**IOT Based Soldier Navigation & Health Indication**

**System**

Literature Review

**Existing System:**

This system includes Wi-Fi module that establishes a base station network and collects important information about soldier health parameters (using temperature sensor and pulse sensor) and location at the base station. GPS monitors soldier's place in the war as well as health parameters that provide soldiers with protection. The temperature, longitude, latitude and BPM output values are observed on the soldier unit's LCD screen. This system is only for observing health status. and current location of soldier on Map. This include Wi-Fi module which is not good for long range internet connectivity. It works in local area network. [1]

This system includes all functionalities that are discuss in above system except Wi-Fi module. This include GSM module which is good for long range internet connectivity. It works in wide area network. This system is only observing current location and health status of soldier through message on mobile. [2]

This system tracks the soldier and navigates between the soldier-to-soldier, such as knowing their distance as well as their health status during the war, which enables the military personnel to take the lead. It uses GPS, GSM, Biosensor, Heart rate Sensor, and Temperature Sensor. [4]

This system consists of two main functions, such as data acquisition from hardware and data transfer through cloud computing. The LM35 temperature sensor, the toxic gas detector, the blood pressure sensor, the accelerometer oxygen level and the GSM to continuously monitor the health status of the soldier are used to relay all information from the above sensors. GPS is used to assess location and orientation in real time. Data from sensors and GPS receivers are analyzed and stored using the Arduino (ATmega328P) computer. [5]

**Our System:**

In existing system there are major problem of communication security. [3] Our system provides reliable communication between based station and soldier, and soldier to soldier. We will increase communication security between nodes. We build a complete web panel and android app for based station with new tools and language. We use GSM module rather than Wi-Fi module. Through this system control unit track location, get health status and also make war strategy for the future.

Reference:

1. <http://www.ijste.org/articles/IJSTEV4I7037.pdf>
2. <https://www.ijert.org/research/soldier-health-and-position-tracking-system-using-gps-and-gsm-modem-IJERTCONV6IS13079.pdf>
3. <https://dzone.com/articles/problems-with-internet-of-things-you-need-to-know>
4. <https://www.academia.edu/33828633/GPS_And_IoT_Based_Soldier_Tracking_and_Health_Indication_System>
5. <https://pdfs.semanticscholar.org/ee0c/d29e111ba766f8e5178be8ad65d4f8e3865c.pdf>