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(57) Abstract :

The present invention relates to a real-time accident detection and emergency response system designed to significantly reduce Emergency Medical Services (EMS) response times in critical, life-threatening road accidents. The system comprises a Raspberry Pi 5, which can detect road accidents using a camera and notify nearby hospitals via a NodeMCU in real-time for quick response of Emergency Medical Services (EMS). The accident detection unit is installed overlooking accident-prone areas to maximize effectiveness. A security pole is located near the accident-prone site, fitted with an alarm light and sound, designed to draw the attention of bystanders. Additionally, emergency contacts/next of kin are also sent SMS and call alerts via GSM module when bystanders send the license plate number of the vehicle(s) involved in the accident.

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