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**8th International Conference on Smart Computing and Informatics : Submission (182) 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: 182

Paper Title: Robust Banana Detection in Monitor-Captured Images: A YOLO-Based Study on LED and LCD Domain Shift

**Abstract:**

This research presents a method for detecting and classifying banana varieties from repeatedly captured images displayed on computer screens. These images often contain noise and exhibit domain differences between LED and LCD screens, making computer recognition challenging. The study developed a model based on the YOLO architecture and evaluated its performance using metrics such as precision, recall, mAP50-95, validation loss, and processing time. Error patterns were analyzed with a confusion matrix, and the prototype system was tested under real-world conditions. The results demonstrated very high model accuracy. YOLOv9s achieved an mAP50-95 of 0.979, precision of 0.992, recall of 0.997, and validation loss of 0.14, while YOLOv10s achieved an mAP50-95 of 0.9741, precision of 0.991, recall of 0.996, and validation loss of 0.201. Most errors stemmed from background separation rather than confusion between varieties. Prototype testing confirmed the model's speed and suitability for practical use.

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Secondary Subject Areas: Not Entered

**Submission Files:**[SCI\\_2026\\_04\\_PID\\_xxx@sciconf.co](#) (004) - Submission File [2026-01-29] - no author.pdf (640 Kb, Fri, 30 Jan 2026 16:43:12 GMT)

Submission Questions Response: Not Entered

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