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Vehicle Theft Notification and Remote Engine Locking System

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Abstract: Today in present universe of advanced innovation each an individual is associated with one another in number of ways confronting the challenges. The productive car security system is actualized for a robbery of the vehicle utilizing an implanted framework comprising of a Global Positioning System (GPS) and a Global system for Mobile communication (GSM). Now multi day's vehicle burglary has been the most issue looking by the general population. This innovation help us to follow the vehicle by finding their area and by methods SMS causes us to stop the motor. There is an association between the vehicle and SMS we are providing for it. The term IOT (Internet of Things) is actualized here. As the SMS been sent to the proprietor that vehicle has been burglary with the goal that the proprietor answers back to the system for example to stop the motor. The motivation behind GSM is to send the messages to the proprietor of the vehicle. The proprietor has the decision to stop the motor like that in past technique we have the decision of slicing the supply of fuel to the motor.

Keywords: GSM technology, GPS, alert message, location, internet of things, vehicle tracking

I. INTRODUCTION

Internet of Things is the system containing numerous physical gadgets. The term IOT was first instituted by Kevin Ashton in the year 1999. IOT partner to be detected and interface remotely to screen the officially existing system and its framework. Vehicle following frameworks have brought this innovation to the day-day life of the typical individual. Today's GPS utilized in autos, ambulances and police vehicles .As the existing innovation bolster following the vehicle area and status .But the IOT based framework is a standout amongst the most vital framework in today's technology. IOT is an innovation that enables the items to be detected or controlled .This venture completely manages the idea of vehicle has been robbery by some other individual it will showed by the message to the proprietor with the goal that the proprietor will be caution and he stops the motor by answering to that message. Vehicle following is finished utilizing GPS and GSM to follow the present position of the vehicle what's more, the through message we can stop the development of the vehicle. It is the easy method for finding the vehicle where we are at now, with no hazard we can stop right now by sending back a solitary SMS to the vehicle.

II. EXISTING METHOD

The most part utilized frameworks are beepers, alerts, and biometrics. Be that as it may, all these industrially accessible items are extravagant. By utilizing the vehicle bell it's anything but difficult to shield your vehicle from robbery. Yet at the point when your vehicle is far from you the bell or alert identification probably won't be that advantageous. Vehicle caution strategies are utilized to keep the vehicle burglary with the assistance of various sort of sensors like weight, tilt and stun and entry way sensors these frameworks be that as it may bear a few constraints, for example, mind-boggling expense, high false alarm rate and simple to be deliberated. So as to tackle these issue ongoing headways in PC equipment and programming have empowered vehicle industry to create reasonable robotized biometrics based distinguishing proof and confirmation frameworks.

Numerous biometrics, including face recognition, facial highlights, hand geometry, penmanship and voice have been utilized for the ID card and confirmation of people. Be that as it may, biometric has its very own inconveniences, for example ,the frameworks are not 100% exact, they require reconciliation and additionally extra equipment and can't be reset once bargained, you can generally change your secret key on the chance that someone learns it, there is no alter your iris, retina or unique mark. When someone has duplicate of these, there's very little you can do remain sheltered, other than changing to password.

III. PROPOSED METHOD

This paper shows an IOT based vehicle burglary location framework. As there are numerous frameworks utilized till date to identify the burglarized vehicle, proposed framework conquers the majority of the restrictions of the existing frameworks what's more techniques. In this system when the dc engine begins i.e. vehicle robbery happens, microcontroller actuates GPS, GSM and sends an alarm message to the proprietor and the longitude and scope readings of vehicle are posted utilizing web of things with the assistance of Wi-Fi module. The whole system can be worked with a switch for client comfort. Proposed system block diagram can be show below in Fig1

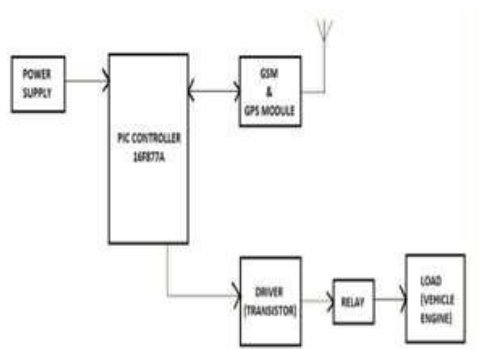


Fig 1.Proposed system block diagram

A. PIC Microcontroller

PIC microcontroller is a microcontroller board dependent on the PIC16F877A. It has 40 pins. It has 5 ports altogether (PortA, PortB, PortC, PortD and PortE). It supports Serial Communication for which it has 2 pins TX and RX. You can get information from RX and can transmit information from TX. It additionally bolsters SPI convention. We need to put a precious stone oscillator going from 4MHz to 40 MHz. We need to structure its essential circuit first so as to utilize it. In addition, we will likewise require some software engineer to transfer hex file.

B. DC Motor

A DC motor is any of a class of turning electrical machines that changes over direct flow stream from electrical vitality into mechanical vitality .DC motor usually has just two drives, one positive and one negative. If you interface these two leads clearly to a battery, the motor will turn. In case you switch the leads, the motor will rotate the other way.

C. GSM

GSM is a particular sort of modem which recognizes a SIM card, and works essentially like a wireless. Here we are using SIM 900A GSM module. SIM900A Modem is worked with Dual band GSM. It wears down frequencies 900/1800 MHz. SIM 900A is a decreased additionally, reliable remote module. Here when the motor presents a caution message having extension and longitude of the vehicle is sent to the owner using GSM module.

D. GPS

GPS is a satellite-based course system. We use NEO-6M GPS module as it is flawless with a combination of GPS recipient. It has an inborn ceramic radio wire. It is a 3V battery. Normally GPS works in any atmosphere conditions at wherever on the planet. A GPS beneficiary bolted on to a flag of somewhere around three satellites to appraise 2D position.

IV.RESULT

The beneath figures demonstrate the circuit (figure 2) and alert message got when the engine begins and area of the vehicle can be sent in message (figure 3)



Fig 2 Circuit diagram for connecting PIC microcontroller and other components

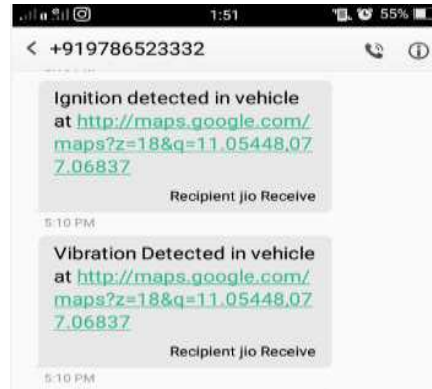


Fig 3(a)

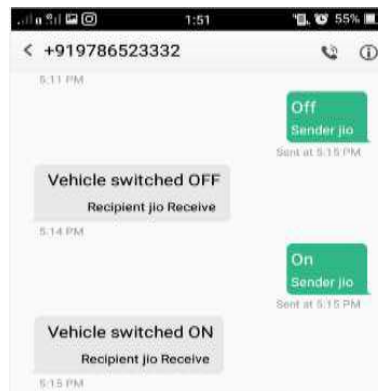


Fig 3(b)



Fig 3(c)

Fig 3(a) (b) (c) Alert message and location sent to vehicle owner

V. CONCLUSIONS

Execution of this framework utilizing IOT which shields the vehicle and it has been adequately utilized for our security of vehicle. This framework for the most part centres on a remote technique which will alarm and conveys through a medium. This framework would be exceptionally delicate and simple to deal with.

VI. ACKNOWLEDGMENT

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