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## 8th International Conference on Smart Computing and Informatics : Submission (183) has been created.

1 message

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Microsoft CMT <noreply@msr-cmt.org>  
To: pratya.nu@up.ac.th

Fri, Jan 30, 2026 at 11:47 PM

Hello,

The following submission has been created.

Track Name: SCI2026

Paper ID: 183

Paper Title: Human-Centered Smart Computing Approach for Elderly Driver Risk Assessment Using Computer Vision Analytics and Dashboard Prototype

**Abstract:**

This research presents a human-centered smart computing approach to assess elderly driver risk using computer vision analytics and a dashboard prototype. The aim is to evaluate the risk of elderly drivers based on in-car image and video data, with three main goals: proposing a system framework, designing and developing a prototype, and evaluating the prototype through a questionnaire. Data were collected from in-car cameras in real-world settings. The data were then processed by splitting frames, resizing images, enhancing quality, reducing noise, and detecting and cropping faces. Behavioral features related to risks, such as blinking, yawning, and head posture, were extracted and input into an AI model to classify behaviors as normal or risky and to categorize risk levels as low, medium, or high. The results are displayed on a dashboard that supports continuous status monitoring and video review. The user experience (UX) and user interface (UI) of the prototype were evaluated using a simulator with 30 elderly participants, who completed a 5-point scale questionnaire. The findings showed a mean UI score of 4.52 (standard deviation = 0.49) and a mean UX score of 4.61 (standard deviation = 0.46), both indicating excellent suitability for elderly users. In conclusion, the prototype is suitable for elderly users, reduces learning barriers, and facilitates systematic risk monitoring for future applications.

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Secondary Subject Areas: Not Entered

**Submission Files:**

[SCI\\_2026\\_04\\_PID\\_xxx@sciconf.co](#) (003) - Submission File [2026-01-29] - no author.pdf (380 Kb, Fri, 30 Jan 2026 16:39:18 GMT)

Submission Questions Response: Not Entered

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