HEALTH MONITORING SYSTEM

Team

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Objective:-

To design an **IoT Based Patient Health Monitoring System**
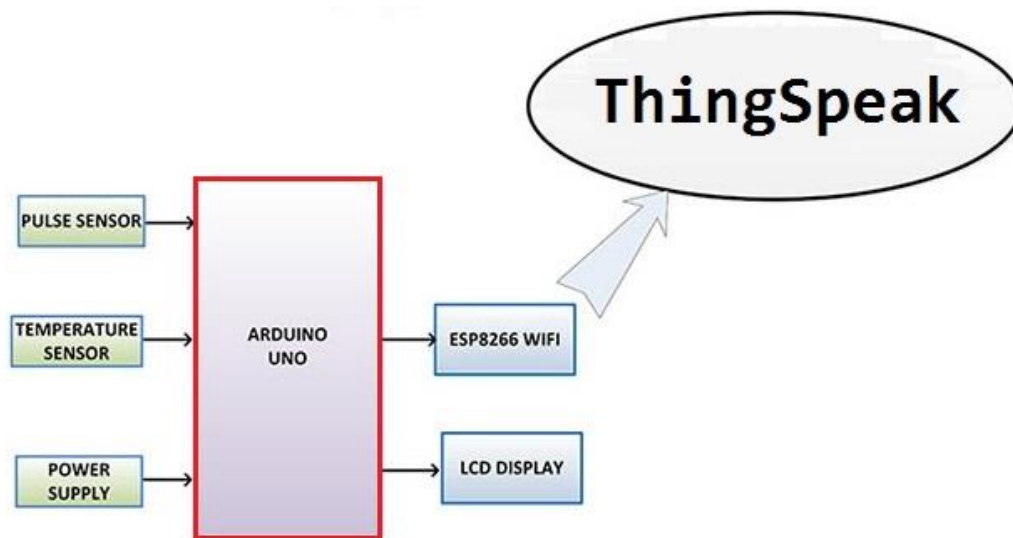
Technical Details:-

Hardware Specifications:

- Arduino Board
- ESP8266-01 Wi-Fi Module
- LCD Display
- Potentiometer
- Pulse Sensor
- Temperature Sensor
- Resistors
- LED
- Connecting Wires
- Breadboard

Software Specifications:

- Arduino Compiler
- ThingSpeak Tool for IOT

Block Diagram:-

Innovativeness & Usefulness

Monitoring your beloved ones becomes a difficult task in the modern day life. Keeping track of the health status of the patient at home is a difficult task. Especially old aged patients should be periodically monitored and their loved ones need to be informed about their health status from time to time while at work. So we propose an innovative system that automated this task with ease. Our system puts forward a smart patient health tracking system that uses Sensors to track patient health and uses internet to inform their loved ones in case of any issues. Our system uses temperature as well as heartbeat sensing to keep track of patient health. The sensors are connected to an Arduino to track the status which is in turn interfaced to an LCD display as well as Wi-Fi connection in order to transmit alerts. If system detects any abrupt changes in patient heartbeat or body temperature, the system automatically alerts the user about the patient's status over IOT and also shows details of heartbeat and temperature of patient live over the internet. Thus IOT based patient health tracking system effectively uses internet to monitor patient health stats and save lives on time.

Market Potential & Competitive Advantage

The global Internet of Things (IoT) in healthcare market size is expected to grow from USD 72.5 billion in 2020 to USD 188.2 billion by 2025, at a Compound Annual Growth Rate (CAGR) of 21.0% during the forecast period. Key factors driving the growth of the IoT in healthcare market are the rising focus on active patient engagement and patient-centric care, growing need for adoption of cost-control measures in the healthcare sector, and growth of high-speed network technologies for IoT connectivity, and increasing focus on patient-centric service delivery through various channels.

The recent outbreak of COVID-19 has led IoT healthcare solution providers to quickly render solutions for combatting the rising demand for high-quality services for protection against the virus. The fast spreading of COVID-19 has taken over the entire healthcare ecosystem from pharmaceutical companies, drug makers, COVID-19 vaccine developers, to health insurers and hospitals. Applications, such as telemedicine, remote patient monitoring, and interactive medicine, along with inpatient monitoring are expected to gain traction during this time.