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**A Novel Approach on Transport Information System for Pre-Defined Routes Using Traffic Estimation Framework and Open Layer JS**

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**Abstract**

The need for effective transportation is a must for a country like India with multiple states and languages. But due to the complex system of public transport effective services was not considered a priority earlier. When we come to a new place, a hurdle to reach your designated place due to a lack of information on public transport is higher. This is a nationwide problem. The manual timekeeping methodology also became obsolete by the growth of public transport and with a growing population. Indian public bus transport has a huge number of 112 thousand buses with the annual growth of 5percent. To make a tracking and monitoring system for this amount of buses is completely a burden for the budget makers. The present-day GPS tracking systems need at least a twenty-five thousand rupees system per bus. This is not going to possible for present-day Indian scenario. So, we came up with a software-based vehicle tracking in pre-defined routes. This is done using various kinds of collectors with mobile applications and sensors. The role of kinematics is kept higher here than the GPS sensor data. Open-source mapping API is used to give the end-users a visualized outlook. This kind of software system reduces the economic burden for the monitoring and estimation process with 90 percent accuracy in the simulation stages.

**Keywords:**

Open Layer JS, Vehicle Tracking, Traffic Estimation, GPS, Public Transport

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