

INTELLIGENT TRANSPORTATION SYSTEM (APPS): GPS BASED TRACKING

Rituja Shinde¹, Mitali Mulinti², Pranoti Shinde³, Shital Kadam⁴

Abstract: A vehicle tracking system (VTS) can determine the location of a Vehicle using smartphone and displays the point on a map. In recent times, technologies like tracking vehicles have introduced some advanced features in many areas. A GPS based vehicle tracking system merges the installation of a device in a vehicle, or a group of vehicles to enable the owner or collect data in the process from the field and also deliver it to the base of the operation. Such tracking systems can notify you the location and route travelled by a particular vehicle, and that information can be observed from any Smart phone. The system enables us to track target in any weather conditions. Technologies like GPS and GSM are used. It includes the hardware part which comprises of GPS, GSM and software part is used for interfacing all the required modules. Main objective is to design a system that can be easily installed and also provide a platform for further enhancement. It is incredible to know how straight forward ideas can give a entire new facet to the tracking and navigation engineering and vehicle tracking system is used for tracking the vehicles. We can get optimize driver routes. At times it is not required to track your vehicle or target globally but in majority of cases, tracking is more restricted to local purposes only for tracking movement of vehicle within city, tracking the raw materials within industrialized domain or to know the present position of your daughter or son within city. But unfortunately in the chase of making things difficult this simple idea is forgotten. Therefore a simple yet powerful idea forms the basis of this revolutionary project. All this together with a very low cost, a strong design and significant market prospective makes the model even more attractive.

Index Terms: Vehicle tracking, Google Maps API, Smartphone application, GPS/GSM Technology etc

I. INTRODUCTION

Vehicle tracking systems were prior implemented for the shipping industry due to the reason that people asked for where each vehicle was at any given time. Nowadays, however, with technology growing rapidly, smart vehicle tracking system is being used in a variance to track and present location of vehicles in real-time. Our system proposes a vehicle tracking system using GPS technology accessible in a Smartphone application to provide better service and cost effective result for users. On the foundation of statistical data, one can observe that the world is experiencing accelerated growth in Smartphone possession. As a result, Smartphone customer are now more widespread within the overall population than owners of basic mobile phones. As Smart phones incline more well-known to people and being used in the day to day lives, their control on community continues to

grow. The main percept for this accelerated growth in Smartphone usage is the availability of a large variety of applications that meet the demands of users. In our project we will be developing a Smartphone application which can trace the region of the vehicle by using the GPS technique available in smart phones. This offers convenience to the users as they become supportive to track vehicle locations in actual-time. A vehicle tracking is a must for the most basic function in all fleet management systems. The management system aims at elaborating the aspect and efficiency of the industry by analyse major obstacles on the road and tracking real-time locations of their speedy on a map. Many of the vehicle tracking system are constructed by using GPS/GSM technology, but we make use of this technique which is easily available in smart phones, thereby compressing the cost. In vehicle tracking systems, a vehicle location is one of the most important factors. The location and time information anywhere on earth is provided by using GPS technology. Instead of using SMS, the proposed vehicle tracking system makes use of the Smartphone application to track and control a vehicle location which will be obtained from the in-vehicle tracking device controlled by a microcontroller. The vehicle location is radically implanted on Google maps, which make it easier for tracking a vehicle and provides users with more discriminative vehicle location information.

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Rituja Shinde, Computer Science, SPPU/ Indira of College of Engineering and Management, Pune, India, 8421373086, (e-mail: ritz1024@gamil.com).

Mitali Mulinti, Computer Science, SPPU/ Indira College of Engineering and management, Pune, India, 8446967582, (e-mail: mulintimitali@gamil.com).

Pranoti Shinde, Computer Science, SPPU/ Indira College of Engineering and management, Pune, India, 8390003818, (e-mail: pranotishinde111@gamil.com).

Shital Kadam, Computer Science, SPPU/ Indira College of Engineering and Management, Pune, India, 9145282165, (e-mail: shitalrkadam.18@gamil.com).

II. LITERATURE REVIEW

“Smart Onboard Public Information System using GPS GSM Integration for Public Transport,By Mr. Prafull D. Patinge1, Ms. N. R. Kolhare .Claims of urban shipping and one of the cost efficient approach to intelligently manage the public transpiration in the city has been depicted in the article. The GPS based urban transportation management system desired the fleet tracking using GPS GSM/GPRS technology and public information system unit mounted at bus. The real-time co-ordinates will used for design the onboard commuter to

destination. The unit mounted on bus sends the data using GSM/GPRS module to central monitoring system displays it on City Map. This application is easy to deploy however provide effective management tool to urban transportation authorities for optimal utilization of present resources for improvements in term of load management, optima route designing real-time monitoring and manage the fleet. "Design of GPS and GSM Based Vehicle Location and Tracking System", By Patel Krishna Harshadbhai A vehicle tracking system integrates the installation of an electronic device in a vehicle, or fleet of vehicles, with purpose designed computer software to facilitate the owner or a third party to track the vehicles location, gathered data in the process. Modern vehicle tracking systems generally use Global Positioning System (GPS) technology for locating the Vehicle. To achieve automatic Vehicle Location system that can transmit the location information in real time. The information is transformed to Tracking server using GSM/GPRS modem on GSM network by using SMS or using direct TCP/IP connection with Tracking server through GPRS. Tracking server also has GSM/GPRS modem that receives vehicle location information via GSM network and stores this information in database. This information is available to authorized users of the system via website over the internet. "Public Transportation Management System based on GPS /WiFi and Open Street Maps", By Saed Tarapiah, Shadi Atalla Information technology (IT) has distorted many industries, from education to health care to government, and is now in the in the early hours of transforming transport systems. It faces a lot of issues like high accidents rate in general, and much more rate in developing countries due to the lack of proper infrastructure for roads, is one of the reasons for crashes. The main focus is on public transportation vehicles - such as buses, and mini-buses. The goal of the project is to design and deploy a smart/intelligent unit attached to public vehicles by using embedded microcontroller and sensors and empowering them to communicate with each other through wireless technologies. The proposed Offline Intelligent Public Transportation Management System will play a major role in reducing risks and high accidents rate, whereas it can increase the traveler satisfactions and convenience. A method, software as well as a framework is developed so as to enable technologies for evaluation, planning and future improvement the public transportation system. The system even though can be as whole or parts can be applied all over the world we mostly target developing countries.

III. CONCLUSION

VTS system has the real-time capability, that emerges in order to strengthen the relation between the peoples and vehicle by putting modern information technologies together and able to forms a realtime accurate, effective transportation system. This system propose a new vehicle tracking and security system, that will make use of the social network as a value added service for traditional vehicle tracking systems. For vehicle tracking in real time, vehicle-unit and a tracking server is used. Now a day vehicle tracking technologies or

vehicle tracking system have brought some breakthrough in different areas such as commercial vehicle operations, fleet management system, hazard material monitoring, and security so there is a need to have a GPS based system which will get the current vehicle location and path of the. The information is transferred to Tracking server using GSM module on GSM network by direct TCP/IP connection with Vehicle Tracking server through the GPS. Vehicle and Driver information will recorded in tracking server database. This information like vehicle location is available to only authorized users of the Vehicle tracking system via web interface over the internet.

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