

## **ER-LOCK: NEXT GENERATION AUTO THEFT PREVENTION SYSTEM USING SMART GRAVITATIONAL LOCK VEHICLE TRACKING WITH GPS FENCING AND REMOTE FUEL CUT-OFF**

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**Abstract**— Introduction trendy technology, here we have a tendency to incorporating parts of mechanical, electrical, electronic, code and safety engineering as applied to the look, manufacture and operation of motorcycles, vehicles, buses and trucks. Recently we've got to implement a contemporary technology throughout the vehicles on a daily basis. Among those advanced feature is preventing the vehicle thievery by the unknown person. during this paper we have a tendency to visit a straightforward value effective technique of preventing vehicle thievery victimization GSM and GPS.

**Key words**- GSM (Global System of Mobile),GPS(Global Positioning System)

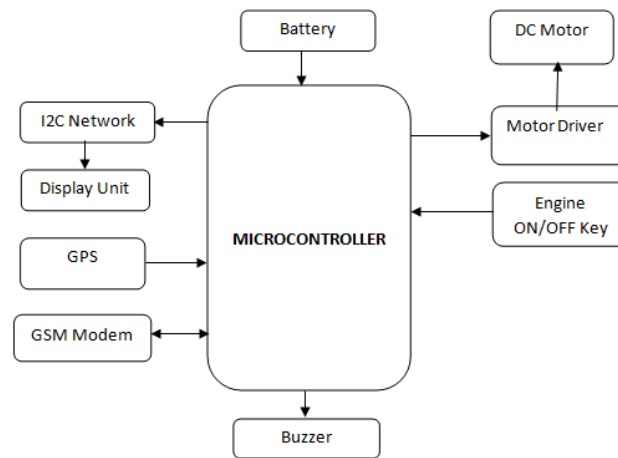
### **I. Introduction**

As vehicles become a lot of refined, vehicle security systems should be stronger than ever before. The rise in human-machine interactions in our daily lives has created computer program technology {progressively increasingly more and a lot of} more necessary. Physical gestures as intuitive expressions can greatly ease the interaction method and change humans to a lot of naturally command machines. During this project, a miniature MEMS measuring system based mostly recognition system which may acknowledge numerous hand gestures like up, down, etc., in 3D house is constructed. The popularity system consists of device knowledge collection, segmentation and recognition. The importance of accuracy during a positioning system has more and more been stress for intelligent transport system applications supported position info, together with advanced driver-assistance systems, electronic toll assortment, intersection collision warnings, and control.

Today, the satellite-based international Positioning System (GPS) is wide used for such applications as a result of the GPS receiver provides vehicle position and speed knowledge in international coordinates. However, a standalone GPS receiver cannot fulfill the positioning needs of ITS applications because of the occasional temporary loss of satellite affiliation and signal errors. To produce continuous, accurate, and high integrity position knowledge, the positioning system ought to be power-assisted by extra sensors like associate direction system, vehicle motion sensors, automatic road maps, cameras, radar.

In this paper we have discussed about the related work, the proposed work, the architectural diagram and its application in the near future.

## II. BLOCK diagram



**BLOCK DIAGRAM FOR RFID**

### EXISTING SYSTEM:

Existing System today, here we've to implement a RFID technology to manage the vehicle felony. Here the user have the RFID tag with the key itself and therefore the key pit have the acceptable RFID reader to reads the actual own key to start out the vehicle by the user. This prevents the automobile from being "hot-wired" when entry has been achieved.

Disadvantage of RFID rather than the protection the RFID technology have the foremost disadvantage with vehicle. We tend to don't grasp, if the automobile might steal the automobile in conjunction with the key.

### PROPOSED SYSTEM:

Proposed System Due to the disadvantage of RFID technology we are going to overcome this problem by Advanced GPS, GSM based immobilizer. By using the technology we have control the theft and also monitor the car if stolen.

### WORKING PROCESS

Working In our paper we have a tendency to propose a way which may be aforementioned as advanced wireless IMMOBILIZER. We use GSM that is on the market altogether components of the planet and GPS for observance thievery identification and management. victimization the technology, whenever your automotive engine can begin, GSM can send a message to the user with the assistance of PIC concerning your automotive standing. If anyone starts the vehicle there lies GSM can send the message to the user. however if while not your data if the automotive is been started then you'll be able to send a message from your mobile to the quantity within the automotive, therefore we've got to spot the fuel injection system of the automotive. Here the PIC device might be put in within the automotive it'll send the message to the owner through the GSM electronic equipment. GPS device may additionally mix with the device within the automotive; it tracks the vehicle and gather the position of the car concerning the latitude & meridian info to identical mobile user (owner) through the PIC.

## III. CONCLUSIONS

In this paper, This approach delineated here presents a way to stop the vehicle thieving by implementing sensible gravitative lock, cryptanalytic keyless entry, adjustable motion alarm sensitivity, and conjointly used kind track and monitor the vehicle by house owners at anytime from anyplace. This feature is extremely helpful particularly just in case of motor vehicle thieving. if the vehicle is somehow hacked into and brought, you'll be

able to send message which will slowly cut-off the fuel offer, thereby disabling the vehicle. A servo Motor controlled valve is employed to chop the fuel offer.

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