**GSM & GPS BASED SOLDIER TRACKING & HEALTH MONITORING SYSTEM**

**ABSTRACT:**

Army is one of the most important aspects of any country. It is our duty to equip soldier with better advanced technology. In this proposed system, we are monitoring the soldier’s health parameters such as heart beat rate and body temperature continuously measured and transmitted wirelessly to the control room using GSM and also the exact location through GPS.

Here we are using voltage regulator circuit for power supply, Blood pressure & heartbeat sensor, MQ-7 sensor, temperature sensor, Wi-Fi module, GSM, GPS, buzzer and LCD display these are also the hardware parts of this projects. By using temperature sensor we can monitor the soldier’s body temperature. If smoke is detected due to fire air it is detected by using MQ-7 sensor. With the help of heartbeat & blood pressure sensor we can read the heartbeat & B.P respectively.

In case of dangerous situation, if switch on board was pressed by soldier then through SMS the location of soldier was send to mobile phone. With the help of that exact location, the soldier’s information was send to the military base station. Once we “ON” the heartbeat & B.P sensor it will wait for a response, then whatever heartbeat & B.P may read by sensor that will be displayed on LCD. As we can’t read this continuously because the sensor may pressurized the hand of the patient so we are given the delay of 30sec.for demonstration purpose.

This entire data can be uploaded over IOT through Wi-Fi module. Also the each status is seen to android application through GSM module. Depending on the delay the above cycle is repeated. It helps to minimize the time, search and rescue operation efforts of army control unit. This system enables to army base station to track the location and monitor health of soldiers using GPS module and wireless body area sensor networks, such as temperature sensor, heart beat sensor, etc.

**BLOCK DIAGRAM:**

