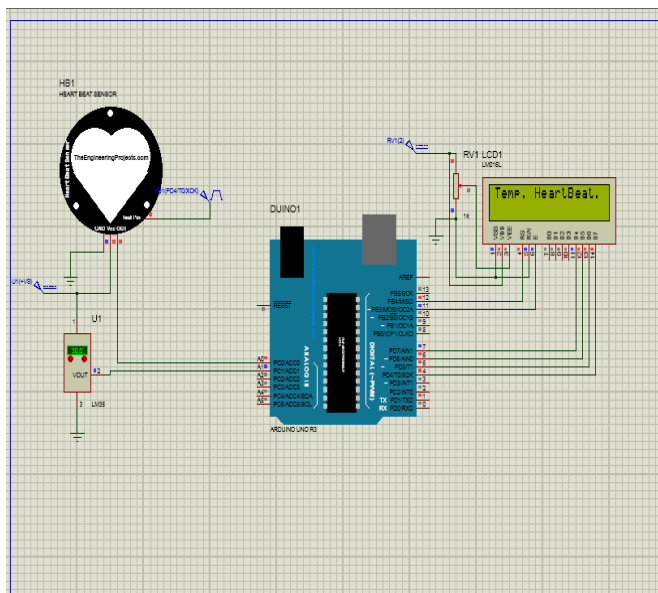

Fig.2-Circuit diagram

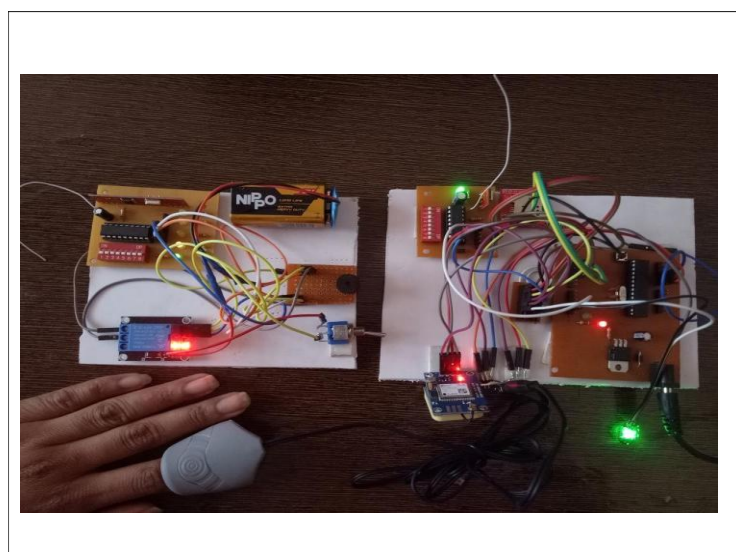Fig.3-Simulation

III.SYSTEM IMPLEMENTATION & RESULT

Fig.9-System implementation

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Algorithm:-

Step 1:Start.

Step 2: Initiative GPS

Step 3: Turn on ATmega328P.

Step 4: Turn on Sensors.

Step 5: Get GPS latitude and longitude.

Step 6: Compare latitude and longitude of hospital.

Step 7: If comparison is true then turn on buzzer.

Step 8 : Get Sensor data

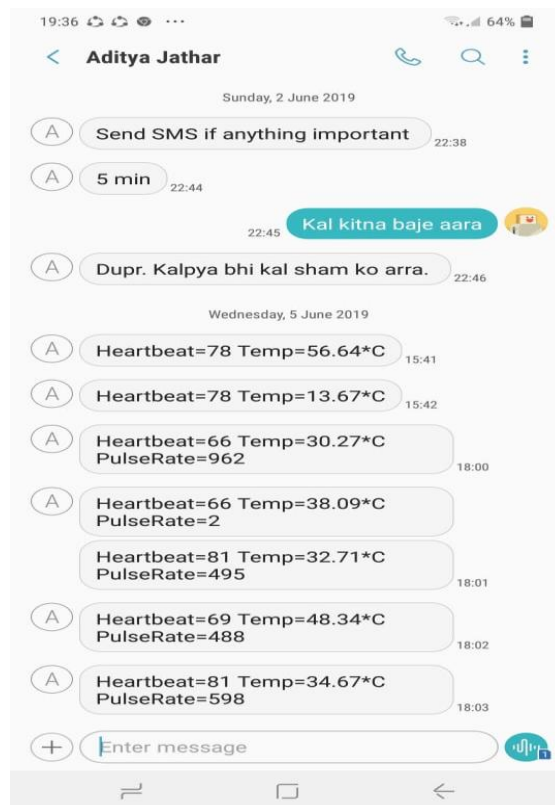Step 9: Send sensor data through sms.

Step 10: Stop.

Fig.10-Result

IV. CONCLUSION

Existing system is studied and reveals out some problem is there . To overcome limitation of present machine we purposed a brand new machine is. This proposed device will will increase the overall performance and reliability of ambulance system. Also proposed device is facilitating with mobile tool and real time records for precise performance and reliability. This will overcome the limitations such with reminiscence, price of machine, performance, power intake, reliability, compactness and suitable appearance. With such gadget medical doctors can know body parameters of the sufferers, place of ambulance and device will alert the health center team of workers, without any trouble. Hence need of such device in our contemporary busy lifestyles is very essential.

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