For more Project details visit:

http://www.projectsof8051.com/gps-based-vehicle-theft-detection-system-using-gsm-technology/

Code	Project Title
1805	GPS based Vehicle theft detection system using GSM technology

Synopsis for
GPS based Vehicle theft detection system using GSM technology
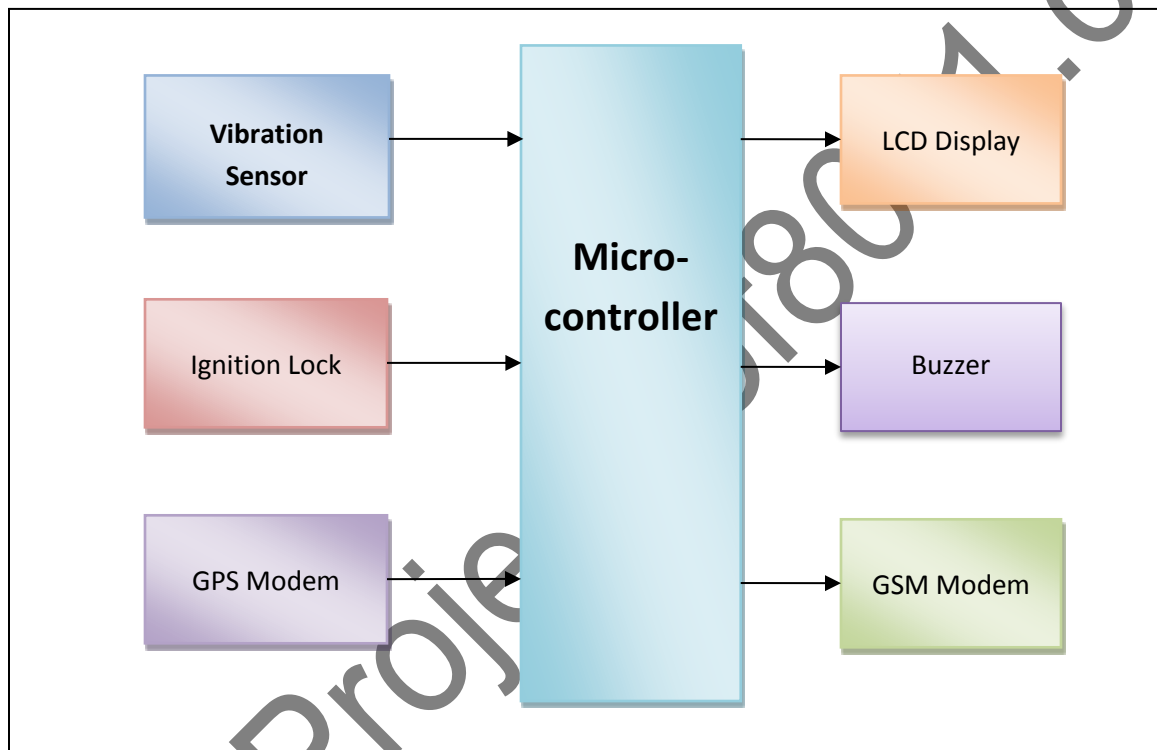
Introduction

Every alternate day we hear news about vehicle theft. Some of these vehicles are never traced. However with the use of the this project, owner can find his/her car in few minutes

This project detects the vehicle theft. Then it activates the Tracking system. Microcontroller reads the vehicle co-ordinates using the GPS modem. Then Microcontroller sends text SMS to the owner of vehicle using GSM modem. We have provided Ignition lock with this project. System activates the vibration sensor once the user removes key from the lock. After this if system detects the vibration then

it acknowledges it as an invalid access to the vehicle. System treats it as a vehicle theft. System immediately turns on the Buzzer and sends text SMS to the user. Then Microcontroller continuously sends SMS to the owner of vehicle. This SMS contains Longitude and Latitude of vehicle. Owner of vehicle can copy paste this message contents into Google map and can track the exact location of the vehicle.

BLOCK DIAGRAM

Block Diagram Description:

1) Vibration Sensor: It is a kind of Piezo-electric sensor. It detects the amount of vibration, compares it with threshold level set by user and gives high pulse at its output. We have used Digital output vibration sensor.

2) Ignition Lock: This is used to identify that owner has left the vehicle. Any action after key removal will be considered as invalid access to the vehicle.

3) Microcontroller: We have used 8051 series microcontroller, AT89s51. 8051 communicates with sensor, ignition key, LCD display, GPS modem and GSM modem.

4) LCD display: This is non-mandatory component of the circuit. However it is important part while developing the project.

5) GPS modem: It send out data on serial port. This data contains various information including Longitude and Latitude of the vehicle's current location.

6) GSM Modem: Microcontroller sends AT commands to the GSM modem. Then GSM modem sends SMS.

ADVANTAGES:

1) This project can be used in transportation vehicles of Companies, schools, colleges and industries.

2) This project can be used in our cars and even in bikes.

APPLICATIONS:

1) This project can be used in transportation vehicles of Companies, schools, colleges and industries.

2) This project can be used in our cars and even in bikes.

Future development

1) We can add vehicle engine locking system

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