Fig 4.1 - Block Diagram ESP32 IoT SoC Controller is the central unit. Inputs: Battery, MAX30102 (pulse oximeter), Temperature sensor, GPS, ADXL345 (accelerometer), Gas sensors. Outputs: GSM modem (SMS), Buzzer, LCD module, Relay controlling Peltier module.
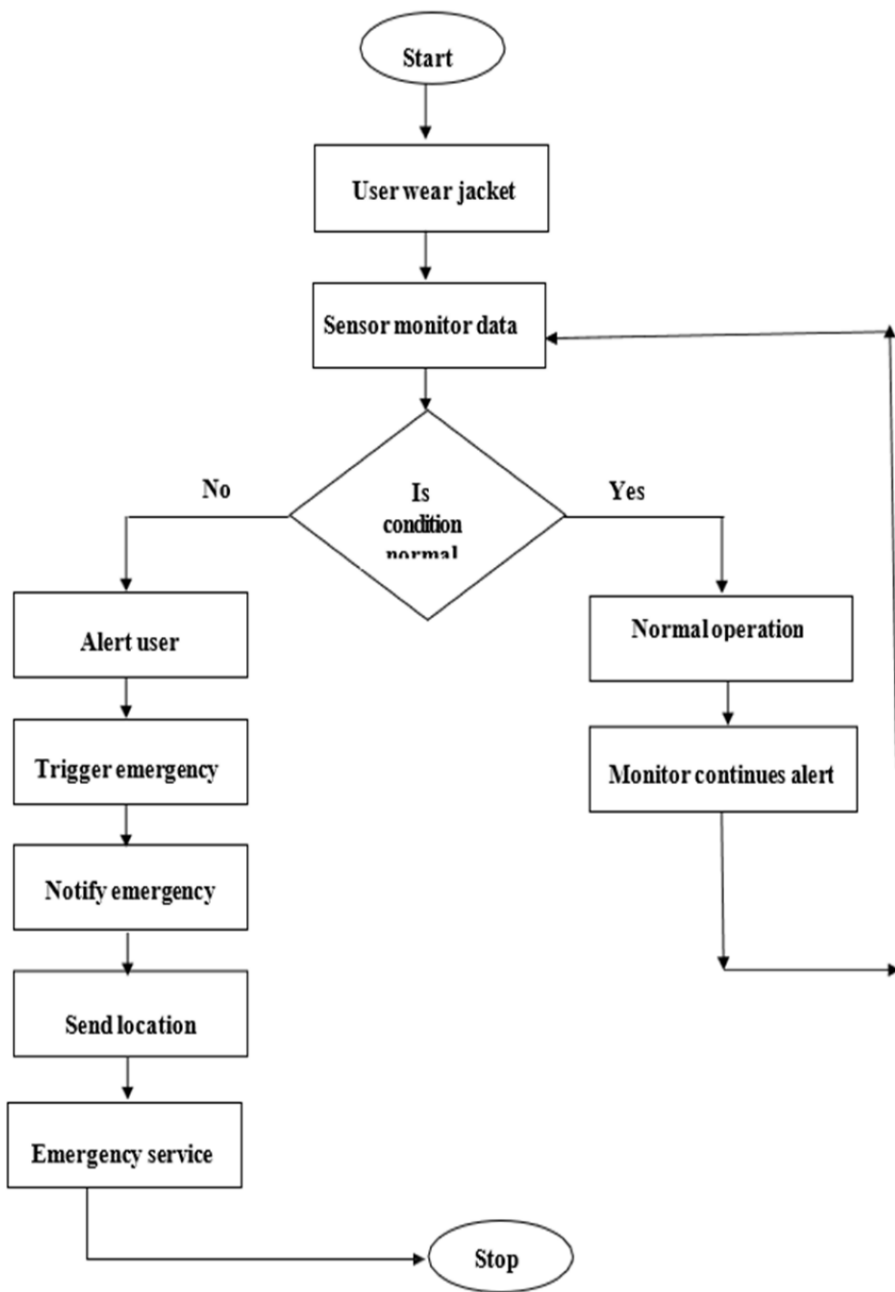
Fig 4.2 - Flowchart System starts when the user wears the jacket. Sensors continuously monitor vitals and environment. If parameters are normal, monitoring continues. If abnormal, the system alerts the user, triggers an emergency, notifies caregivers/emergency services, and sends the GPS location.