



# Survey on Intelligent Accident Detection System and Emergency Services Alert System

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**Abstract:** *In past few years the rate of accidents are increasing day by day and many people die in this accidents due to late treatments, so our paper works to solve this issue in our life. By our paper we could save many lives and save many loved once happiness that they deserve in their life.*

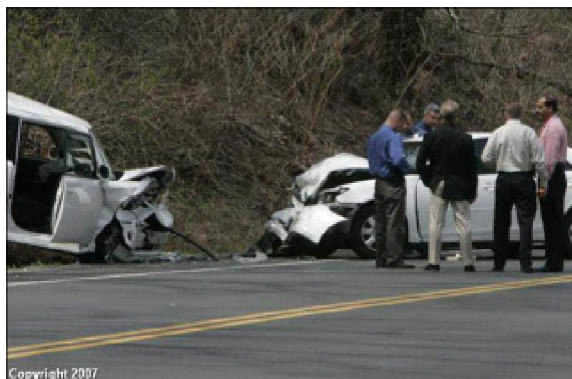


*Also our paper also work on the issue many insurance companies faces that some time they cannot tell or determine that what was the time and date of the accident because they just need the date n time to proceed their pending insurance claims. Our paper will help them to get the exact information about the collusion.*

**Keywords:** Intelligent Accident Detection System

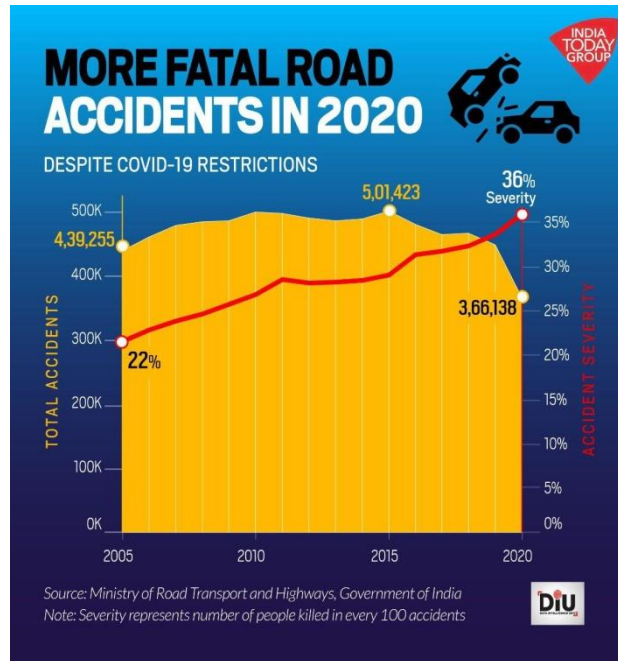
## I. INTRODUCTION

In the previous few years the numbers of accidents occur on the roads are getting higher and higher. Because of this the number of Casualties increases in higher numbers simultaneously. To prevent this, our paper works on a system which could detect the accident impact and contact the emergency services, so the precious lives of the injured person could be saved. Also, we are providing contacts with friends/ families and insurance companies. This results in the families of passengers and drivers getting notified about the accident. The insurance companies also get informed, so they could act fast to provide insurance to the person in need. We send alert messages to the nearest emergency services about the accident. Hence, the accident spot can be located using GPS module.





Automobile is a highly growing industry which happens due to high demand of the vehicle. In every family of India, if we roughly assume that there are around 4 people then almost each person have its own vehicle which forms a ratio of 1:1 which is a lot compare to the population of India. This increasing demand of vehicle results in more traffic on the roads which could result in increase in the number of accidents occurs on roads which are fatal many times



### II. TECHNICAL SYSTEM

So for our system we are going to use some technical hardware part and some software part. It will be an embedded system whose work will be to detect the impact and send it to the emergency services and families. This system will work as below.

For our system we have to 1<sup>st</sup> select a sensor which could detect whether the impact is accrue or not and for this we studied some different types of sensors such as impact sensors, vibration sensors, pressure sensor, shock sensor, etc. By this study we have decided that the best sensor for our system would be vibration sensor or pressure sensor. These sensors could provide us with needed important information we need after and during impact. After sensors we studied about the microcontrollers which would be more compatible with our sensors.

We also read some papers on this topic that could help us and in those papers we learn that there are some similar system already exist which uses accelerometer to detect the impact on the vehicle by using the sudden drop in speed. This is a good way to detect the impact but it is not so accurate. Also we learn that this system does not provide some other emergency contacts such as friends/families contact, insurance companies contact.



Also we are going to prove a web application and a mobile app which will help the user to fill up his and his car details so it will help him at the time of accidents. Main work of the app will be to generate a account of the user where all his details such as name, age, medical background, insurance, etc. And also the car details such as car owner, number, model, previous history of car, car insurance, etc.



### III. CONCLUSION

By all the survey we can conclude that the numbers of accidents are increasing every day and due to this the numbers of casualties are also increasing. This happens due to slow or no medical assistance at the spot at the right time. So to prevent these casualties our system could help the accidental peoples.

### REFERENCES

- [1]. Vehicle Accident Detection and Reporting System Using Gps And Gsm.” by Aboli Ravindra Wakure, Apurva Rajendra Patkar, IJERGS April 2014.
- [2]. Purva Javale, Shalmali Gadgil, Chinmay Bhargave, Yogesh Kharwandikar, Vaishali Nandedkar, “Accident Detection and Surveillance System using Wireless Technologies”, IOSR Journal of Computer Engineering (IOSR-JCE), pp 38-43, Volume 16, Issue 2, March-April 2014.
- [3]. IOT Based Automatic Vehicle Accident Alert System.” By Nazia Parveen, Ashif Ali, Aleem Ali.
- [4]. An Automatic Car Accident Detection Method Based on Cooperative Vehicle Infrastructure Systems DAXIN TIAN, (Senior Member, IEEE), CHUANG ZHANG, XUTING DUAN, AND XIXIAN WANG.
- [5]. WHO, “Global status report on road safety 2018,” [https://www.who.int/Violence\\_injury\\_prevention/road\\_safety\\_status/2018/en/](https://www.who.int/Violence_injury_prevention/road_safety_status/2018/en/).
- [6]. H. L. Wang and M. A. Jia-Liang, “A design of smart car accident rescue System combined with wechat platform,” Journal of Transportation Engineering, 2017.