Alcohol Detection and Accident Prevention

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Abstract- *The recently survey government is said 75 percentage of road accident is done by drunk and drive .And the small cities accident range is 40 percentage to 70 percentage. on this survey government declare overall of 100 accident and 25 to 27deaths occurs on the road due to not wearing the seat belt . The Alcohol Sensor we are implement on the steering . And this project is totally depends on embedded System. this project is Arduino based project. The Arduino is an open source electronics platform based on easy to use hardware and software . Arduino board are able to read inputs light on sensors and turn it into an output activating a motor. GSM system was developed as a digital system using time division multiple access technique for communication purpose. A GSM digitizes and reduces the data, then sends it down through a channel with two different streams of client data, each in its own particular time slot. And the GSM is use to send Massage to Car Owener. And the Altrasonic sensor is use to measure the distance between steering and Seat belt this sensor is check the driver wearing seat belt or not. This sensor range capacity is 0 cm to 300cm.*

Keywords- Alcohol Detection System, IOT ,Seatbelt control system ,GSM.

I. INTRODUCTION

The main thing in this topic is alcohol detection. the recently survey goverment is said 75 percent of road accident is done by drunk And Drive And the small cities accident range is 40 to 70 percent. On this survay goverment declare 100 accident and 25 to 27 deats occurs on the road due to not wearing the seat belt. So i put sensor on the front side on seat belt. And this topic is depends on the IOT so i use Uno Ardiuno in this topic And the Ardiuno is open source electronic platform based on easy to use hardware and software.And the last main thing is gps is used in it.With the help of this proposed model, we have tried to achieve the objectives like, detection of alcohol consumption by the driver and matching it with the threshold value which we have calculated considering the study of BAC (Body alcohol content) and others factor. If the value exceeds the threshold value then the ignition should be in OFF state and vice versa in other state. To achieve the next objective i.e. controlling the ignition with the status of the seat belt of the driver, we have designed a switch based electrical circuit, depending on the status of the seat belt whether it is worn or not the switch will control the ignition system of the vehicle. For the safety purpose of the vehicle and the persons sitting inside it, when the ignition is on and the vehicle is in the moving state, we are continuously monitoring different parameters like speed, acceleration, temperature etc. at real time. This is used for detection of over speeding and rash driving of the vehicle and it can also be used for accident detection by determining the position of the vehicle i.e. whether the vehicle is in tilt position or nor- mal position. We have used MQTT IOT communication protocol and blynk server for the real time communication between the proposed system and the stakeholders.

II. CONCLUSION

The aim of this project is to provide the safety to the drivers of the vehicle and the peoples who takes the road safety rules casually. The road safety rules are designed for the betterment of the peoples. But some of them are not at all serious of it and they do not follow the rules defined. Hence have designed the application where the vehicle will not even start if it detects the driver is drunk. Many people's drive vehicle without wearing the seat belt. Thus our system will check these two conditions. First the driver should not be drunk and the second he should have wear the seat belt. If these conditions will satisfies then only the vehicle get started. The system will help is reducing number of road accidents. Drivers, passengers and people coming from the road should be safe. And everyone should follow the RTO (regional transport office) rules properly. This is the goal behind this topic

REFERENCES

[1] Shahad Al-Youif., Musab A. M. Ali, M. N. Mohammed Management and Science University Faculty of Information science and Engineering Malaysia 978-1-5386- 3527-8/18/31.00 ©2018 IEEE.
[2] '2017' International Conference on Innovations in information Embed- ded and Communication Systems (ICIIECS).
[3] Proceedings of the Fourth International Conference on Trends in Elec- tronicsand Informatics(ICOEI 2020)

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