International Journal of Recent Trends in Engineering & Research
ISSN(ONLINE) : 2455-1457
IMPACT FACTOR : 3.344

Smart Vehicle Theft Control

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Abstract: one of the issues faced now-a-days is vehicle theft. As increasing vehicle theft, the ideas for vehicle security is also improving. Using new technology the manufacturers are trying hard for securing vehicles manufactured by them. The proposed system has the advantage of controlling the vehicle even if the vehicle has been theft. Using the smart device the vehicle can be prevented from theft and if theft the intruder can be easily trapped with real time communication of the vehicle with sms alerts, tracking of vehicle on Google maps, fuel cut-off, and engine control. The user can lodge an online complaint with the nearest police station with the range of 5kms radius which can be automatically detected by the system and user will get an acknowledgement on the complaint. Using the alarm system vehicle can be alerted in the crowded area by knowing through gps.
Keywords: vehicle theft, sms alerts, alarm, fuel cut-off, Google maps, communication.

I. INTRODUCTION

Theft is the common criminal behavior. New tactics are used for prevention of automobile theft smart technique can be used for trapping them. The anti-theft system has to be very strong in order to secure the automobiles. Researchers are coming up with an innovative way for theft prevention. The owner can control the vehicle through a smart device.A common network architecture for inter-vehicular communication with Vehicular Ad-hoc Networks (VANET) and GSM (Global System for Mobile Communication) to realize an intelligent transportation system supporting safe driving, dynamic route scheduling, emergency message dissemination, traffic condition monitoring is essential. Hence this project describes inter vehicular communication using GSM technology.

The rest of the paper is organized as follows. Proposed system and block diagram are explained in section II and Concluding remarks are given in section III.

II. PROPOSED SYSTEM

In our project, we propose an anti-theft system to prevent from loss or theft. The project proposed here aims to design a next generation auto theft prevention system by adding significant enhancements and modernizing

It consists of two units namely,

1. Vehicle unit.
2. Smart device unit.

The vehicle unit constantly monitors the vehicle motion after being armed (locked). The integratedmotion sensing subsystem measures the vehicles three dimensional position and detects any unauthorizedmotion if the vehicles is moved or tilted that exceeds a threshold level.

GPS and GSM technologies enable the vehicle owners to track and monitor the vehicle with cell phone atanytime from anywhere and can control the vehicle through a smart device.

2.1 Sms alert:

This feature converts the smart device from silent mode profile to general mode profile and alerts the user that vehicle has been theft.

2.2 Photo capture

This feature captures the intruder picture and attaches the images and send to the user mail ID and also to the nearest police station which automatically detects from the gps device.

2.3 GPS Tracking:

This feature restricts the vehicle movement within a particular area. For example, if the owner wants the car to move only within a particular city, once it moves out of city borders the owner would immediately

Receive an SMS alert as to the current location of the vehicle. The interesting feature here is the fence radius can be programmed by the user in the touch screen display. This flexibility allows the user to set a virtual fence that can be at building level, street level, city level or state level.

2.4 GSM/GPRS module:

A GSM module is a wireless modem that works with a GSM wireless network. Mainly used for the Short Message Service (SMS) in this project. A wireless modem behaves like a dial-up modem. The receiver in the GSM module is mentioned as ignition unit. A GSM modem can be an external device or a PC Card (specially used for laptop systems). Typically, an external GSM modem is connected through a serial cable or a USB cable. Like a GSM mobile phone, a GSM modem requires a SIM card from a wireless carrier in order to operate.

2.5 Fuel cut-off:

This feature is very useful especially in case of auto theft. If the vehicle is somehow hacked into and taken, you can send message that will slowly cut-off the fuel supply, thereby disabling the vehicle. A servo Motor controlled valve is used to cut the fuel supply.

2.5 Buzzer:

This feature includes arming the vehicle in crowded area mapped through GPS.

Block diagram:

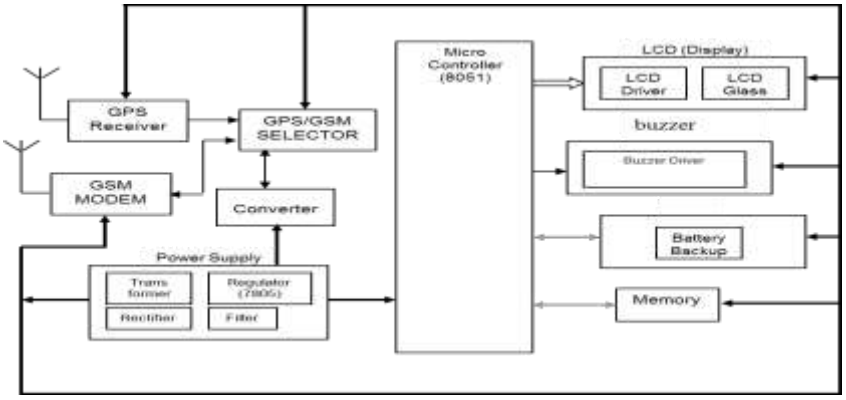

Fig 1: architecture of proposed system.

III.CONCLUSION

This approach described here presents a technique to prevent the vehicle theft by controlling through smart device by embedding a smart vehicle unit which is present in the vehicle and also tracking the vehicle with real time communication.

REFERENCES

1. Kichun Jo, Student Member, IEEE, Keounyup Chu, Student Member,IEEE, and MyounghoSunwoo, Member, IEEE:Interacting Multiple Model Filter-Based Sensor Fusion of GPS With In-Vehicle Sensors for Real-Time Vehicle Positioning IEEE Transactions on intelligent transportation systems, vol.13, NO. 1,March 2012.
2. Chee-Ming Ting, Lih-Heng Chan, and ShHussainSalleh, "Face Biometrics Based On Principal Component Analysis and Linear Discriminant Analysis", Journal of Computer Science, 20 I 0, pp. 693- 699.
3. Guiming, and Zhixiong Liu, "A Vehicle Antitheft and Ala= System Based on Computer Vision", IEEE on Electrical Systems, 2005, pp. 326-330.

