UNI2GO MOBILITY HEAD GUARD

Heshadvith HK[1], DS Sourav[2], Rahul Kumar Rohilla[3], Podli Sivateja[4], Manasa DS[5]

Department Of Computer Science and Engineering, Ewit Bangalore, India[1-5]

Abstract: Two wheelers are widely used than different shape of automobiles due to its low value and ease. maximum of the time rider doesn't want to put on helmet that could bring about deadly injuries. under the influence of alcohol and trip and rash driving are the principal factors for on because of loss of focus, under the influence of alcohol and riding and no longer sporting helmet. The primary problem of all riders is safety. taking into consideration the safety of shipping boys who paintings for online business tour across regions using two wheelers, wherein safety of motorcycle rider counts.

Keywords: UNI2GO Mobility, Two wheelers, Motorcycle.

I. INTRODUCTION

The project attempts to give delivery boys safety. Even though wearing a helmet when driving is now required, this practise persists. The number of traffic accidents has sharply increased in recent years. It is now required to create a mechanism to reduce accidental deaths due to the increase in traffic accidents. India only complies with two of the seven automobile safety requirements set by the World Health Organization (WHO). Two-wheelers make almost 25% of all fatalities in traffic accidents. According to the figures, about 75% of motorcycle riders hurt in collisions wore helmets at the time. People operating two-wheelers while under the influence of alcohol and traffic violations are the primary causes of these fatalitiesis severe accidents are caused by individuals using two-wheelers

while intoxicated and breaking traffic laws. When compared to those who were not wearing helmets, fatalities who were wearing them had a higher chance of surviving. In this project, there are two units: the helmet and the vehicle unit. The helmet will be in charge of starting and stopping the vehicle. The alcohol sensor, accelerometer sensor, and touch sensor are just a few of the sensors used in the sensor module of the helmet unit. The comparator connects all of the aforementioned sensors to the RF transmitter. A sensor module will be attached to the helmet to determine whether the wearer has donned one and to check for alcohol consumption. The signals are received and relayed the moment the wearer dons the helmet.As soon as the motorbike unit gets signals from the helmet unit, the rider is able to start the vehicle. Through GSM, the database is updated with the helmet's reputation. Even though a helmet is worn and a standing upload to the database is made when drinking alcohol, the vehicle remains off.

II. LITERATURE REVIEW

1. Smart Helmet Integrated with Motorcycles to Support Rider Awareness and Safety Based Internet of Things
Author: Somantri, Indra Yustiana
Published in: 2022 International Conference on ICT for Smart Society (ICISS)

Abstract: Vehicle owners must be more vigilant due to an upsurge in motorbike theft and robberies. There have been several efforts made to stop motorcycle theft and robberies, including the use of numerous locks and alarms. Sadly, some of these strategies fall short in the face of today's pervasive motorbike theft. Additionally, there is currently a relatively low level of helmet usage knowledge among motorcyclists, making it potentially fatal if a biker is involved in a catastrophic accident while not wearing a helmet. In order to foresee present circumstances, this article will design and build a prototype helmet for safety riders. The motor of the motorcycle is incorporated with this intelligent helmet. If a motorcycle is too far away from a smart helmet, the engine won't shut off, , and this smart helmet won't let any of the registered cell phones know about the incident or where it happened. This helmet can also ensure that the rider cannot use his motorcycle without it. utilising a GPS module to correlate events with latitude and longitude coordinates, a wireless module to connect to the motorcycle engine, a GSM module for an alert and notification system, and this smart helmet is created based on the Internet of Things. Electricity from motorcycles has been successfully integrated with smart helmets.

A. IOT Based Smart Helmet for Construction Workers

Author: V. Jayasree, M. Nivetha Kumari
Published in: 2020 7th International Conference on Smart Structures and Systems (ICSSS)

Abstract:

Every day the demise rate of the construction employees at the development web page is growing. however nevertheless there aren't any such treatments to reduce this fatality price. This device suggests a creative bendy helmet for the construction workers to provide security and rescue measures in case of any emergency scenarios. This helmet is designed to offer continuous tracking of the workers and to safeguard them from any health dangers while working. The suggested device outlines a creative, less expensive helmet for construction workers made of chromium that has accelerometer and gyroscope sensors incorporated in it. While the accelerometer sensor is used to measure the worker's linear acceleration or motion, the gyroscope sensor indicates how the person rotates and is oriented with respect to gravity. Both of those sensors are used to detect falls that could be brought on by exhaustion, drowsiness, and other factors. The helmet's camera displays the physical conditions of persons who are developing.

B. Smart Helmet using IoT Author: P. Brahmendra S. Prakash

Abstract:

The skillfully guarded pinnacle's function is to display a mechanical and structural social affair for identifying and disclosing errors. The shape is constructed using sensors and exceeded on enrollment frameworks. The processor that constantly keeps an eye out for unusual combinations receives respect from the accelerometer thanks to the prevalent noteworthy evidence architecture. By using cloud-based support, the emergency contacts are informed of the disaster's specifics as soon as it happens. The general masterminding structure is used to receive the car location. The architecture ensures a dependable and quick growth of information about the episode that is updated to the cloud and accessible via IOT. in this way, by way of making a mind-blowing protective apex for disaster identification is built using the inescapable structure that serves as a positioning component for the vigilant city zones.

C. IOT-enabled smart helmet for safety and accident detection

Author: Akshatha, Anitha, Anusha, Prema, Rumana Anjum **Published in:** International Research Journal of Engineering and Technology (IRJET),   Mar 2019

D. ANALYSIS AND DESIGNING OF IOT BASED SMART HELMET

Author: Mrs. G. Rajitha, K. Akhila, M. Sreekanth, T. Naveen Kumar
Published in: Engineering and technology research journals published internationally (IRJET),
June 2021

Abstract:

This paper implements and develops the clever helmet for bike riders. in this paper, we've reviewed the recent developments in developing smart helmet gadget. most people lost their lives in road accidents, due to severe head accidents, it is also critical to folks who survived faced injuries. An attempt to reduce the probability of motorcycle rider injuries, inebriated and force instances. The smart helmet gadget is used to prevent the motor motorcycles and to pick out the motorcycle injuries on time for well-being of person. additionally, the smart helmet machine analyzed in this venture is utilized in mining enterprise to alert the miners from dangerous occasions in the mine. The studies also facilitates to apprehend the smart helmet machine advanced over the period and currently by means of the usage of emerging era like net of things (IOT). The person can get the bendy driving, using this system. The proposed gadget is person-friendly and ensures safety and surveillance at a low maintenance value.

III.   CONCLUSION

The proposed helmet design provides a low-cost method of detecting alcohol and preventing accidents. This task is affordable, real-time manifestible, and has a small-footprint product.