

Smart Intelli-Helmet for Biker's Safety

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Abstract: The increasing number of road accidents involving motorcyclists necessitates the development of innovative safety measures. While leveraging the current technology and using sensor and microcontrollers it is possible to design a robust helmet. A smart helmet is a protective type of headgear that protects the rider from any type of head injury along with added features that makes the experience of riding a bike a desired one. This research paper presents a comprehensive review and analysis of smart helmets designed to enhance biker safety. Smart helmets integrate advanced technologies such as sensors, communication systems, and augmented reality to provide real-time monitoring, accident detection, and improved situational awareness. The paper discusses the key components and features of smart helmets, their benefits, and potential challenges in their adoption. Additionally, it examines the existing research and identifies future directions for the development and implementation of smart helmet technologies.

Keywords: Smart helmet, biker safety, sensors, communication systems, augmented reality, real-time monitoring, accident detection, situational awareness

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