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Peer Review

Review of: "Plantation Monitoring Using Drone Images: A Dataset and Performance Review"

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The manuscript presents an automated tree health monitoring system using UAV-captured RGB images, addressing the limitations of satellite-based approaches.

The introduction of a new dataset for individual tree detection and health classification (Good, Stunted, Dead) is a significant contribution.

The finding that depth-wise convolution improves performance on the proposed dataset is insightful and can guide future research.

The CVAT annotation tool was used for bounding box annotation, ensuring precise labeling.

The experiments cover both tree detection (using YOLO models) and health classification (using CNNs), making the study comprehensive.

The overfitting issue in deeper networks (VGG19, GoogleNet, EfficientNet) is evident.

The dataset is currently restricted to mango trees, limiting generalizability.

The paper tests YOLOv8, YOLOv7, and YOLOv9, but lacks a detailed comparison of speed vs. accuracy trade-offs.

Include mAP (Mean Average Precision), inference time, and IoU (Intersection over Union) scores for better evaluation.

Declarations

Potential competing interests: No potential competing interests to declare.

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