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# GSM and GPS Based Accident Detection System

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**Abstract:** With the growing population the use of vehicles has become superfluous and this has led to increase the hazards and the road accidents, which causes huge loss of life because of the poor emergency facilities.

The purpose of the project is to find the vehicle where it is and locate the vehicle by means of sending a message using a system which is placed inside of vehicle system, Most of the times we may not be able to find accident location because we don't know where accident will happen.

When a vehicle meets with an accident immediately Vibration sensor will detect the signal, and sends it to Arduino microcontroller traffic.

Microcontroller sends the alert message through the GSM modem including the location to the police station or a rescue team. So the police can immediately trace the location through the GPS modem after receiving the information.

## I. INTRODUCTION

### A. Background

With the growing population the use of vehicles has become superfluous and this has led to increase the traffic hazards and the road accidents, which causes huge loss of life because of the poor emergency facilities.

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Microcontroller sends the alert message through the GSM modem including the location to the police station or a rescue team. So the police can immediately trace the location through the GPS modem after receiving the information.

## II. LITERATURE SURVEY

There are chances of duplication of data increases and there is a probability of the documentation of Lorry receipt gone missing/misplaced or torned.

But this information can be generated and manipulated by Goods Loading company /trader in bulk and the track of such data is reckless, so here proposed a " GSM and GPS based accident detection system "

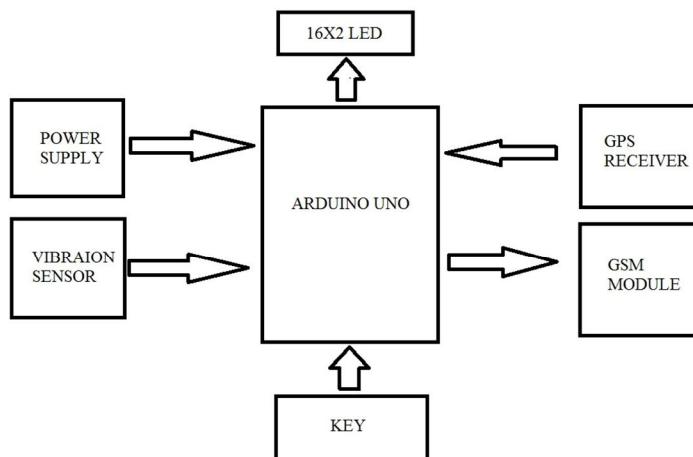
Transport logistics industry are ready for adopting robust custom mobile solutions. From start s to end point of delivery, customers are quick to integrate technology for tracking their shipments.

## III. PROBLEM STATEMENT

The unavailability of the precise methods for accident occurrence detection beside to a reliable locating tool with a quick reporting feature is the major problem under the research. The accidents are also increasing now days. Due to the delay in the arrival of ambulance to the accident spot it causes the loss of human life. So, it is necessary to take the accident victim to the hospital as early as possible.

## IV. PROPOSED METHODOLOGY

Proposes combine independent and complementary solutions in a global accident detection system to provide stable and accurate positioning of car accident even in severe urban environments. The proposed solutions consist of augmenting the navigation solution exploiting the inertial sensor to estimate the dynamics of vehicle to extract the accident.



### V. CONCLUSION

The proposed system is developed to provide the information about the accident occur and the location of the accident .It helps to easily provide the assistant and help to the victim of the accident. This system uses GPS module to locate the vehicle. GSM is used to provide the information of accident. The results of the proposed systems are satisfactory.

### VI. ACKNOWLEDGEMENT

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### REFERENCES

- [1] G. R. Shete, D. A. Shah, A. Gaidhani, S. D. Shinde, and S. R. Sharma, "Smartphone based Vehicle Tracking and Accident Prevention System," International Journal of Computer Applications & Information Technology, vol. 8, p. 172, 2017.
- [2] R. Rathinakumar and D. Manivannan, "Wireless accident information system using GSM and GPS," Research Journal of Applied Sciences, Engineering and Technology, vol. 4, pp. 3323 3326, 2012.
- [3] R. Kumar and K. Jayasree, "GSM & GPS Integrated With ARM Based Event Data Recorder for Accident Detection," IJSEAT, vol. 2, pp. 468-473, 2014.
- [4] P. P. Pingle, A. S. Marathe, and P. R. Ahirrao, "Intelligent Vehicle Accident Detection & Notification System (VADANS) Using Smart Sensor and GPS Technologies," Imperial Journal of Interdisciplinary Research, vol. 2, 2016.





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