

Review on Anti Accident Braking System

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Abstract

This paper describes a new smart braking system for four wheeler vehicles like cars, jeeps etc. Road accidents are common place in today's scenario. Now a day's no. of accidents are increased as compared to past. Accidents causes worse damage, serious injury and even death. Accidents prevention has been one of the leading areas for research. Mainly focus on prevention of accidents due to nervousness, loss of control, drunken driving, rash driving etc. Manual methods of applying brakes is always dangerous as it leads to accidents. Moreover, road accidents are relatively higher than the all India average.

Keywords: Anti Accident Braking System

I. INTRODUCTION

The number of automobile users is increasing day by day. Unconsciousness of driver, road condition, and uncontrollable speed of vehicle and manual operation of braking systems are the reason of accidents. It is necessary to control brakes automatically through electronics devices to minimize the accident problems. In this research paper, we proposed an effective methodology for automatic controlling of braking system to prevent accidents with the help of electronics engineering. The system consists or ultrasonic sensor wave emitter fitted at the front portion of the vehicles and ultrasonic receiver to receive the signal. The primary objective of this paper is to develop a safety car braking system using ultrasonic sensor and to design a system with less human attention to the driving.

A. Anti-Accident Braking System has following Advantages

- The system eliminates the possibility of collision.
- Low system cost as low level electronics is used.
- Minimum space requirements.
- Visual indication in the form of indication lamp.

B. Anti-Accident Braking System has following Applications

- Small cars.
- SUV and commercial cars.
- Trucks and public transport vehicles.

II. LITERATURE REVIEW

A. Road Accident Statistics of India: 1970-2013

Year	No.of road accidents [in thousand]	No.of road accidental injuries [in thousand]	No.of road accidental deaths [in thousand]	Accident risk [no.of accidents per 100,000 people]	Accident severity index [no.of fatalities per 100 accident]	Fatality risk [no.of fatalities per 100,000 people]	Fatality rate [no.of fatalities per 10,000 vehicles]
1970	114.1	70.1	14.5	21.6	12.6	2.7	87.5
1980	153.2	109.1	24.6	23.1	16.1	2.7	54.4
1990	282.6	244.1	54.1	34.4	19.8	6.6	28.2
2000	308.3	340.2	80.1	30.8	26	8	16.6
2003	336.4	382.9	84.4	31.5	25.8	7.9	12.6
2010	430.6	470.6	133.9	36.3	31.1	11.3	10.5
2013	443	469.9	137.4	36.1	31	11.2	8.6

S.N sidek Intelligent Braking System [2010] has a lot of potential application especially in developed countries where research on smart vehicle and smart highway are receiving ample attention. The system when integrated with other subsystem like traction control system, intelligent throttle system, etc. will result in smart vehicle.

The driver at the end of the day will become a passenger safety accorded the highest priority and journey will be optimized in term of time, duration, cost, efficiency and comfort ability.

The initial requirement for a project work is to identify and understand the nature of the problem. The problem is related to the installment of braking system. Braking system tools and equipments play a vital role in making and installation of the system on the vehicle. The main target of the ultrasonic braking system is that, vehicles should automatically brake when sensors sense the obstacle. This is a technology for automobiles to sense an imminent forward collision with another vehicle or an obstacle, and to brake the vehicle accordingly, which is done by the braking circuit.

III. CONCLUSION

Sensor is reliable for detecting human or animals and this technique certainly can save lots of life. Human lives are most valuable. Pre-crash detection system must be equipped with combination of different sensor. Detection human or animals including obstacles will certainly give us a better solution to reduce the death of human in road crash.

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