



AI Weeds Detector

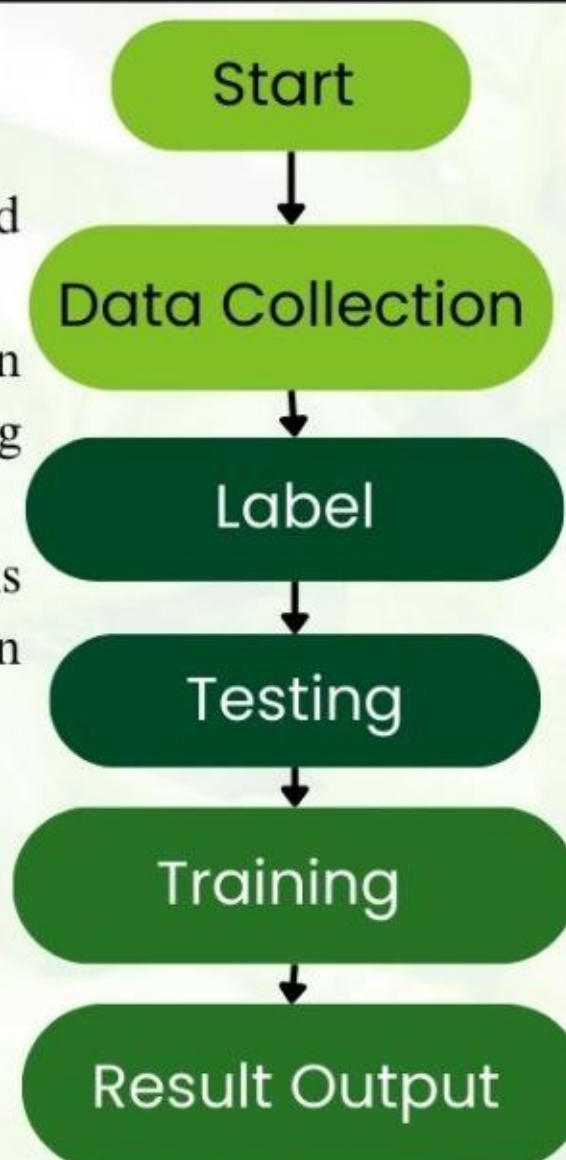
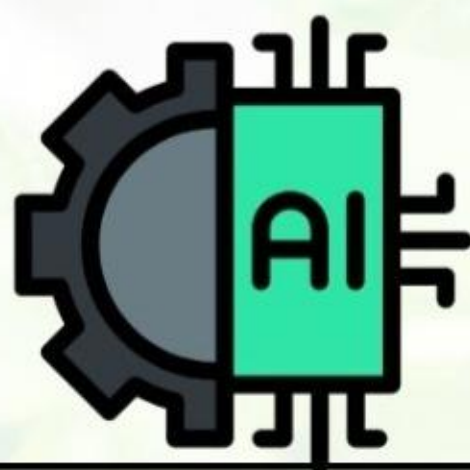
Introduction

Weed control is a major challenge in agriculture, with around 1,800 weed species causing up to 31.5% of crop losses, worth about RM 135 billion annually (Agronomy, 2022). Traditional methods like herbicides and manual weeding are costly, inefficient, and harmful to the environment. Artificial intelligence (AI) and computer vision, especially YOLO object detection, offer a more accurate and sustainable solution for weed management.

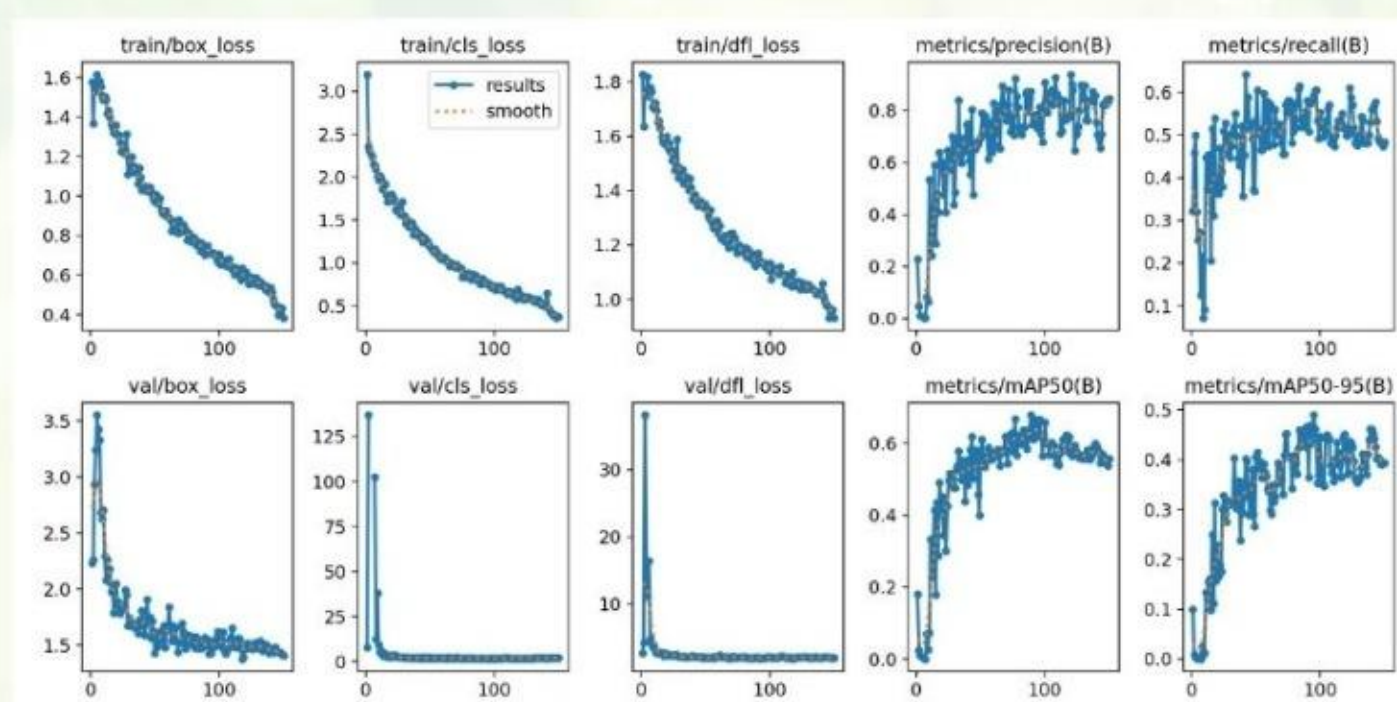


Objectives

- To evaluate a computer vision techniques for weed detection.
- To design and implement an automated weed detection system using YOLOv8 and CNN-based deep learning models.
- To assess the performance of the proposed system in terms of accuracy, efficiency, and real-time applicability in agricultural environments.



Result



Conclusion

AI and computer vision offer a smarter way to handle weeds compared to herbicides and manual weeding. YOLO-based detection can provide farmers with a fast, accurate, and eco-friendly solution to improve crop yields and reduce costs.

