

Web Application On Transport Telematics And Fleet Management



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ABSTRACT

Travel telematics and fleet management is very big issue. To manage the travel telematics and fleet management we need proper management The overall goal of project is to use of GPS system in vehicle. This system can have more advantages to used such as off-line vehicle tracking, scheduling, remotely vehicle diagnosing problem, and driver or vehicle status reporting. This system is developed to used for automate fleet management and decision making. The web based fleet management application is able to check the difference between the trip track that is done by operator and the actual track that is recorded by the system to monitor the driver performance. This requires the operator to determine the source and destination of the trip. It also reports the mileage, fuel consumption, degree of mismatch, driver assignment, vehicles maintenance problem, and driver status. This application is developed to be cheap to be used by organizations that have big fleet. We have developed very simple application to operate any user.

Keywords: GPS, SMS, Shortest Path, Fleet Management.

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I. INTRODUCTION

Vehicle tracking systems were first implemented for the shipping industry because people wanted to know where each vehicle was at any given time. These days, however, with technology growing at a fast pace, automated vehicle tracking system is being used in a variety of ways to track and display vehicle locations in real-time. This paper proposes a vehicle tracking system using GPS/GSM/GPRS technology and a Smartphone application to provide better service and cost-effective solution for users. one can observe that the world is experiencing accelerated growth in Smartphone ownership. As a result, Smartphone users are now more prevalent within the overall population than owners of basic mobile phones. As Smartphones become more familiar to people and finding use in the day to day lives, their influence on society continues to grow. The main driving force for this accelerated growth in Smartphone usage is the availability of a large variety of applications to meet the needs of a wide range of users. In our project we developed a Smartphone application along with the in-vehicle tracking device. The two parts work together to offer the most convenience to the users as they become handy to track vehicle locations in real-time.

II. LITERATURE SURVEY

Design and Development of GSM-GPS based tracking system with Google Map based monitoring.

Pankaj Verma, J.S Bhatia ,2013

In this paper authors can proposed, today huge number of application uses the GPS technology. For regular monitoring and tracking vehicle GPS is used. It can inform the remote location and route travelled by vehicle which can be observed from any other remote location. Web application provides the exact location of target. This system enables tracking of target in any weather condition. GPS and GSM technologies are used by the system. Comprises of GPS, GSM, Atmega microcontroller MAX 232, 16x2 LCD this hardware parts are used by the system. For interfacing all the required modules and a web application is also developed at the client side software part is used. Main objective is to a system that can be easily installed and to provide platform for further enhancement.

Remote Vehicle Tracking & Driver Health Monitoring System Using GSM Modem & Google Maps.

Madhuri Unde ,Bharat Borkar ,2014.

In this project explain, the number of vehicle theft cases has been increasing at an rapid rate whereas the rate of recovery of the stolen vehicles is still minimal around the world. low efficiency of services and reduced profit as the company could not monitor transportation operations causes due to lack proper fleet management system. to overcome these issues a real-time remote vehicle tracking system is one of the best solutions. The development of the remote vehicle tracking system which integrates the Global System for Mobile Communications (GSM) Modem and Google Map. The GSM modem at the control centre will receive the coordinates through Short Message Service (SMS) and updates the main database. The information then will be accessed by the website and the position of the vehicle will be displayed through the Google Maps application. A website has been developed to aid the user to track and view the vehicles' location and can be access anytime and anywhere as long as Internet connection is available. The three working functions are the latest tracked vehicle location, route history and route planner. The developed remote vehicle tracking system demonstrates the feasibility of real-time tracking of vehicles, which can be used for many applications including vehicle security and fleet management.

SMS-Based Tracking, Navigation and Broadcasting System

G Vijaylakshmi.2014

Cheapest and best ways for sending and getting precise information with a limitation in size is Short Message Service (SMS).Standalone programs are developed for both server side and client side to communicate via SMS service provided by GSM service providers in the locality. The usage of SMS in GSM based mobile communications is successfully tested for getting GPS co-ordinates of the client location using a Android based Smartphone and dynamically plotting the co-ordinates, path etc. using Google Maps API in the server. Based on this study, importance of SMS based applications in various domains are discussed in the present paper.

GPS and GSM based Passenger Tracking System

Vijay Kumar , Dalip ,2014.

Necessity for increasing passenger safety is due to evolution in transportation technology. Today women safety is more important when they are travelling in public transport. So we want a tracking system for passengers so that we can monitor at anytime from anywhere. Mostly passenger tracking systems are Radio Frequency Identification (RFID) based but they are not cost effective. In this paper a cost effective Global Positioning System (GPS) and Global System for Mobile communication (GSM) based passengers tracking system inside buses is introduced here. It tracks the

passengers by using ticket number and displays location on Google map.

Position Detection and Tracking System.

Mahesh Kadibagil , Dr. H S Guruprasad ,2014

The Accuracy of locating friends and family members positions by using GPS and standard web technology enhanced by the Autonomous position detection and tracking system. This system includes a mobile client, a repository, a web client and a map service. The mobile client is used to find location and send a Popup SMS to user when his/her friends or family members come around the user's area of direction. This location information can be sent to the server and the same information can be managed and viewed using the web client by other users.

III. PROPOSED SYSTEM

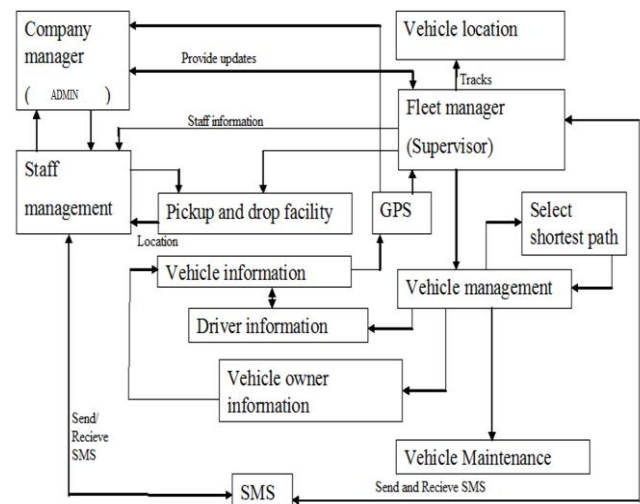


Fig 1. System Architecture

The major components of the system will comprise the following:

Company Admin

The term supervisor is generally used to refer to the managers at the lowest level in the organization, who directly supervise non managerial employees of the company. As managers, the supervisors perform the same type of work as any other manager in the company. This includes the four basic functions of planning, organizing, leading and control. However their work requires less of planning and organizing responsibilities as compared to leading and control activities. Physically supervise the operational work carried out by employees reporting to them. Directly instruct employees under them on work to be carried out by them and the methods to be adopted.

Fleet supervisor

Fleet Manager is responsible for selecting the right vehicles and maintaining them in good operating condition so that the company can meet its distribution objectives efficiently and cost-effectively.

They have considerable operational experience in logistics vehicle maintenance, and use fleet management software to track and monitor the various aspects of fleet and drive operations.

Vehicle driver

Drivers are responsible for inspecting a rented vehicle prior to leaving the place where the vehicle is rented. Once the driver leaves the rental facility with the vehicle, any damages found are the responsibility of the renting party. The driver will park the vehicle and make appropriate arrangements so that the vehicle can be serviced, otherwise operated safely, or towed. Drivers must only transport the number of persons for which there are seatbelts in the vehicle. The driver must make certain that all persons in the vehicle wear their seatbelts. Drivers must observe all traffic regulations. Drivers must take appropriate precautions when driving conditions are hazardous. (This includes but is not limited to dust storms, fog, heavy rain, snow, or ice conditions). This includes allowing enough time for travel. Drivers are responsible for taking appropriate measures to secure and safeguard the vehicle until it is returned to the designated location at the University or the rental company. In cases where a private rental vehicle is used (see below), the driver is responsible for complying with all rule and regulations associated with the private rental contract.

Company employee

Many progressive companies in India offer a benefit to their employees in terms of a pick-up and drop facility, (from residence to work and back) thus providing a hassle free commuting experience to their employees. Primarily, this benefit is offered by companies in the BPO, IT and Hospitality sector. These sectors function 24*7 on account of their services and Client requirements. However, there are many other organizations beyond this sector which extend the aforesaid benefit to their employees. This has seen as an increasing practice across metro cities in India.

Reasons and Benefits:

- Nature of shift and odd working hours this limits the employees to use public transport and therefore the company has to make necessary arrangements
- Standard reporting timings it is a healthy practice in companies where employees are punctual and report at the same time. To facilitate this, employers many times provide company transport wherein employees residing a particular area travel to work by company provided vehicle which ensures they all reach on time and together
- Safety-Company-facilitated transport vehicles are well maintained. The chauffeurs are trained on prevailing traffic rules and safety guidelines and therefore the risk factor during travel is mitigated. An employee can come and go back home in a relaxed state of mind

Maintain vehicle rent detail

The vehicle rent is managed between the vehicle owner and the fleet manager before renting the vehicle .Fleet supervisor give updates about the rent of vehicle to the company manager There exist agreement for renting the

vehicle between fleet manager and vehicle owner. Finalizing of rent decided by using the current reading of vehicle.

Assign driver to vehicle

Vehicle driver is assigned by the fleet manger to a vehicle. The manger tells the information about the no of employees .After assigning the driver, the fleet manager assign driver id to every individual driver and maintain the record about driver. Driver personal information is available at the fleet manager .The employee should take the details about the driver from fleet manger or from the web portal

Check vehicle diesel /petrol consumption

After assigning the driver, driver check the condition of vehicle and report to the fleet management. Driver check the initial fuel of vehicle and maintain its chart. This charted information should be provided to the fleet manager after the driver shift. Driver manages the total travelled distance and petrol consumption of vehicle.

Maintain vehicle information

Fleet supervisor and vehicle owner maintain vehicle information. Fleet supervisor and company supervisor maintain the vehicle rent.

Book vehicle route

The employee book the vehicle route and gives this information to company supervisor. The company supervisor tells about the employee route to the fleet manger and fleet manager tells this information to driver.

Web information and SMS notification

The employee have the login id. The employee login on the web application and check the information about the vehicle .The fleet manger check the location of vehicle and update the information to web application and send the SMS to the employees about the location of vehicle.

Employee arrival and departure

The fleet manger maintains information about the employee's arrival and departure. It is employees have responsibility to inform the arrival and departure to the fleet manager.

IV. CONCLUSION

We have conclude that the Product can be used to fetch information which is stored in digital format and searching the nearest path for the shortest path which is much faster and provide accurate results. IT will provide the company vehicle location and update it on the web information. Our project will definitely minimize the use of extra work, increase the transparency and provide better health service to all the users.

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