



SURVEY ON ADVANCED ANTI-THEFT PROTECTION OF VEHICLES USING GSM, GPS AND FINGERPRINT

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Abstract: Now a day's car monitoring device is getting tremendous reputation due to the fact of the growing variety of the stolen vehicles. Vehicle theft is happening on parking locations and now and again riding in unsecured places. This paper explores how to keep away from this type of stealing and presents greater protection to the vehicles. The gadget incorporates single board embedded gadget which is geared up with GSM and GPS alongside with microcontroller established in the vehicle. The car starts off evolved solely when enrolled fingerprint fit in any other case it sends messages to the car owners. Using GSM and GPS applied sciences song the vehicle, it gives each latitude and longitude distance of the vehicle. The gadget is very easy with increased protection for automobile anti -theft safety and additionally low fee method in contrast to others.

INTRODUCTION

Vehicle monitoring device is used to monitoring the vicinity of a truck, automobile or any transferring cars the usage of GSM and GPS system. Widely deployed to maintain tune of truck fleets, automobile monitoring ensures that the cars are being used desirable and that they can be recovered in the match they are stolen. To keep away from the automobile theft and stolen in this undertaking imposing the fingerprint scanner in the case of key omit setting and thefts are attempting to stolen vehicle. The fingerprint matched skill auto begin in any other case it sends the message to the proprietor of the car. Using GSM/GPRS applied sciences without difficulty monitoring the automobile that presents each latitude and longitude distance of the car on Google maps. This mission offers correct protection to the car as properly as proprietor of the car in the emergency situations.

The microcontroller positioned at the middle of the block graph varieties the manage unit of the complete project. Embedded inside the microcontroller is a software that helps the microcontroller to take moves primarily based on the inputs supplied with the aid of the output of the sensors. Based on the code embedded within the microcontroller, the D.C motor pace is varied. The D.C motor in the task demo represents a vehicle. Here LCD is used in the demonstration to show the movements taking place.

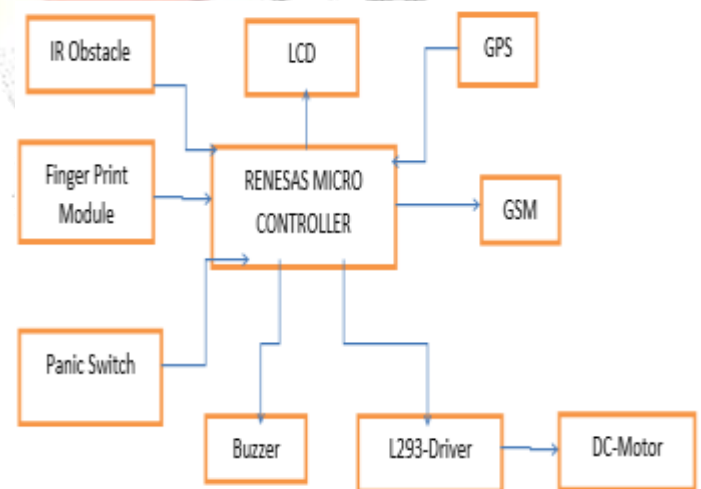


Figure1:Block Diagram

PROPOSED SYSTEM:

The proposed device embedded structures have appreciably specific designs in accordance to their functions and utilities. In this undertaking design, structured modular layout thinking is adopted and the machine is usually composed of microcontroller, GSM, DCM, GPS, Finger Print module, Panic change and buzzer for alert.

During the opening of the demo, it will ask for the consumer to take a look at with the authorization of the person thru the verification of finger with finger print module. If it fits with the predefined storage of the finger impressions, then solely automobile starts. Mean whilst the GPS will ship the place data to the registered contact variety thru the message. In some conditions like automobile theft, this device works best,

by using sending the message to the controller we can capable to song the precise area of the automobiles and give up the vehicles.

conditions to the driver, then the panic change will be pressed to alert the involved person, as properly as ambulance via the equal time the GPS will song the role of the automobile and ship it to the worried authority.

Even from the security factor of view, if there is any emergency **Literature survey:**

S. No	Year of Published	Author Name	Title	Methodology	Results
1	2019 IJTSRD	Ni Ni San Hlaing, Ma Naing, San san Naing	GPS and GSM based vehicle tracking system	GSM module ship SMS, Serial reveal for GSM &GPS module ship & acquire SMS.	Easily monitoring the automobiles the use of GSM & GPS modules.
2	2018 IJSEA	June Myint Mo Khin, Dr.Nyein Nyein Oo	Real-Time tracking system using Arduino, GPS,GSM,& Web based technologies	Tracking unit for actual time automobile monitoring system. Arduino Uno R3, Arduino IDE.	Flexible, customizable & correct the usage of GPS &GPRS of GSM network. Suitable for large vary of applications.
3	2016 IJST	Humaid Alshamsi, Kepuska, Hazza Alshamsi	Real time tracking using Arduino Mega	Architecture of Real time GPS monitoring system. GSM & GPS modules.	Significant utility for car security, Salesman tracking, & non-public drivers. This machine can be used for each non-public & enterprise reason to enhance security & security.
4	2017 IJRCCE	N.Pooja, G.V.S.Jyothirmayee, D.L.Bhargav, N.V.S.Ganesh, J.S.Lakshman Kumar, B. Naga Jyothi	Fingerprint based anti-theft system for vehicle safety	Fingerprint scanner, Alcohol sensors, Microcontroller MSP430.	Security: The fingerprint identification enhances the safety of the car & makes it feasible solely for authenticated user. Focusing on how to overcome from under the influence of alcohol & pressure scenario.
5	2016 IJEDR	K.Sruthi, Mr.S.Ravi, Y.Kiran	Anti-theft tracking system &security system for automobiles using GSM & ARM.	Hex keypad, EEPROM, GSM & GPS modules.	Low diagram cost. Security: motive it has gives the password.
6	2015 IJCA	Abha Damani, Hardik Shah, Krishna Shah.	Global positioning system for object tracking.	Localization improvement Algorithm. Kalman filter Algorithm.	Low accuracy. Delay in time.
7	2018 IJAERD	A.Abinaya Devi, V.V.Dhanalakshmi, S.Ishwarya, M.Sangeetha	Anti-theft protection of vehicle by GSM & GPS with keypad verification & accident detection.	MEMS Sensor, GSM & GPS modules, keypad verification, accident detection.	Provides more suitable security.

8	2019 IJARCCCE	Dr.Pramod Sharma, Akash Shrivastav, Viveka Parashar, Okesh Kumar, RamNaresh	Smart security system for vehicles.	OTP, Microcontroller, GSM & GPS Modules.	Provides High protection to vehicles.
9	2016 IJSTE	Steffie Tom, Aparna Redkar, Keval Velip, Rohit alekar.	Smart car high tech features.	Accident, Accelerometer sensor, Alcohol sensor, Arduino Uno, Fuel theft, GSM & GPS modules.	Low cost, Portability, handy expansibility.
10	2018 GJESR	Kasireddy Koteswari, Mr.S.Sarth Chandra	Anti-theft protection of vehicle by GPS, GSM & GPRS with fingerprint verification	Microcontroller unit (MCU), Attention (AT) command, GSM & GPS, Finger print module.	Provides Protection for car from theft. Low cost.
11	2017 JETIR	M.UdayKumar Naidu, Dr. K. Prahlada	Theft detection and controlling system of a vehicle using GSM.	GSM modem, GPS system, microcontroller, buzzer and solenoid valve.	It sends alert message to the proprietor of the automobile when car is stolen.
12	2016 IJRCCE	Champa Bhagavathi.R, Gowri.B.R, Kasturi.R Pooja .C	Vehicle theft detection and prevention using GSM and GPS.	GSM,GPS, Password verification, Ignition-off, buzzer.	Vehicle theft detection with excessive degree authentication.

Table 1: Summary of important investigations

CONCLUSION

The mission is designed the usage of structured modeling and is in a position to grant the favored results. It can be efficiently carried out as a Real Time gadget with sure modifications.

Science is discovering or growing predominant leap forward in quite a number fields, and as a result technological know-how maintains altering from time to time. Going further, most of the gadgets can be fabricated on a single alongside with microcontroller accordingly making the gadget compact there by making the current gadget greater effective. To make the device relevant for actual time functions factors with increased vary desires to be implemented.

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