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Truck Tracking App

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***Abstract*: Truck Tracking System is an application is used to track the truck which is to transport the goods and service with the GPS location which is able to connect with any devices. They can quote the number of loads which is delivery form one place to another place, then customer can assign the load to a driver to pick the goods and services. This system has full pledged with customer application and driver application to plan freight/routes and to get quotes/bids from drivers then the freight will allocate to less quoted driver. It is also to truck the truck with a geo location. This system has effective way to carry the goods safely and it is user-friendly to use this application. Currently almost of the truck and the goods are stealing by thefts and sometimes driving insecurity places. This application will continuously monitor a Vehicle and report the status of the Vehicle on demand.**

***Keywords*: Bids, Enormous, Freight, Mishaps.**

1. Introduction

The truck tracking system is mainly used for track the trucks which is with the freights and to migrate the freights safely. It is the technology used to determine the location of a truck using GPS. Truck tracking systems were first implemented for the shipping industry because management of the truck wanted to know where the vehicle was at any given time. To resolve such problems, a system is developed using GPS technologies and an application is introduced to provide security to trucks. The truck tracking device is classified as active and passive where passive devices store GPS data and later this device is removed and downloaded to a computer for evaluation whereas, active devices collect the data and transmit it in real time over server. Generally, this transport is arranged through the local transport vendors on a yearly contract basis, recently happen mishaps such as robbery, rape cases etc. This truck tracking system found in client's vehicles as a theft prevention and rescue device. Vehicle owner or Police follow the signal emitted by the tracking system to locate a robbed vehicle in parallel the stolen vehicle engine speed going to decreased and pushed to off. After switch of the engine, motor cannot restart without permission of password. This system installed for the four wheelers, truck tracking usually used in navy operators for navy management functions, routing, send off, on board information and security.

India has progressed on enormous rate that many companies have establish themselves here. These companies have a huge work force. Arranging the transportation to such huge force is difficult task. This transportation is arranged through local transport vehicles on yearly basis. But this has caused many mishaps like rape, burglary etc. Therefore, the proposed tracking system will help users in finding the location of vehicle through satellite communication. GPS and GSM based vehicle location and tracking system will provide effective, real time vehicle location, mapping and reporting this information back to monitoring device and improving the level of service provided.

2. Design of Tracking System

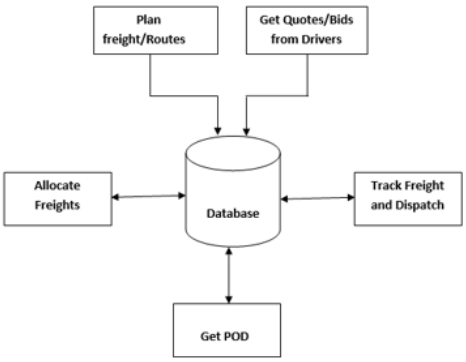

Fig. 1. Design of tracking system

In this paper it is proposed to design a wireless system which is used for tracking and positioning of any vehicle by using Global position system GPS and global system for mobile communication GSM. In this device ATmega32 microcontroller is used for interfacing to hardware peripherals. The current design is an application of wireless network which will continuously monitor a moving vehicle and report the status of the vehicle on demand for that ATmega32 microcontroller is interfaced serially to a GSM modem and GPS. The GSM modem is used to send the position of (latitude and longitude) of the vehicle. The GPS modem will give the data of demanded (through SMS) i.e., the latitude and longitude indicating the position of vehicle. Then the above locations which are received through SMS is copied in the Google maps to check if the location given is perfect or not. The microcontroller used is a ATmega32. The code is written in the internal memory of the microcontroller with the help of a microcontroller instruction set it proceeds the instruction on demand and it acts as interface between GSM and GPS with the help of serial communication of AT mega 32. The AT

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commands are used in GSM and GPS. The GPS modem always transmits the data and GSM always receive the data, GPS transmitter pin is connected to a microcontroller and the GSM transmitter and receiver pin is connected microcontroller port D. Microcontroller takes data from GPS receiver and then sends the information to the user through SMS with help of GSM modem [6].

3. Results and Discussions

GPS based vehicle tracking system uses the GPS technology, GSM service and Android mobile. As per shown in Fig. 1 this system has five main modules plan freights, get quotes/bids, allocate freights, Tracking and get POD. Tracking truck and delivery performs tracking functionality. It tracks the vehicle through GPS and transmits its current location to the server. The main function of monitoring side is to provide login interface to user and to show the Google map with vehicle locations. Server woks as a central connector for transmitting unit and monitoring unit. As both transmitting side and monitoring side communicate with each other through Server only. As per Fig.1 the application communicates with server and access the remote database. Where at transmitting side Tracker application obtained its current location through GPS technology and updates it to server.

In the proposed system we can add features like truck locking, thief photo capturing. This will help the user to have an anti-thief feature. Upgrading this system is very easy which make it open to future requirement without the need of rebuilding everything.

4. Conclusion

This proposed system allows organizations to track their truck and to get exact location of vehicle. The system allows those companies to monitor the travelled routes through a web client that uses the Google Maps API and shows colours on the map to indicate if the devices on route. The general evaluation result is that the system proved to be reliable as to view the positioning of the devices**.** The benefits of creating a lecturer location tracking system for higher institutions are numerous, and this can lead to a new era in the Nigerian Education Sector. The system reduces the cost of locating a lecturer and increases effectiveness due to flexibility and the elimination of the randomly searching offices for lecturers. It also utilizes an SMS gateway to pass important information across to the lecturers registered on the system.

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