

SMART CAR ANTI-THIEFT SYSTEM

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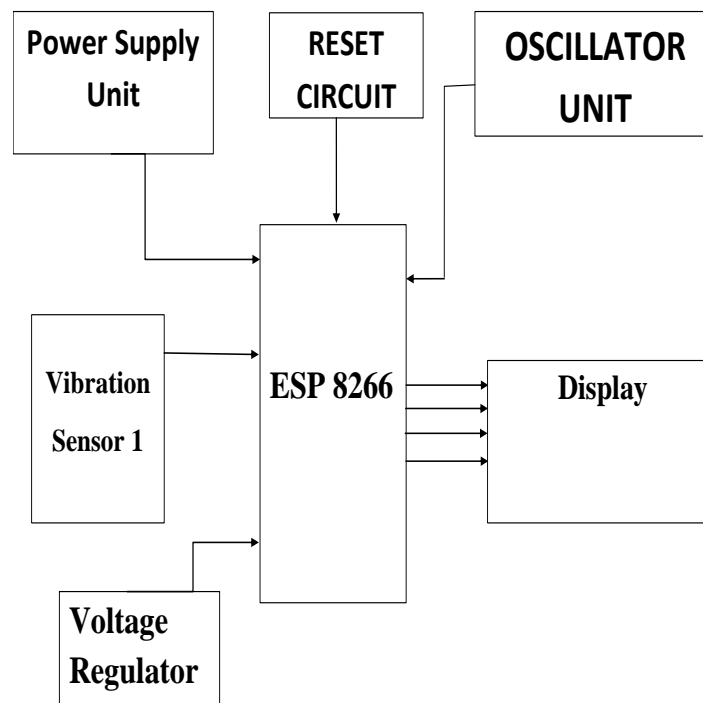
Abstract:- An automobile remote alarm system based on IOT communication network is introduced. The IOT module and Microcontroller is combined with the system, vibration used to achieve short centralized message service (SMS), Gmail notification and pop up notification and alarm and theft-proof of automobile. The shortcoming of traditional systems including less security and lower alarming range is overcome, and the cost of this system is cut down, so it should have good application prospects.

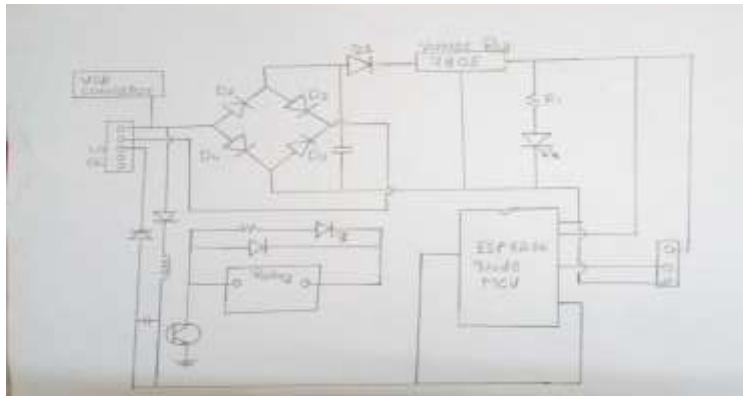
1. INTRODUCTION

Automobile industry is in a high speed development state for several years. Automobile's appearance impacts and becoming the progressive symbol of modern society. However, because the rise of the car trade, vehicle thief case is increasing. At present, in the top market of the automobile anti-theft production is CMOS chip production, However, chip anti-theft production is with a coffee security and little alarm scope, that cannot be found once lost however.

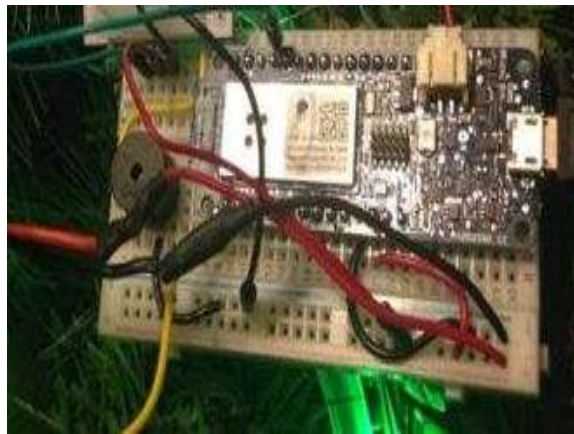
The car anti -theft system that we have implemented will able send SMS , Gmail and push notification on the owner's phone, through a Wifi module ESP8266 this module will hit the trigger alarm in the car and also send emergency signal to the owner's phone. This system is possible since we have used and vibrating sensor. Even after the theft manage to brut open the car and steal the car he can be tracked down by the GPS system that we have built in this Node MCU.

BLOCK DIAGRAM AND CIRCUIT DIAGRAM





2. METHODOLOGY



Module image

This system is smaller in size and can be easily adjusted to the car's door. This seamless technology is achieved through NodeMCU ESP8266 and vibrating sensor and IOT.

The power provided is meant by victimization. The LM78XX/LM78XXA series of three-terminal positive regulators are units offered within the TO-220/D-PAK package and with many mounted output voltages, creating them helpful in a wide range of applications. Each kind employs internal current limiting, thermal shutdown and safe operational house protection, creating it primarily indestructible. Although designed primarily as mounted voltage regulators, these devices are employed with external elements to get adjustable voltages and currents. After the system is active.

The first phase of this system is vibrating sensor, this sensor works in piezo-electric sensor when the thief tries to open door of the car vibration generated at the sensor end it passes high signal to the MPU, this data is interpreted by the MPU and alarm triggers the alarm used in here is a buzzer it is driven by an oscillating unit which generates oscillating voltage. Oscillating voltage alternately squeezes and releases the piezo element. Must apply changing voltage, a steady HIGH or LOW won't work. The buzzer case supports the piezo element and has resonant cavity for sound transfer.

Then data is transmitted to the server through the Wi-Fi module, which is then received by the server. Currently we have used Blink site's server for the data transfer between our system to owner's phone. The blink server then passes forward the data to Android blink platform APK, which can be customized and instructed to generate SMS, push notification, Gmail when a particular command from the server is received.

3. APPLICATIONS

- VIP vehicle tracking.
- Vehicle Security Applications.
- Ambulance tracking.
- Navigation systems

4. CONCLUSION

Advanced Car Security System is very commonly used in homes, offices, vehicles, bank and so on. These system are becoming increasingly important in large cities and it is more secured than other systems. The main motive is to create an seamless anti thief security with 4 layers of alert system i.e. alarm SMS Gmail and push up notification, the system has a higher response time and also GPS tracking inbuilt in the system without any additional GPS module of coordinate tracking.

5. REFERENCE

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BIOGRAPHY

Bhavna A. Ambhore is a student of National Institute of Electronics & Information Technology Aurangabad and securing MTECH DEGREE in electronics and her area of interest is security and cyber system.

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