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(57) Abstract :
The present invention relates to a computer-enabled tool (100) for real-time traffic incident detection, comprising video input module (102), sensor fusion unit (103), pre-processing unit (104), machine learning classifier (105), and communication module (106). The system integrates AI, computer vision, and IoT technologies to monitor live traffic streams, identify anomalies, and transmit automated alerts with incident details to traffic authorities and emergency responders. The invention provides accurate, scalable, and robust detection under diverse traffic and environmental conditions, improving safety, reducing congestion, and minimizing human intervention.

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