International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 04 Issue: 10 | Oct -2017 www.irjet.net p-ISSN: 2395-0072

Alcohol Sensing Alert with Engine Locking Using IOT

Shiraj Umrani [1], Sohel Shaikh [2], Abdulkadir Mujawar [3], Prof. Sandeep Yadav[4]

[1,2,3,4] *Department of Computer Engineering*
Trinity Academy of Engineering Pune, Maharashtra, India

Abstract - *The aim of our paper is to makes human driving safe and to overcome accident rate due to the drunk and drive. Driving under the influence of alcohol has affected and killed countless of people's lives . due drink driver put his self in risk along with other peoples. So we are here proposing an innovative and initial system to reduce the accidents due to the drunk and drive. According to the proposing system the car is controlled automatically driver can't be drive car after drinking. We are making use of alcohol detection sensor(MQ-3), microcontroller(), IOT device, LED. The system is trying to make safe life setting inside the vehicle and surrounding people.*

***Keywords*: The automatic control system, the alcohol sensor, microcontroller, IOT Devices.**

1.INTRODUCTION

"Drinking is not only injurious to drunken driver it also affect the surrounding area and people."

Now day's road accident is major problem all over the world. As report by WHO(World Health Organization) in its first Global status report (2014) 80,000 of Indian people are killed on roads due over speeding, drunk driving and other reasons. Drunk driving is a major factor for rise of deaths on roads. Drink and drive not only bring road traffic hidden danger to others, but also affects the safety of his own life. Most of the accidents are occurring outside the cities due to the drunk driving and no testing methodology has yet been adopted to avoid these fatalities on roads. In India every year traffic accident caused by drunk driving 3 thousands of deaths and more th1an 6 thousands of injuries in year and its increasing rapidly. According to the our system, the car is controlled automatically, can't be driving after driver drinking, thus avoid the occurrence of drunk driving.[1] Other Wide areas of drunk fatalities are suicides, unmanned railway crossing, main city traffic..

2. Literature Survey :

Now-a-days, mobile phone is used mostly by all people with internet usage are also at all.so these mobile phone also provide communication platform as they are equipped with 2G or 3G network .There are lots of cause of accident of car and they are drunkenness of driver, drowsiness of driver, unconsciousness of driver, and many time what happen driver is not responsible for accident but their (car) neighboring car behavior also have made role to enforce accident. There are also some system have been implemented to avoid accident but that do not give proper solution to implement in car to avoid various accidents that they are normally being happen. For example when driver at speed suppose 80 km/h suddenly stop ignition system may lead to chances of dangerous accident.

In [2] , they had use PIC 16876A controller, Alcohol sensor, LCD Display And Alarm system to notify driver only, ignition system was immediately off when detected alcohol

In [3] , IR sensor was used to detect obstacle which comes in front of this sensor(vehicle), and when obstacle detected vehicle was stop. It was also monitoring the toxic gases such as CO2,LPG, Alcohol from inside area of the vehicle .If there is high content of gases then SMS had been send to authorized person to notify only.

In [4] , It describes a real-time online prototype driver-fatigue monitor. It uses remotely located charge-coupled-device cameras which was equipped with active infrared illuminators to acquire video images of the driver. Various visual cues that typically characterize the level of alertness of a person are extracted in real time and systematically combined to infer the fatigue level of the driver. The visual cues employed characterize eyelid movement, gaze movement, head movement, and facial expression. If the eye of driver is being continuously closing it mean eye-blink frequency is beyond the normal state and it is in sleeping condition then ignition system would be off immediately

In [5], It describes how breath alcohol concentration exhaled by driver is detected through the alcohol sensor MQ303A, the sensor output voltage signal through ADC0809 after converting input to MCU

3. Our System:

Now day's road accident is major problem all over the world. Alcohol detection in vehicle and automatic engine locking system. Now days accidents are increasing due to drunk and drive. Our system could resolve this problem which growing rapidly. By using sensor, microcontroller, relay circuitry and IOT device we are implementing the system to control the read accident due to drunk and drive.

4. ALGORITHM STRATEGIES TO BE USED FOR SYSTEM :

1. Starting vehicle by driver. Check speed of car.
2. If it is zero then start sensing by various sensor & notify detection .In this case alcohol is mainly checked if it detected then stop ignition .
3. If speed is greater than 2 kmph then again sensing started. Detection of various parameter will be sense by sensor & will be notify.
4. At a same time if alcohol is detected then fuel supply will blocked.
5. Vehicle will stopped & notify detection to relative and police station.

CONCLUSIONS

In this project we have developed a real time model that can automatically lock the engine when a drunken driver tries to drive a car. Now-a-days car accidents are mostly seen. By fitting this alcohol sensor into the car, we can save guard the life of the driver and also the remaining passengers. It is very simple application. The life time of the project is high. It has low or zero maintenance cost and of course low power consumption.

This is a developed design to efficiently check drunken driving. By implementing this design a safe car journey is possible decreasing the accident rate due to drinking. By implementing this design, drunken drivers can be controlled so are the accidents due to drunken driving. Government must enforce laws to install such circuit in every car and must regulate all car companies to preinstall such mechanisms while manufacturing the car itself. If this is achieved the deaths due to drunken drivers can be brought to minimum level. In this type of system, future scope can be safely landing of car aside without disturbing other vehicles.

REFERENCES

[1] Accidental Deaths And suicides in India 2015 - NCRB

[2] M.H. Mohamad , Mohd AminBin Hasanuddin, Mohd Hafizzie Bin Ramli "Vehicle Accident Prevention System Embedded with Alcohol Detector", IJRECE,Volume 1- Issue 4 October

[3] "Embedded Controller For vehicle Obstacle Detection and Cabin Alert System" .pdf

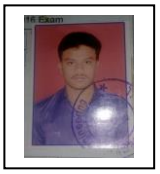
[4] "Accident Prevention using eye-blinking and head movement " ,ETCSIT2012,IJCA

[5] Wang dong , Cheng quan cheng, China"The automatic control system of anti-drunk-driving" IEEE -2011

BIOGRAPHIES

Shiraj D. Umrani (Student)
Trinity Academy of Engineering, Pune

Sohel Samad Shaikh (Student)
Trinity Academy of Engineering, Pune



Abdulkadir S. Mujawar (Student)
Trinity Academy of Engineering, Pune