



“SMART AND MULTITASKING HELMET BY USING RFMODULE”

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Abstract: - This paper describes a brief study on designing of Smart and Multitasking Helmet. This increasing number of road accidents as well as the number of death has become a serious concern for government that's why there is need of making Helmets an integral accessory of a two wheeler vehicle. In this projects we have studies all the aspects that makes helmet a compulsory as well as convenient accessory.

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INTRODUCTION:-

The main focus behind the study was to make Helmet a necessary of a two wheeler vehicle & to know why people don't use helmet even after knowing that it is safe to wear. It after studying all the aspects we come to know that people don't find it convenient to wear helmet because of a sense of irresponsibility. They don't find it compulsory as helmet not directly connected to two wheeler as any other accessory.

There are two aspects. There should be a direct connection between a helmet and a two wheeler which will make it compulsory for a driver to wear helmet and should be made comfortable in as many aspects as possible to make a user free to wear it. A wireless circuitry is to be implemented between the belt of helmet and the ignition wire so that helmet should also be properly fit and safe for the bike Rider.

There should be a conviction in mind of a person while wearing helmet this is the reason why we are implementing Bluetooth speaker which will help in many aspects but it will restrict the calling while driving and listening to music. The circuit will be implemented such that the user can receive the voice while driving but can't transmit until he stops the two wheeler.

LITERATURE REVIEW: -

According to the recent Research paper in 2016 titled '2 Helmet using GSM and GPS technology for accident detection and reporting system', the author specially developed this project to improve the safety of the bikers. The objective of this project is to study and understand the concept of RF transmitter and RF receiver circuit. The project uses ARM7, GSM and GPS module. The project also uses buzzer for indication purpose. Whenever the accident will occur then accident spot will be noted down and information will send out on the registered mobile number. [2] The major disadvantage of this project is they are not using any display device for showing the current status. Also the cost of helmet is still high since helmet is designed for only one purpose.

According to the Research paper in 2015 titled 'Microcontroller based smart wear for driver safety', in this paper author has discussed on the speed of the vehicle. In this application the project will be monitoring the areas in which the vehicle will be passing. On entering any cautionary areas like schools, hospitals, etc. the speed of the vehicle will be controlled to a predefined limit. LCD is used for showing the various types of messages after wearing the helmet. The author has worked only on the phenomenon of accident which is generally happens due to drink and drive. But as we know that the accident in the area is not happens only due to consuming alcohol but also other parameters like speed are also responsible.

According to the Research paper in 2016 titled 'Smart Helmet', in this paper the main objective of author is to force the rider to wear the helmet. In this competitive world one of the survey says that the death tolls due to motor bike accidents



are increasing day by day out of which most of these casualties occurs because of the absence of helmet. Traffic police cannot cover remote roads of city. That's why over primary objective is to make the usage of the helmet for two wheelers "compulsory". Thus, no one other than the owner himself, who doesn't have "password" which would have been created by the owner, can use the bike. In this author has proposed the feature that the bike will not start unless the bike rider does not wear the helmet. The other this module basically deals with the checksum of rider if he is wearing the helmet or not on first place to achieve this ultrasonic sensor is been used. based on this the signal are been sent to the next module voice recognition module use for authentication purpose. Arduino is also used in this project which is an open source tool for making computer that can sense.

According to the Research paper in 2015 titled 'Smart Helmet', in this project the author has proposed the smart helmet because of growing bike accident. People get injured or might be dead because of not wearing helmet. Continuously no one follows road rules. So to overcome these problem this helmet is been designed. The middle class families prefer to buy motor bike over four wheelers, because of the low prices, various variety available in the market. Author has also used encoder IC that receives parallel data in the form of address bits and control bits the other author has used smart system for helmet. But in this project author have not focused on the major issue that will occur in future regarding the alcohol and many other.

RESULT: -

In this projects we have studies all the aspects that makes helmet a compulsory as well as convenient accessory.

CONCLUSION: -

The present situation in our country we are not using this type of two wheeler and this technology. To reduce the manual efforts and human errors, we need to have some kind of automated system monitoring all the parameters and functioning of the connections between the two wheeler personnel and the parents.

REFERENCE: -

<http://www.google.co.in>
<http://www.en.Wikipedia.org>
<http://www.techrepublic.com.com>
<http://www.atmel.com>
<http://www.zDnet.uk.net>