Gsm based portabel vehicle security system

Law, Security

This project is made for the purpose of vehicle security. Project is based on the Global System for Mobilecommunication(GSM). This project is designed for the immobilizing of the vehicle by GSM mobile phone.

The project consists of a circuitry with Microcontroller AT89c51 (MCU) and GSM modem in a vehicle and a GSM handset for Owner. The circuitry is constructed on the base of MCU which is assembled with Max-232 for the interface between MCU and GSM modem. Max-232 is a level converter used for the interface between the TTL and non TTL devices. Max-232 act as a bridge between the MCU and the GSM modem. Relays are used for the activating and deactivating the alarm and the locking system of the vehicle doors.

A serial communication link is developed between the MCU and GSM modem. A connection from the starter of the vehicle is connected to an input interrupt pin of the MCU. When there comes a security breach (i. e. Someone tries to start the car) a signal is sent to the MCU telling that someone is stealing the vehicle.

If there comes such a situation, then through an intelligent program (running in the MCU) a message through GSM modem is sent to the Owner asking for the vehicle control or activation of the alarm. If answer is negative then after receiving the message, MCU will automatically turn on the alarm and will lock all the doors of the vehicle. If Owner allows, then vehicle can start.

Todayscience and technologyhas so much emerged in our daily life that we are Incomplete without its advent. The modes of communication are also changing as thetechnologydevelops. From a land line telephone to GSM

wireless technology and then the Intranet. Today GSM technology other then communication can be implemented in other security task as well.

Due to technology the remote control access has moderate the common person life very much that today we demand every event on our finger tips reach. As the present decade has seen the large development of cellular mobile technology. It has become an essential part of every one life.

And if we use the same GSM technology for our around world security? Yeah today using GSM feature we can secure our far around object just clicking your mobile.

Over the past decade, real-time tracking and management of vehicles has been a field of mounting interest. Now it has developed into a powerful and marketable package due to its low-cost and varying facilities such as Anti-theft system and Client identification.

The importance of this module can be understood more clearly by this example. i. e., A business man sitting in a meeting listen the buzzer sound of the vehicle, till to any action the vehicle would been stolen. May be the vehicle is out of sight. So in this case may be the alarmed not been in a reach to be listen by the owner.

But if owner of a expensive vehicle has a GSM vehicle system installed. Then before any one try to open the door, a message will come first time informing him about the security threaten. But if some one be able to access the vehicle ignition switch (starter) and when he pushes the key, the second time interrupt will be generated and a message will be sent to the owner,

informing about the permission of vehicle start. If the owner enter a Master code key, and then press ‘ Y’(FOR YES), the vehicle will start. But in a case of ‘ No’ reply the system will permanently immobilize the vehicle.

And in addition alarm will be buzzed, and automatically the door will be locked. The outstanding feature is that if due to any reason message can’t be delivered at the right time, the module will count for a pre-defined time, if during this time there is no response from the other node; the system will halt the process and again reinitializes the task. These are the all features we implement in our project module. Previously short radio security system was implemented with a detection device,

This was not with upward features and has some drawbacks? As mobile technology is at its development edge, GSM is our core communication engine owing to which the position of the vehicle is notified to the client as well as our base station.

This project provides enhanced security as whenever any security bench (interruption) occurs, a text message (SMS) will be sent to the desired number in order to take necessary measures.

The information sent and received is done by using short messaging which makes this system further cost-efficient. This security system is more secure then the previous one with extra features as:

The earlier system range was limited but with mobile long distance security is possible. So in this way if a thief manage to open the door through a master key, the system will count on trying to start engine after sending

message to the owner Also permanent immobilization of engine on “ NO” message from owner. The system will also close the lens and lock the doors of a vehicle. As well as giving alarm to show that vehicle has threaten from thief. Another feature is that any time we can change the identification code Manually whenever we want to change it.

This GSM based vehicle security system has been implemented in first world countries as well as in Europe.

But this technology has not been so common in third word countries and Pakistan. The available module in market is imported from outside world which is very costly and also not in a common use and access.

Our project based on GSM has been designed simply by using easily available component, and simple design. Also its advantage is that it is very cheaper, and their fore it can be very affectively launched in market as a productive product.