ABSTRACT

The Internet of Things (IoT) has revolutionized various industries, including transportation, by enhancing safety, monitoring, and real-time communication. This paper proposes an IoT-based Automatic Vehicle Accident Detection and Visual Situation Reporting System, designed to detect vehicle accidents and provide immediate situational awareness to emergency responders and concerned authorities. The system uses a combination of sensors, including accelerometers, vibration sensor, GPS, and embedded in the vehicle to monitor its status continuously. When an accident is detected based on predefined thresholds for sudden changes in velocity, orientation, or impact force, the system automatically triggers an alert, transmitting real-time data to a cloud-based server.