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An Android-Based System for Automated Accident Detection and Alerting

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Abstract: *This paper presents an Android-based solution designed to automate accident detection and enhance emergency response efficiency. The proposed system consists of five main components: User, Ambulance, Administrator, Hospital, and Police. By leveraging GPS technology, embedded sensors, and a mobile application, the system facilitates rapid communication and precise location tracking. It addresses the issue of delayed emergency responses by initiating automated alerts and minimizing human intervention. Additionally, the platform reduces false alarms and improves overall user experience. The core innovation lies in combining real-time data from sensors with inter-agency communication, which leads to more effective and timely accident management. Simulation tests validate the system's capability to reduce response times and potentially save lives*

Keywords: *GPS technology*

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