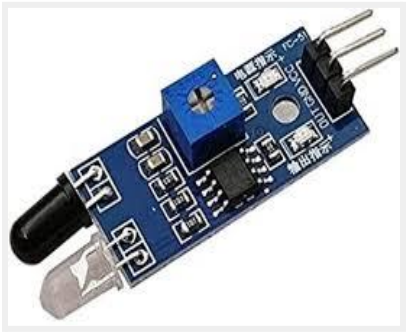
Project Title:- Public Transportation Optimization - IoT

Phase 2: Innovation

Sensors:-



IR Sensor

GPS Module

Definition for Sensors:

IR Sensor:

An infrared sensor (IR sensor) is a radiation-sensitive optoelectronic component with a spectral sensitivity in the infrared wavelength range 780 nm to 50 µm. IR sensors are now widely used in motion detectors.

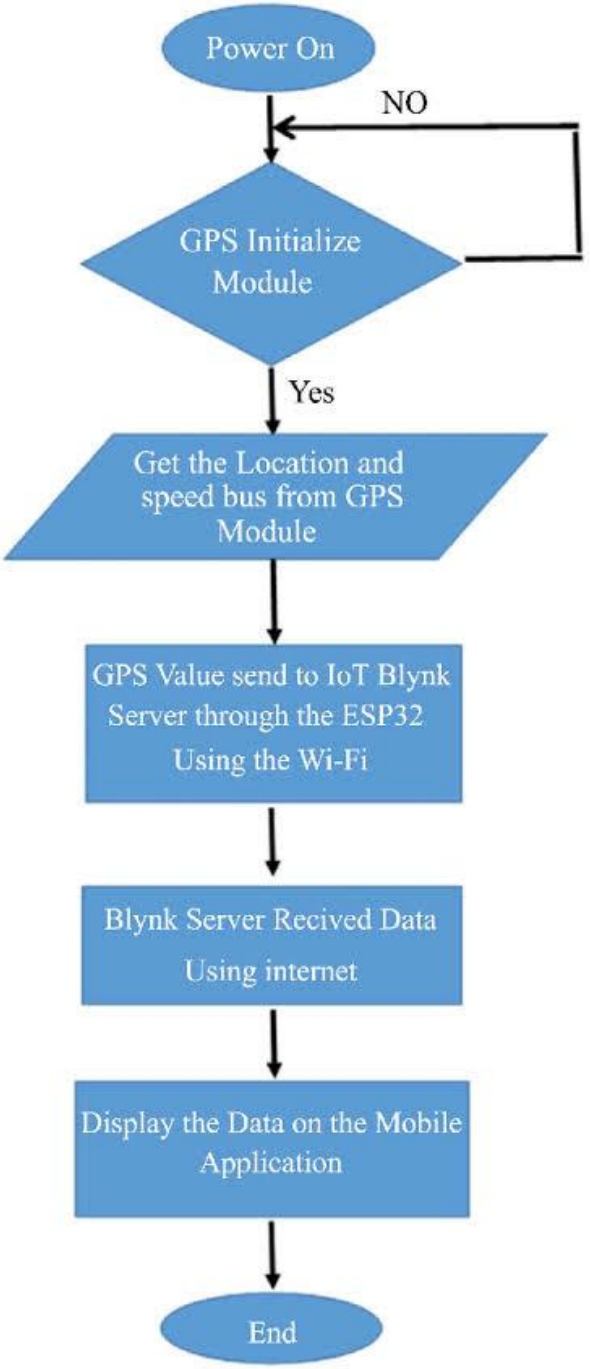
GPS Module:

Global Positioning System (GPS) is a satellite-based system that uses satellites and ground stations to measure and compute its position on Earth. GPS is also known as Navigation System with Time and Ranging (NAVSTAR) GPS.

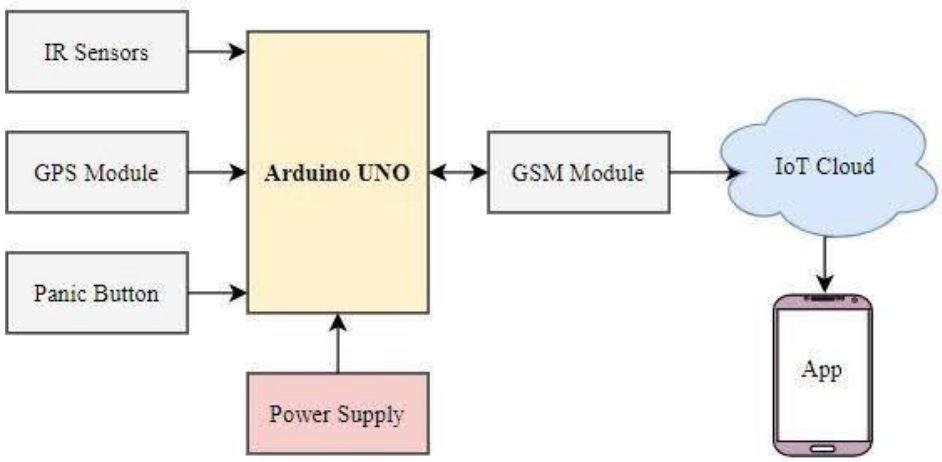
Public Transportation Optimization

Public transportation plays a pivotal role in modern urban infrastructure, providing sustainable and efficient mobility solutions. However, it faces complex challenges such as traffic congestion, environmental concerns, and the need for improved passenger experiences.

Steps For Flowchart:-



Block Diagram:-



Block Diagram Description:-

IR Sensor:

An infrared sensor.It is widely used in motion detector.

GPS Module:

Global Positioning System (GPS). It is a satellite-based system.

Panic Button:-

To allow a person under duress to quickly and silently call for help in the event of an emergency.

Arduino UNO:

Arduino hardware is a programmable circuit board called a microcontroller. Arduino software is an IDE (integrated development environment) through which developers write and upload the code to the microcontroller.

IoT Cloud:

An IoT cloud is a massive network that supports IoT devices and applications. This includes the underlying infrastructure, servers and storage, needed for real-time operations and processing.

Example for Public Transportation Optimization - IoT