

Peer Review

Review of: "Fall Detection in Passenger Elevators using Intelligent Surveillance Camera Systems: An Application with YoloV8 Nano Model"

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Addressing these gaps would strengthen the validity, fairness, and real-world applicability of the paper.

1. The study combines 300 self-captured elevator images with 10,000 external images but lacks clarity on whether the external data reflects elevator-specific conditions (e.g., confined spaces, lighting variations). This risks a domain shift.

Suggestion: Validate dataset compatibility and augment only elevator-specific data to ensure environmental relevance.

2. Falls are motion-driven, yet the model relies solely on spatial features, potentially missing critical temporal cues (e.g., posture transitions).

Suggestion: Integrate lightweight temporal modules (e.g., optical flow) or justify spatial-only limitations through comparative ablation studies.

3. While deployed on an NVIDIA Jetson, metrics like inference speed (FPS) or latency are absent, hindering practicality assessment.

Suggestion: Report real-time benchmarks (e.g., FPS, resource usage) to validate deployment feasibility.

4. Consent is mentioned, but anonymization methods (e.g., blurring) are omitted.

Suggestion: Detail privacy-preserving techniques (e.g., edge processing, synthetic data) to address ethical risks.

5. Falls are rare; the imbalance in training data could bias results.

Suggestion: Discuss sampling strategies (e.g., oversampling falls, focal loss) to mitigate bias and improve generalizability.

Declarations

Potential competing interests: No potential competing interests to declare.