IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 7, May 2024

Plant Sentry: Web-Based AI for Crop Protection

Ruchi Gedam[1], Dr. Narendra G. Bawane[2], Sanjay Balwani[3]
Student, Department of ETC[1]
Professor, Department of ETC[2,3]
Jhulelal Institute of Technology, Nagpur, Maharashtra, India

Abstract: *The timely and accurate detection of plant diseases is crucial for effective crop management, mitigating yield losses, and ensuring food security. However, smallholder farmers and agricultural communities in remote areas often lack access to expert advice and advanced diagnostic tools. This thesis presents the development of a decentralized plant disease detection system, aiming to bridge this gap and empower farmers with a user-friendly and accessible solution. The proposed system is a web application that leverages cutting-edge technologies, including image processing, deep learning, and decentralized data storage. To prioritize data privacy and security, the system implements a decentralized data storage solution based on technologies such as the InterPlanetary The system's performance is evaluated through accuracy, reliability, and usability across various scenarios and environments.*

Keywords: Plant Diseases, Food Security, Diagnostic, Web Application, Deep Learning.

DOI: 10.48175/IJARSCT-18687