

# INTER VEHICLE COMMUNICATION USING RF COMMUNICATION

**Prof. Shalaka Shinde<sup>1</sup>, Ms. Pranali Patil<sup>2</sup>,  
Ms. Pooja Salagarakar<sup>3</sup>, Ms. Rudrali Trilotkar<sup>4</sup>**

*<sup>1,2,3,4</sup> Dept. of Electronics & Tele-Communication PGMCOE, Wagholi, Pune  
Maharashtra, (India)*

## ABSTRACT

*In our transport system we have lot of disturbance between the starting and destination locations like obstacle present in the path, irregularity of nearby vehicle activities, unexpected speed change, etc. In order to reduce these issues cooperative vehicular systems are expected to improve the traffic safety and efficiency through the real time exchange of information between vehicles and infrastructures. In our project, this paper presents the experimental evaluation of different V2V safety applications under real world. Inter vehicular communication for accident avoidance is to improve the traffic safety with the help of three sensors namely eye blink sensor, obstacle sensor and accident sensor. These are used to know about the details of the neighbor vehicles. The details which includes vehicles speed, drivers state and obstacle details. Collecting and sending of details to the neighboring vehicles avoid accidents and the driver can alert from the other vehicles.*

**Keywords:** V2V (Vehicle to Vehicle)

## I INTRODUCTION

The new emerging applications for enhancing traffic safety within the vehicular network environments which can be classified as real-time system[1]. Existing vehicle-to-vehicle safety systems together with new cooperative systems using wireless data communication between vehicles which can potentially decrease the number of accidents on the high way road in India i.e. transmit the messages within the dead lines. According to World Health Organizations (WHO), road accidents annually cause approximately 1.2 million deaths worldwide; one fourth of all deaths caused by injury[2]. Also about 50 million persons are injured in traffic accidents. If preventive measures are not taken road death is likely to become the third-leading cause of death in 2020 from ninth place in 1990[3].

## II WORKING

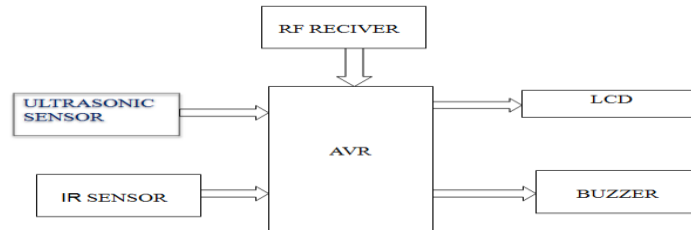
As shown in block diagram the transmitter node is an data collection node which sense the presence on vehicles in roads and sends this information to receiver node which is to inform car driver about the Conditions[4].

### 2.1 Block Diagram

- Transmitter Section



- Receiver Section



### III CONCLUSION

Design of communication protocols in IVC is extremely challenging. Protocols have potential to support many new innovative applications. These technologies can greatly enhance the infotainment, safety, comfort, communication and convenience value of new vehicles. As vehicles become “smarter”, security and privacy gain importance.

### REFERENCES

- [1] L'aszl'oBarab'as, R'eka-Andrea K'aroly, and K'aroly Simon. Live tracking framework for public transportation systems. In Intelligent Systems and Informatics (SISY), 2012 IEEE 10th Jubilee International Symposium on, pages 141–145. IEEE, 2012.
- [2] M Bhuvanewari, S Sukumar, N Divya, S Kalpanadevi, and N Suthanthira Vanitha. Embedded system based automatic ticket vending machine for modern transport system. International Journal of Research in Computer and Communication Engineering, 2(11), 2013.
- [3] Leonid Bolotnyy, Scott Krize, and Gabriel Robins. The practicality of multi-tag rfid systems. In IWRT, pages 100–116, 2007.
- [4] Saurabh Chatterjee and Balram Timande. Public transport system ticketing system using rfid and arm processor perspective mumbai bus facility best.
- [5] Maria Grazia Gnoni, Alessandra Rollo, and Piergiuseppe Tundo. A smart model for urban ticketing based on rfid applications. In Industrial Engineering and Engineering Management, 2009. IEEM 2009. IEEE International Conference on, pages 2353–2357.