Wireless Body Sensor Network Using Wearable Health Monitoring Gadget

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Abstract:- In today's times the diseases are increasing. Due to the number of diseases, many lives are lost without being able to know the condition of the patients. For example: Covid -19. Covid -19 is a disease that can spread from one person to another person through in air. The Impact of this diseases reduces the oxygen level in our body, other than lung damages and it can make breathing difficulties in our body. Many patients developed without being able to detect the change in our body apart from that many lives have been lost and now due to the impact of covid-19.The lives of people worldwide have been lost. In our project using WBSN network. The WBSN Network to easily get the measure of the blood pressure and oxygen level of an infected patient. Even if there is a slight change in the body temperature Or oxygen level of the affected patients information is immediately send to the doctor through the IoT. It can also be used to easily track the location and monitoring the status of an affected patient.

Keywords :- WBSN Network, Covid-19,IOT, Track and Monitor.

I. INTRODUCTION

WBSN stands for wireless body sensor network. It play a big role of medical field.WBSN network send all the information for what happen in the patient body is accurately sent to the doctor through the internet by installing sensors inside and outside of the affected patient body. It can also Monitoring and track the location of the patient condition through sensor connection of the Atmega8 Microcontroller. Another addition of in this project it can also has an attached LCD display and send the information to alert through Wi-Fi connection. You can also know the location of the patient through the internet. The patient condition is any changes immediately taken to the hospital by an ambulance.

➢ *Objective*
This paper helps to monitoring the health issue of the person and continuously intimating the information
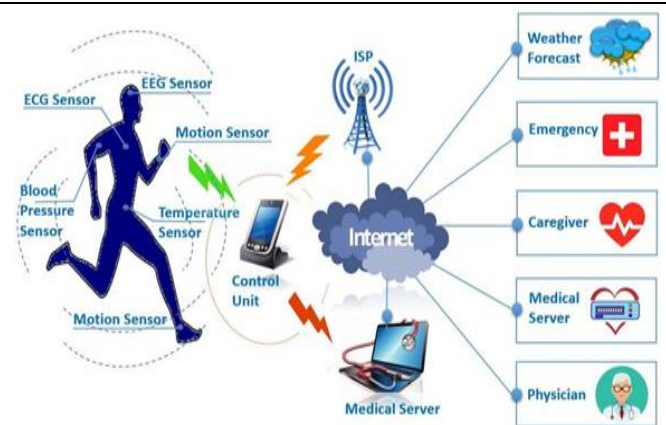

Fig 1 Sample diagram

II. EXISTING SYSTEM

In the previously invented method used in sms the information was sent to the doctor through in sms in this method the nurse went directly to the affected .After take a measurement of the blood pressure, Temperature, oxygen level, blood flow, ECG,heart rate etc. The affected patient is treated only after the doctor conform the information.

In the next method, WBSN Network using medical implant band. The sensors are attached to the patient body internally or externally to detect the patient physical condition and send the information to the doctor immediately through IOT. It uses a medical implant band so it can only be used in a hospitals.

III. METHODOLOGY

WBSN Network can be divided into several categories .They are heart beat, blood pressure, Temperature, sugar level, blood flow, EKG etc.

Heart beat: heart beat can be monitored through in heart beat sensor. Heart beat sensor is a measure of heart beat based on a person age. Normal human heart beat rate in 72 beat per second. This is a ten-year old boys heart rate of 60 to 100 per seconds by sending electrical activity to be the heart through

the heart beat sensor. heart beat sensor can easily detect the bleeding under blockage in the heart.
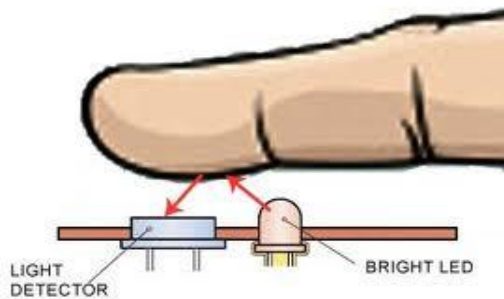

Fig 2 Heart beat sensor diagram

A temperature sensor detect the temperature around the patient and give us information in Celsius. For example: rainy season. A person's temperature rises slightly during rainy seasons. Normally one person temperature is 96 degree Celsius. Fever person temperature is above 96 degree Celsius. A patient temperature depend on surrounding only.

The blood pressure sensor is used for calculating the blood pressure of the human body. The blood pressure is not always in stable. It can be varied at any time. Sometimes the blood pleasure is low or high. It's depend on the person blood pressure level. Using the WBSN Network a gadget is implanted in the body of an affected patient and all the information what is happening in the body of the infection person details sent to the doctor and his/him relative through the internet and through the sensors element of the gadget. IoT immediately send the information to the doctor and his or him relative even if there it is a slide change in the patient status can be monitored and traced through in IoT.

IV. EXPERIMENTATION

The purpose of this gadget is to protect the human life. The information of the affected person detail is safe and secure. Even if an affected person is stuck in any difficult places. IoT can detect his or him location through heartbeat, blood pressure, sugar level, oxygen level, blood flow rate or blood pressure level this gadget can make a huge different in the patient life and increasing his or him life days through this gadget

Fig 3 Overall Circuit diagram

➤ *Advantage:*
- Easy to use.
- Maintenance easy.
- Low power consumption.
- Low weight.
- You can take it anywhere.

➤ *Future Scope*
The development of technology is always new and come back again but it can small change in size power ,usage and energy level etc. This gadget use a Wi-Fi communication system. May be the future work of the project use a LIFI communication. lt is give a better response and result lifi communication is a visible light signal communication. Using Li-Fi communication you can send the signal in any direction and it is used in both directions of the transmitter and receiver. Instant of Wi-Fi communication used in this gadget. We can see a better future if we use Lifi communication.

V. CONCLUSION

A person's role in a family carriers a huge responsibility. If the wise any disease in the body of the older person in a family. we cannot see the effect from time to time. Using this gadget we can easily see what the physical condition his/her and the person location can be easily track it by using . IOT play a important role in our day to day life of the medical field and it is very safe and secure the patient life.

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