# 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.

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**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.

**Problem Domain**

**Retail trade**

Retail trade is widely known as a very competitive area of commercial endeavor, and for entrepreneurs who launch a retail store on an adequate foundation of capital, business acumen, and attractive merchandise, involvement in the trade can be rewarding on both financial and personal fulfillment levels. Like all industries, the retail industry is subject to various business drivers that influence the direction of this industry.

This project is concentrating on How the good for retail units from wherehouse to various retail units. And provide the effective path for connecting the required retail units for effective transmission of goods from wherehouse to individual retail units.

**Major Objective and Scope of Project**

**OBJECTIVE**

* Providing the interface for the Organization for tacking the vehicle and to monitor vehicle on regular basis.
* Increasing the efficiency of Tracking record management
* Easy to handle and feasible
* Cost Reduction
* Fast and Convenient

**SCOPE**

Registration: Registration is part for the drivers and trucks can be done and there is a separate module is to check the driver and the truck availability. This part is used to add Drivers, Trucks and the routes for truck.

**Software Platform**

**RESULTS AND DISCUSSION**

The main objective of the project was to develop a GPS tracking system that uploads a set of given parameters to a database server through a GGSN network to a website where it can be viewed remotely. The expected results were obtained as it can be evident as analyzed as in previous chapters.

In this paper we have proposed an antitheft system which can be used to track a vehicle fitted with the proposed device in it. It can also be used in wildlife tracking, asset tracking and in stolen vehicle recovery. In the future we may integrate other related devices in a vehicle such as sensors. We can create a server to see the vehicle route and other information on our computer and we can save the trajectory of it. The sensors installed in our vehicle can report the vehicle information to our server and it can form an intelligent tracking system. There are various reasons why car owners and public vehicle operators prefer to have a GPS. You can determine your location, whether you are travelling locally or in a foreign land, having a GPS is truly an advantage. If you think you are lost, you can use your GPS receiver to know your exact location. Vehicle tracking systems are commonly used by fleet operators for fleet management functions such as routing, dispatch, on-board information and security. Other applications include monitoring driving behavior, such as an employer of an employee, or a parent with a teen driver.

**Recommendation for future work**

The recommendations for future work are as follows: i. Investigate how to protect the data collected on the website by making sure users only get to access only those devices that they are authorized to. Generally increased security to protect Vehicle tracker identity. ii. To develop a mobile application for the different types of mobile Operating Systems rather than just using a desktop application. iii. Developing a means to show track record of where the vehicle has been rather than just the position it is located.