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(57) Abstract :

The present invention discloses a computer model for real-time pedestrian safety detection comprising multimodal sensors (101), a preprocessing unit (102), a feature extraction module (103), a deep learning model (104), an intent prediction engine (105), a safety alert generator (106), and an output interface (107). The system detects and predicts pedestrian behavior with high accuracy and low latency, ensuring proactive accident prevention. Deployable in vehicles, roadside units, and smart city infrastructures, the invention provides a robust, scalable, and intelligent solution for enhancing pedestrian safety in dynamic urban environments.

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