

Team MediWatch

IoT Based Real-Time Health Monitoring and Alert System

**Main Aim of the Project:** To provide real-time health monitoring and realize an alert system in case of an emergency.

**Team Members:**

1. Sai Sathwik – Team Lead
2. K. Likhitha
3. S. Akshay
4. Rajesh Khatua

**Mentor:**

Name: Dr. M. Shyam Sundhar.

Designation: Assistant Professor.

Experience (in years): 18 years.

Hardware.

**Expected Tech Stack:**

IoT Devices:

* NodeMCU - ESP32
* Sensors: DS18B20, MAX30100

Frontend: Flutter

Backend: Arduino IDE

Location Service: MapBox API

Cloud Services: Blynk

**Description:**

Health is the foundation of a fulfilling life, and regular health monitoring plays a vital role in maintaining and improving well-being. Furthermore, the timely arrival of an ambulance is an indispensable factor in saving lives and improving health outcomes for individuals facing medical emergencies.

The "Real Time Health Monitoring and Alert System" project is a comprehensive healthcare initiative aimed at enhancing patient care and reducing the mortality rate of mankind, especially the elderly people. By continuously monitoring vital health parameters, including heart rate, body temperature, and oxygen levels, our system ensures that immediate medical assistance is initiated, even if the individual is alone at home.

**Novelty of the Solution:**

To address the critical issue of timely response during health emergencies, our project is dedicated to developing a comprehensive health monitoring system. Particularly in situations where an individual is alone and experiences a heart attack or any other life-threatening situations, the inability to contact an ambulance independently further underscores the critical need for swift emergency response. Often, such patients find themselves incapacitated and unable to call for help. In such dire circumstances, every passing moment amplifies the risk of irreversible damage or even fatality.

The primary objective is to automate the process of alerting the nearest hospital. In such cases the hospital can take necessary actions such as dispatching an ambulance whenever a patient experiences a heart attack or any equivalent severe health issue.

**Scope for Commercialization:**

Although smart health monitoring systems automate patient monitoring tasks, their efficiency in clinical settings is still debatable. One such context is the death of people due to not being admitted in time into hospitals when their lives are at risk. The main goal of our project is to bridge the gap between health emergencies and timely medical care, ultimately saving lives and improving the overall well-being of individuals in critical situations.