

Plant Disease Detection

Minor Project - 18CSP107L

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Abstract

One of the important and tedious task in agricultural practices is detection of disease on crops. It requires huge time as well as skilled labor. This paper proposes a smart and efficient technique for detection of crop disease which uses computer vision and machine learning techniques. The proposed system is able to detect 20 different diseases of 5 common plants with 93% accuracy

Introduction

Plant diseases can cause significant damage to crops, leading to economic losses and food security issues. Machine learning techniques have shown great potential in plant disease detection, enabling early diagnosis and effective management. This project aims to explore advanced machine learning algorithms and their applications in plant disease detection using ML and AI.



Motivation

In the diverse and vibrant landscapes of India, agriculture has been the backbone of the nation's economy for centuries. However, the persistent threat of plant diseases continues to challenge the livelihoods of millions of farmers across the country. It is in this context that our project, focused on Plant Disease Identification using Machine Learning (ML) and Deep Learning, takes center stage.





Scope

1. Data Collection and Annotation
2. Algorithm development
3. Disease Detection
4. Model Training and Validation



Objective



The primary objective of our Plant Disease Identification project is to develop a robust and efficient-AI-powered system that revolutionizes the detection and management of plant diseases.

References

1. New Plant Diseases DatasetImage dataset containing different healthy and unhealthy crop leaves. - Kaggle
2. PlantDoc: A Dataset for Visual Plant Disease Detection - IIT Gujarat
3. Plant disease detection using CNN - IIT Gandhinagar

Thank You !

