

Vehicle Tracking System Based on GPS and GSM Using Arduino

Sonika Sharma^{1*}, Pushpa Ramudamu², Padam Maya Tamang³, Kiran Pradhan⁴, Arun Pradhan⁵

^{1,2,3,4}Student, Department of Electronics and Communication Engineering, Centre for Computer and Communication Technology, Namchi, India

⁵Senior Lecturer, Department of Electronics and Communication Engineering, Centre for Computer and Communication Technology, Namchi, India

Abstract: The project involves the use of GPS and GSM technology wherein with the help of these modern concept and technology we aim to construct “modern vehicle tracking device”. This service enables the owner or the controllers of the service to locate the vehicle and also gather various information about the vehicle. The system includes the GPS module installed in the car to track and receive various information and pass it to owner with the help of GSM module.

Keywords: GPS, GSM, module, controller, device, track

1. Introduction

Modern vehicle Tracking System that we are making using the GSM and GPS technology is one of the finest example of modern and effective technology used in the “New generation automobile” which now-a-days comes with the in build in AI technology. With telecommunication technology at its peak in this era with the combination of GPS technology the owner of the automobile can now easily locate and track with the help of this system installed in the vehicle.

1) GSM

GSM stands for Global system for mobile communication and it has been highly responsible for the success of telecommunication in the period of two decade. It was developed in Finland by Europe. Telecommunication standards institute. The GSM technology provides the customers a standard number expanding in almost all the countries therefore allowing the seamless roaming capability.

2) GPS

GPS stands for Global positioning system which enables to track and locate devices with GPS receiver with the help of satellite signals. The GPS technology was first started by United States Department of Defense in the year 1973. GPS technology has a wide range of military and civilian application. It was developed specifically for the military in navigation, tracking, mapping, and providing location of deep inside enemy lines. However after civilian use was allowed from 1980s this technology is now used in almost all aspects including Automated vehicle, emergency services, mobile

phones, study of atmosphere timing etc.

2. Guideline

- With the GPS module installed in a vehicle we have to send the location of the car to the control unit.
- Satellite sends a signals consisting of latitude and longitude to the GPS receiver in the module.
- This information is than given to GSM module which reads the message in the display provided by the GPS module to the control unit.
- This way the owner car track and located the vehicle.

3. Figures

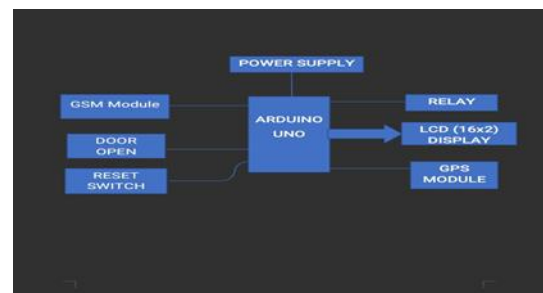


Fig. 1. Block diagram of vehicle tracking system based on GPS-GSM using Arduino

4. Future scope

This system is also one of the example of civilian use of GPS technology enable with the revolutionary technology in telecommunication i.e. GSM. In this era of technology with concept of self driving cars and vehicles on its peak, “Modern vehicle tracking service” has wide range of application and this technology and its use cannot be ignored.

5. Conclusion

This paper presented an overview of Vehicle tracking system based on GPS and GSM using arduino

*Corresponding author: kharkaa9@gmail.com

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