**PROJECT TITLE: PUBLIC TRANSPORT OPTIMIZATION**

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**PROBLEM SOLUTION:**

In this fast life, everyone is in hurry to reach their destinations. In this case waiting for the buses is not reliable. People who rely on the public transport their major concern is to know the real time location of the bus for which they are waiting for and the time it will take to reach their bus stop. This information helps people in making better travelling decisions. This paper gives the major challenges in the public transport system and discuss various approaches to intelligently manage it. Current position of the bus is acquired by integrating GPS device on the bus and coordinates of the bus are sent by either GPRS service provided by GSM networks or SMS or RFID. GPS device i s enabled on the tracking device and this information is sent to centralized control unit or directly at the bus stops using RF receivers. People can track information using LEDs at bus stops, SMS, web application or Android application. GPS coordinates of the bus when sent to the centralized server where various arrival time estimation algorithms are applied using historical speed patterns. The project involves integrating IoT sensors into public transportation vehicles to monitor ridership, track locations, and predict arrival times. The goal is to provide real-time transit information to the public through a public platform, enhancing the efficiency and quality of public transportation services.

**METHODOLGY :**

start

**Data Acquisition**

**Data Integration**

**Data Reception**

**Data Transmission**

stop

**Enhanced Public Transportation**

**Public Platform**

**Arrival Time Estimation**

**Centralized Server**

**Real-time Transit Information**