AUTOMATIC ENGINE LOCKING SYSTEM THROUGH ALCOHOL DETECTION IN ARDUINO USING IOT

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Abstract: *Alcohol driving is the leading cause of road accidents. Alcohol Detection requires the stopping vehicles and it manually scan the drivers breadth analyzers. In the system that allows a alcohol sensor with arduino board along with a GSM module to send message notification and LCD display to show alcohol is detected and it automatically lock the vehicle motor. Then the system first allows configuring the user's numbers into the program. And the driver is drunk by alcohol above permissible limit sensed the input triggers by providing required voltage. Thus the system provides alcohol detection using engine locking through arduino incidents automatically.*

KEYWORDS: Arduino UNO, MQ3 Alcohol Sensor, GSM module, DC motor, LCD Display.

INTRODUCTION:

We hear lot of accidents due to drunk driving and it will not be in stable condition. So it rash driving is the in convenience for other road death for the drunk driver and not for others. In this system uses a compact arduino uno board. Programs are developed in embedded C.

The main purpose for this project is "Automatic Engine Locking System Through Alcohol Detection using Arduino". Most of these days many accidents are happening became of the alcohol detection of the driver or the person who is in the vehicle. Almost all the countries in the world are facing major accidents because of Drunk & Drive. In this project is designed for safety of the people seating the vehicle.

PROPOSED SYSTEM:

In this proposed system uses MQ3 alcohol sensor with arduino along with GSM module to send message notification for users numbers and LCD Display to identify the alcohol is detected or not and DC motor to sensed by the alcohol and it automatically stop the motor. And the system check the permissible limit then the sensor will be triggered the processor about the respective voltage. Thus the system will automatically stop the motor and it send message to the users.

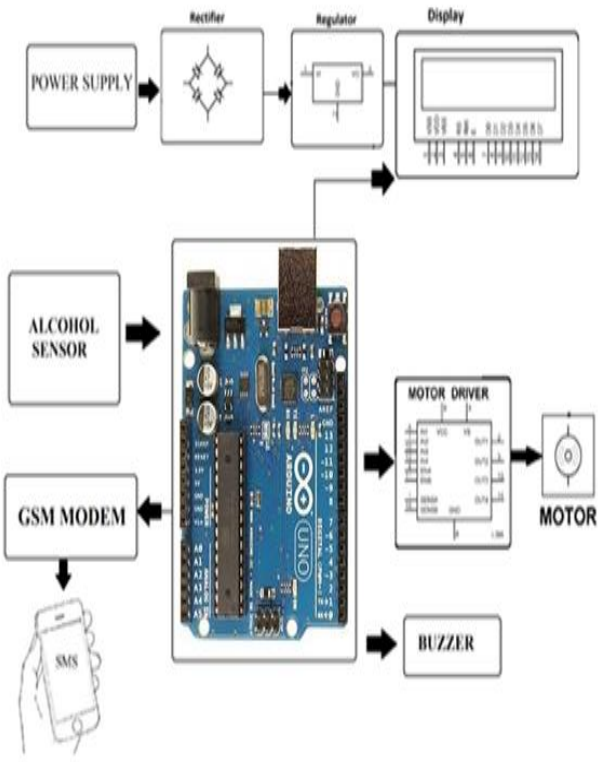
HARDWARE REQUIREMENTS:

- Power Supply
- Arduino UNO
- MQ3-Alcohol Sensor
- Buzzer
- Rectifier
- Regulator
- LCD Display
- DC Motors
- GSM Module

SOFTWARE REQUIREMENTS:

- Arduino IDE
- Embedded C Programming

ARCHITECTURE:



FUTURE ENHANCEMENT:

- We can implement Heart Rate Pulse Variability to find accurately identify the driving behavior of drivers and to assist them.

- We can implement GPS technology to find out the location of the vehicle.

CONCLUSION:

An effective solution is provided to develop the intelligent system for vehicles which will monitor various parameters of vehicle in between constant time period and will sent data to the concerned persons. This is done by using platforms like Arduino, Sensor, DC motor, LCD display. The whole system has the advantage of small volume and high reliability .This system brings innovation to the existing technology in the vehicles and also improves the safety features hence providing to be an effective development in the automobile industry.

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