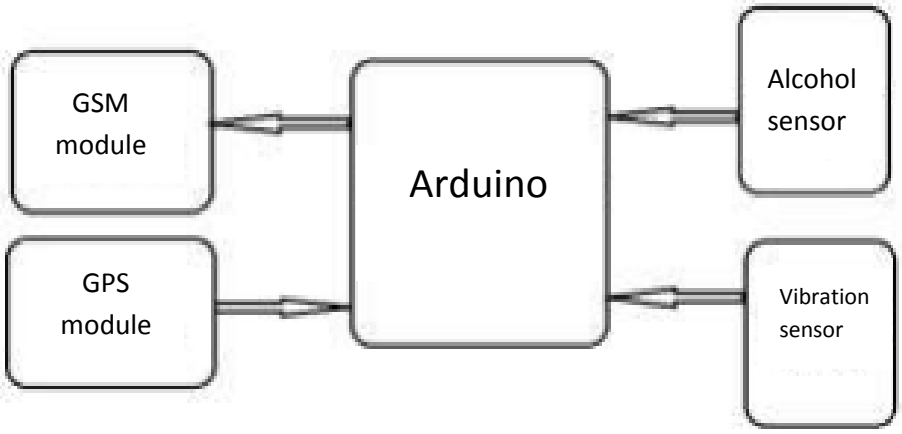
Stolen Vehicle Detection Using GPS & GSM Accident Detection System

INTRODUCTION

In today's world there is a severe increase in the use of vehicles. Such heavy automobile usage has increased traffic and thus resulting in a rise in road accidents. This takes a toll on the property as well as causes human life loss because of unavailability of immediate safety facilities. Complete accident prevention is unavoidable but at least repercussions can be reduced. Proposed system makes an effort to provide the emergency facilities to the victims in the shortest time possible. In big organizations the drivers make illegal use of the vehicles thus resulting in financial, time loss of the organization. Apart from these purposes the system can be used for tracking of stolen vehicles or travelling luggage, fleet management and vehicular sales etc. The system incorporates a single-board embedded system that contains GPS and GSM modems connected with a microcontroller. The entire set-up is installed in the vehicle. A vibration sensor is used. It measures the vibration at the location it is placed. The signal is then compared with the standard values which further confer the accident of the car, unnecessary shock or vibration produced by machines, tilt of the car with respect to the earth's axis can be identified with the level of acceleration. Global Positioning System (GPS) is used to identify the location of the vehicle.GSM is used to inform the exact vehicular location to the precoded numbers. Message will give longitude and latitude values. From these values location of accident can be determined.GSM modem provides a two way communication by using a SIM card. Such a module works the same as a regular phone. The project aims at intelligent security system providing situational awareness and agile safety.


GSM
module
GPS
module
Arduino
Alcohol
sensor
Vibration
sensor