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(57) Abstract :
The IoT-Based Automatic Vehicle Accident Detection and Rescue System is an advanced solution designed to improve road safety by automatically detecting vehicle accidents in real time and facilitating immediate emergency response. The system integrates IoT sensors (accelerometers, gyroscopes, and GPS modules) to monitor vehicle movement and condition continuously. Upon detecting an accident, the system assesses the severity based on the impact force, vehicle orientation, and other parameters, ensuring a tailored response.Once an accident is detected and assessed, the system automatically sends alerts to emergency services and designated contacts, providing accurate location coordinates and incident severity details via mobile communication networks (GSM, LTE, or 5G). The system also integrates cloud-based storage to process and store accident data for further analysis and long-term safety improvements. By minimizing response times, optimizing the allocation of emergency resources, and enabling proactive safety

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