IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.67
Volume 5, Issue 5, March 2025

IoT Based Smart Helmet

Dhaval Mali, Pratik Sonawane, Kalpesh Patil
Department of Electrical Engineering
Guru Gobind Singh Polytechnic, Nashik, India

Abstract: *The rapid increase in road accidents, especially among two-wheeler riders, has highlighted the need for enhanced safety measures. This paper presents an IoT-based smart helmet designed to ensure rider safety by incorporating an alcohol detection system. The helmet is equipped with an alcohol sensor that detects whether the rider is under the influence of alcohol. If alcohol is detected, the system prevents the vehicle from starting, thereby reducing the risk of accidents caused by drunk driving. Additionally, the helmet includes a smart locking mechanism that ensures the vehicle starts only when the helmet is worn. The system utilizes microcontrollers and wireless communication to interface with the vehicle's ignition system. This smart helmet aims to enhance road safety and enforce responsible riding practices.*

Keywords: road accidents