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# ABSTRACT

**Real time truck tracking system** is a **vehicle tracking** system using a global positioning system (GPS) technology module to receive the location of the vehicle, a real time on the website map developed by Google Map which allows inspection of vehicles at all times. Employing Google Map API to help a map construction on the website. With the Google Map on a real-time website, vehicles can be monitored and located very effectively. This includes paths and/or vehicles directions. By making use of Google Map API we can find the “Efficient path” for transportation of our vehicle which leads to save more money and time.

**INTRODUCTION**

Real Time Truck Tracking is a web application for vehicle tracking that uses global positioning system (GPS) technology module to receive the location of the vehicle, a real time on the website map developed by Google Map which allows inspection of vehicles at all times. Employing Google Map API to help a map construction on the website. With the Google Map on a real-time website, vehicles can be monitored and located very effectively. This includes paths and/or vehicles directions. By making use of Google Map API we can find the “Efficient path” for transportation of our vehicle which leads to save more money and time.

A GPS based tracking system gives all the specifications about the location of a vehicle. The system utilizes geographic position and time information from the Global Positioning Satellites. In order to track the movement of the vehicle Google Maps used for mapping the location.

**RELATED WORK**

**Global Positioning System**

The GPS is a space-based satellite navigation system that provides location and time information in all weather conditions, anywhere on or near the Earth where there is an unobstructed line of sight to three or more GPS satellites. GPS technology can be described in terms of three segments:

1. Space Segment: Consists of twenty-four satellites orbiting 11,000 nautical miles above the earth.
2. Control Segment: Consists of 5 ground stations around the globe that manage the operational health of the satellites by transmitting orbital corrections and clock updates.
3. User Segment: Consists of various types of GPS receivers that can vary in complexity and sophistication.

GPS receivers are able to identify their location when three GPS satellites triangulate and measure the distance to the receiver and compare the measurements. A fourth satellite measures the time to the receiver. The information from all four satellites is compiled to determine the location. The sophistication of a GPS receiver impacts the reliability and accuracy of the GPS data received.

**Google maps API**

**Google APIs** is a set of application programming interfaces ([**APIs**](https://en.wikipedia.org/wiki/API)) developed by [Google](https://en.wikipedia.org/wiki/Google) which allow communication with [Google Services](https://en.wikipedia.org/wiki/Google_Services) and their integration to other services. Examples of these include Search, Gmail, Translate or Google Maps. Third-party apps can use these APIs to take advantage of or extend the functionality of the existing services.

The APIs provide functionality like analytics, [machine learning](https://en.wikipedia.org/wiki/Machine_learning) as a service (the Prediction API) or access to user data (when permission to read the data is given). Another important example is an embedded Google map on a website, which can be achieved using the Static maps API, Places API or Google Earth API.