VISVESWARAIAH TECHNOLOGICAL UNIVERSITY

A PROJECT REPORT ON

ULTRASONIC ANTI CRASHING SYSTEM

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ABSTRACT

Low speed shunts and collision are the most common type of accidents which causes enormous damage to life and property. This type of accidents makes up for no less than 75 percent of all motor accidents.

The aim of this project is to design ultrasonic sensors which measures the distance between the device and an obstacle and then successfully avoid crashing into it.This application of a law in physics discloses relatively uncomplicated techniques for reducing the impact of auto collisions by providing aid to the motorist in slowing down his vehicle in time to avoid a hard collision, if such is to occur.

Speed has been determined to be one of the most common contributing factors in vehicle crashes. Various kinds of speed limiters are in current use. This project implements speed limitation based on distance measured between the car and the obstacle and then using an effective anti braking system (ABS) using PWM of the signal, thus the regulation of speed is achieved. The vehicle gradually loses speed as it approaches the obstacle thus alerting the user to initiate necessary action to avoid a crash.