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SLEEPERS ALARM

Prof. Monika Maral[1], Akhil Bhaskar[2], Taher Siamwala[3], Abhishek Patil[4], Deepankar Naik[5]

[1]Professor at Dr D.Y. Patil, SOET

[2-5]Students of Automobile Engineering, Dr. D. Y. Patil, SOET, Lohegaon, Pune, Savitribai Phule Pune University.

Abstract - *The reasons that an accident happen is because the driver falls asleep while driving. The accident happened is unexpected think of routine people. In earlier days vehicles were equipped with the alarms which were using motion detector, image processing or by detection of sidelines of road. According to study on human behavioural changes while sleeping, loosening of hand grip (muscle relaxation) & pulse rate lowering takes earlier to the changes of face images or eyelid closing. So by considering this facts & researches, by using the distributed pressure sensor & pulse rate sensor we are trying to decrease response time of the system than earlier systems & give that output to driver's seat to awake the driver as early as possible to prevent accidents. The device is functioning when the signal is detect from human body of driver which has been falls asleep while driving, giving the warning to the driver that will get a sudden shock to give more concentration when driving. That will prevent the driver falling asleep with careful consideration of the consequences.*

Key Words: Anti-sleep device, Intelligent steering system, Accident avoidant, Budget System.

1. INTRODUCTION

In modern usage this sleeper can be used as push buttons to make a grip on steering wheel and this is used to wake up driver from sleep while he is sleeping when he is driving a vehicle by means of buzzer sound in this system buzzer is located near steering wheel. When both hands of driver are released, the buzzer will make the noise which will alert the driver and driver will drive his vehicle by giving attention and the accident occur due to his carelessness will be avoided. The key point of our approach is to design a chain of sensor units, each of them provided with some intelligence and general purpose capabilities. This allows the monitoring of user grasp to detect number of hands on the wheel, loosening grip indicative of the driver falling asleep, or tensing of the grasp indicating driver stress.

1.1 LITERATURE REVIEW

Accident happens is because the driver falls asleep while driving. The accident happened is unexpected think of routine people. In earlier days vehicles were equipped with the alarms which were using motion detector, image processing or by detection of side-lines of road. According to study on human behavioural changes while sleeping, loosening of hand grip (muscle relaxation) & pulse rate lowering takes earlier to the changes of face images or eyelid closing. So by considering this facts & researches, by using the distributed pressure sensor & pulse rate sensor we are trying to decrease response time of the system than earlier systems & give that output to driver's seat to awake the driver as early as possible to prevent accidents. the device is functioning when the signal is detect from human body of driver which has been falls asleep while driving, giving the warning to the driver that will get a sudden shock to give more concentration when driving. That will prevent the driver falling asleep with careful consideration of the consequences.

1.2 METHODOLOGY

In modern usage this sleeper can be used as push buttons to make a grip on steering wheel and this is used to wake up driver from his sleep while he is sleeping when he is driving a vehicle by means of buzzer sound in this system, buzzer is located near steering wheel and push buttons are mounted on PCB which are attached beneath the steering wheel. Characteristic of buzzer is to emit sound when the push buttons are released which is mounted on steering wheel for grip of the steering wheel when both hands of driver are released, the buzzer will make the noise which will alert the driver and driver will drive his vehicle by giving attention and the accident occur due to his carelessness will be avoided.

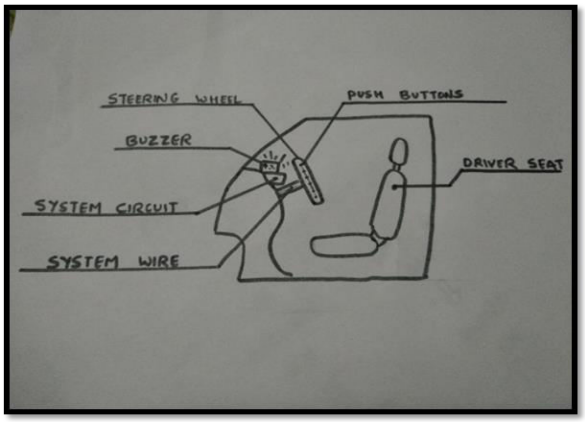

Fig 1. Basic layout

2. MATERIAL SELECTION & PRODUCT PURCHASING

Components	Quantity
Battery (9v)	1
Resistors (10 k)	2
Transistor (BC 547) (NPN)	1
LED bulb	1
Capacitor (10 u)	1
Buzzer	1
Black & Red wire	2 meter
Steering column	1
Steering wheel	1
Push buttons	18
PCB	15x15
ON/OFF Switch	1

3. BENEFITS

This system is used for safety of vehicle & safety of human being & safety of other passengers as well as because it keeps driver alert when he is tired, sleepy , and feeling unwell. This system is very cheap and compact than any other safety system in vehicle so and also it is easy to use ,so it can use in any vehicle. This system is easy to install because it is small and it can also can keep it on dashboard so it small & convenient.

4. CONCLUSION

With the help of the sleepers alarm, the accident can be avoided to much more extinct. Driver can be avoided from falling asleep while driving. The system is under best budget.

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BIOGRAPHIES

Akhil Bhaskar
Final Year Automobile Student
Dr. D Y Patil School of Engineering And Technology

Taher Siamwala
Final Year Automobile Student Dr. D Y Patil School of Engineering And Technology

Abhishek Patil
Final Year Automobile Student
Dr. D Y Patil School of Engineering And Technology

Deepankar Naik
Final Year Automobile Student
Dr. D Y Patil School of Engineering And Technology