



ARTIVERSE 2.0

Team Name	: TechMinds
Theme	: Student Innovations
Title	:AI POWERED PLANT IDENTIFICATION AND PLANT DISEASE CLASSIFICATION SYSTEM
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ABSTRACT

The Plant Disease Detection project uses **Convolutional Neural Networks** such that the diseases in the **plants are identified** based on the images of tainted leaves. The system takes a dataset of both **normal and 39 different disease** affected leaves and feeds them to the model after going through preprocessing techniques. Real-time Diagnosis and Solutions: It makes it **easier to diagnose diseases** by use of a mobile or **web application** and provides improvement in **fertilizer recommendations** hence improves the intervention time. Early detection and recommendations draw action that **prevent crop losses** and identify more appropriate fertilizer use.

Fertilizer Recommendations: With each identified disease, the system gives suggestions of the kind of **fertilizer required with a click-through to the buying link**. This feature improves the ways of management for crops because it provides modules to diagnose and treat the crops.

KEYWORDS: Convolutional Neural Networks (CNNs), Deep Learning, AI&ML, Plant identification, Plant Disease prediction, Fertilizer Recommendations, fertilizer with a click-through to the buying link

PROGRAMMING LANGUAGES & TOOLS: Python, JavaScript, HTML/CSS **Frameworks:** PyTorch, TensorFlow, Flask