**OBSTACLE DETECTOR USING ULTRASONIC SENSOR**

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**ABSTRACT**

This report details the implementation of obstacle detector system using ultrasonic sound waves.

Obstacle detection techniques is now the future of smart vehicles with the safety measure and for the visually impaired individuals in the unfamiliar conditions.The technical idea is to transfer and develop a local navigation system with help of several types of equipment and approaches namely sensors, Computer Vision methods, micro-controllers etc. for detecting obstacles in the path. To enable an utmost collision free mobility of the users we intend to use Ultrasonic sensors as its less expensive and easily accessible.

In this project we focuses on the uses of these sensors in distance measurement in vehicular applications and a small prototype designed using arduino , to provide a practical experience with simulation too.

**INDIVIDUAL CONTRIBUTION AND FINDINGS**

I have searched lot of research papers regarding the obstacle detection which includes the ultrasonic sensors ,lidar,radar which includes the objective of vehicle collision alert in automobiles.

We designed the hardware implementation of obstacle detection and alerting user by this we can detect an obstacle under the range of ultrasonic sensor and the alert the user by indicating led and sound from buzzer.

And similar we have done demonstration in software implementation in proteous

**INDIVIDUAL CONTRIBUTION TO PROJECT REPORT PREPARATION:**

The report consist of 7 chapters.Each of the chapter is combined contribution of my group.I have taken help from various sites and refered many videos helped me successfully complete the project.

**INDIVIDUAL CONTRIBUTION TO PROJECT PRESENTATION AND DEMONSTRATION:**

I have done the first half of the presentation which includes the introduction to the obstcle detection using ultrasonic sensor and its objectives and conclusion.

**DIGITAL SIGNATURE**   **DIGITAL SIGNATURE**

Full signature of supervisor’s Full signature of student

