TITLE:ENHANCING SAFETY-STRATEGIES FOR ACCIDENT DFETECTION AND PREVENTION

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ABSTRACT:

Road accidents in our country are increasing day by day. Most of the accidents occur due to not wearing helmet, which can cause severe head injuries or even fatality of the rider. So it is necessary to make it mandatory to wear helmet while riding on a bike. In this project we have made a prototype of smart helmet. It has an Infrared sensor inside the helmet, which will detect whether the rider is wearing helmet or not. The bike will not start until the rider will wear the helmet. There are two modules on is mounted on helmet and another is mounted on vehicle.

The development of a Smart Helmet utilizing the ESP-NOW protocol, aimed at enhancing safety and connectivity for individuals engaged in activities such as biking, motorcycling. The Smart Helmet integrates various sensors to detect environmental conditions, monitor vital signs of the wearer, and assess potential hazards in real-time. Leveraging the ESP-NOW wireless communication protocol ensures low-power, high-speed, and robust connectivity between the helmet and a central monitoring system, such as a smartphone or a dedicated receiver. The Smart Helmet offers a comprehensive solution For promoting safety, situational awareness, and rapid response in dynamic environments, contributing to injury prevention and overall well-being.

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