

# LIFELINE PREVENTION/ FORESTALLMENT SENSOR

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**ABSTRACT:** As nations around the globe are getting economically stronger and therefore leading to more financially able citizens, further people now enjoy their particular vehicles. Although the road structure has bettered, it's still unfit to manage up with the adding population. With that, more and more road accidents are adding. According to the Indian government, in 2019 about people failed in road accidents. In utmost cases, people die because they weren't incontinently handed medical backing because there's no definite system that can do so. As technologies like IOT have advanced, there's now a need to develop a system that can incontinently modernize the responsible authorities with all the applicable data on the circumstance of a road accident. This paper analyses and proposes a way IOT can be used in this regard in away that can save thousands of lives. Along with IOT the detectors like a speedometer, accelerometer, LED, ultrasonic etc. give data to a microcontroller which matches the detector data with the machine literacy model and determines if there's an accident or not. This way, it becomes a life-saving technology.

**KEYWORD:** IOT, Sensor, Machine Learning, Accident.

## I. INTRODUCTION

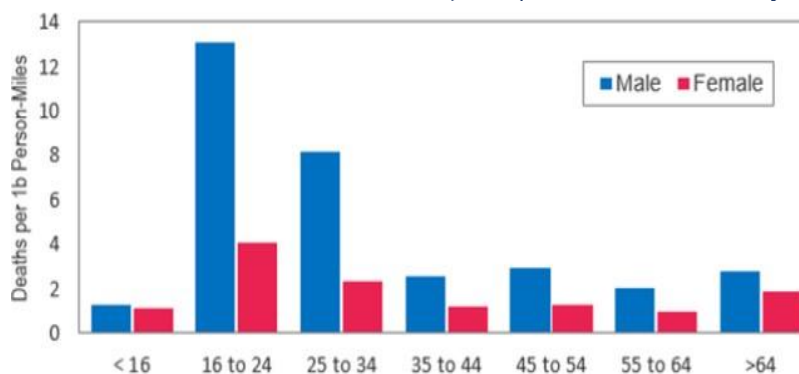
This paper uses the VSS mechanism i.e., The vehicle speed sensor (VSS) measures transmission/transaxle output or wheel speed. The ECM (engine control module) uses this information to modify engine functions such as ignition timing, air/fuel ratio, transmission shift points, and to initiate diagnostic routines.



**Figure 1. Caution Sign which alarms a car while Overspeeding**

**II.LITERATURE SURVEY**

S.NO	AUTHOR	YEAR	METHOD	ADVANTA
1.	AncyJonh, P.R. Nishant	2017	MQ3 sensor is used to detect the alcohol from the breath of the person on the driver's seat. Whether the person has alcohol or not. The sensor is used to detect the person whether the person is fall asleep or not. The piezoelectric sensor provides the value and indicates the presence of the accident. GPS and GSM is used to send the message to indicate if an accident occurs	Used to prevent the accident which are happening due to drowsiness. Speed reduction at the school zones. Speed autonomous controlled in the area of the highway traffic without the driver intervention
2.	NajiTaaib Said Al Wadhwa Shaik MazharHussainKamalud Mohammad Yosof Shaik Ashfaq Hussain Ajay V	2018	The model primarily works with the assistance of IR sensor, Crashing switch, GSM module, LCD, LED, RF module Transmitter and Receiver. All the devices are embedded using Arduino Uno board. The IR Sensor and the crashing switch are mainly used to detect the accidents and send the command back to the microcontroller. SMS and location are sent using GPS and GSM	Predominantly is used to send the SMS to traffic Authorities in case of any accidents occur and to send the message to the people before any serious harm comes to the lives.
3.	Sohel Rana, Md. Rabbi Hasan Faysal, Sajal Chandra Saha, Abdullah Ali Noman KawsikShikander	2021	Haar cascade is used to detect the face of the person. The alcohol detection system works after simple password checking method. It is used to analyze the level of alcohol from the driver's breathe. If it crosses the threshold point, it will shut off the vehicle engine immediately. A simple push up seat belt was used for seatbelt sensor. If the switch is triggered it will be detected as locked, if not triggered it will be detected as unlocked.	The system is focused on stopping the drowsy driver. Utmost care the driver is taken into account. Verifying whether the driver is on alcohol or not. User friendly and more reliable and less costly.

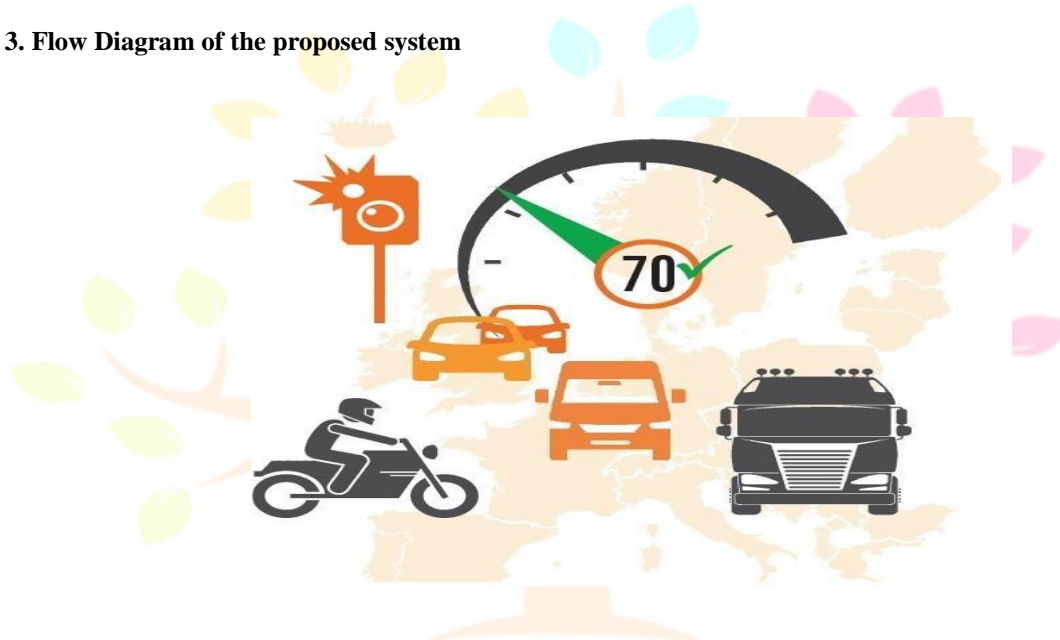


**Figure 2. Survey containing Death Rate Of People due to Accident**

### III. PROPOSED METHOD

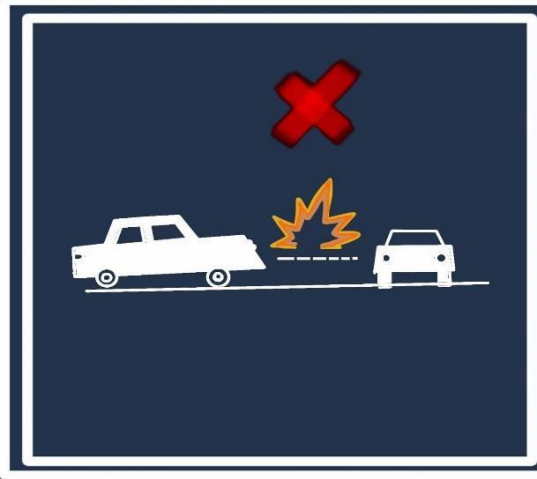
The purpose of this project is to discuss how when a person travels at high speeds, the vehicle warns or alerts the person in two different ways. The first way is by blinking a red LED as a sign of caution. Second, by emitting an alarm with a slightly higher than normal frequency, which causes irritation in your ears, prompting you to lessen the pace.

**Figure 3. Flow Diagram of the proposed system**



**Figure 4. Most trusted, reliable speed limit for a car (For Accident free Travel)**

1. First with the help of the speedometer it checks the speed of the car in which they are driving.
  2. Also if the speed is further than the speed limit set by the government or organization then it provides the LED light signal below the speedometer.
  3. Indeed after the signal also if the vehicle continues to overspeed, sensor will set on and sound is made.
  4. Fine charges is sent to the car owner whose number is added during Registration .
  5. If accident occurs, then with the help of GPS, alert is sent to the nearby police station and hospital.
- Fig 4. Conveys the normal speed of car while travelling to avoid accidents and unfortunate disasters.  
 Fig 5. Tells us the accident collision of two cars.  
 Fig 6. Tells us about the overspeeding of car which might cause accident and life threatening injuries.



For example, the government issued a rule requiring the person sitting in front of you to wear a seatbelt when driving, but some people continue to disobey the rule. As a result, certain car manufactures, such as Honda, have developed a beep sound that sounds when the individual seated does not wear a seat belt. The noise will persist until they fasten their seatbelts. As a result, the person is irritated by the sound and will fasten their seatbelt. As the sound is made when the speed is raised, the person in the car becomes irritated or annoyed, prompting them to reduce the speed limit. We may be able to avoid serious mishaps by using this alarm.



**Figure f6. Over speeding of a Car which leads to Accident**

#### IV.CONCLUSION

This proposed paper mainly focused on Accident Detection and Prevention System. The purpose of this paper is to save thousands of precious lives and decrease the number of accidents in roads. This paper also helps in aid of people even after some disaster with immediate treatment shortly. This is possible by waking the driver by means of LED light sign which glows and gives extreme beep sound when vehicle comes from the other side.

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