Car Accident Detection and Alert System

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Abstract: *Due to the high death and property damage rates from traffic accidents, road safety is a serious problem. This study suggests a novel traffic accident detection and warning system in response to this difficulty, with the goals of enhancing prompt response and minimizing damage. This system is made up of many different parts, such as an energy sensor, accelerometers, Arduino microcontrollers, GPS modules, and GSM modules. Combining these characteristics allows the system to differentiate between minor and severe occurrences, recognize and categorize collisions according to impact severity, and detect overturned vehicles. The system notifies designated projects in the precise accident zone of any serious accidents detected. The process includes developing algorithms, designing hardware, and implementing the system. Thorough testing is then done to assess the system's dependability and performance. The outcomes demonstrate how well the suggested approach works for precise accident detection and quick emergency response. This research uses technology to lessen the effects of traffic accidents and save lives, which advances road safety legislation.*

Keywords: Accident detection, GPS, Force Sensor, GSM.

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333