ABSTRACT

The aim of the model is to prevent the collision of vehicles by using ultrasonic sensor interfaced with Arduino UNO. The ultrasonic system is used to calculate the distance between the vehicle and the obstacle, then the Arduino microcontroller is used to process the signal and to prevent collision using the auto speed reduction system. The proposed system comprises an idea of having safety while driving. By the study on ultrasonic sensor, we come to know that it uses the sonar waves to calculate the accurate distance between two objects. By using this feature of ultrasonic sensor, we can calculate the distance between vehicles or objects and process the signal to control the vehicle. We can also interface the buzzer or any responding system, that it signals the driver when vehicle reaching to the limited safe distance with another vehicle or object. By this signal the driver can manually reduce the speed by applying brake system.