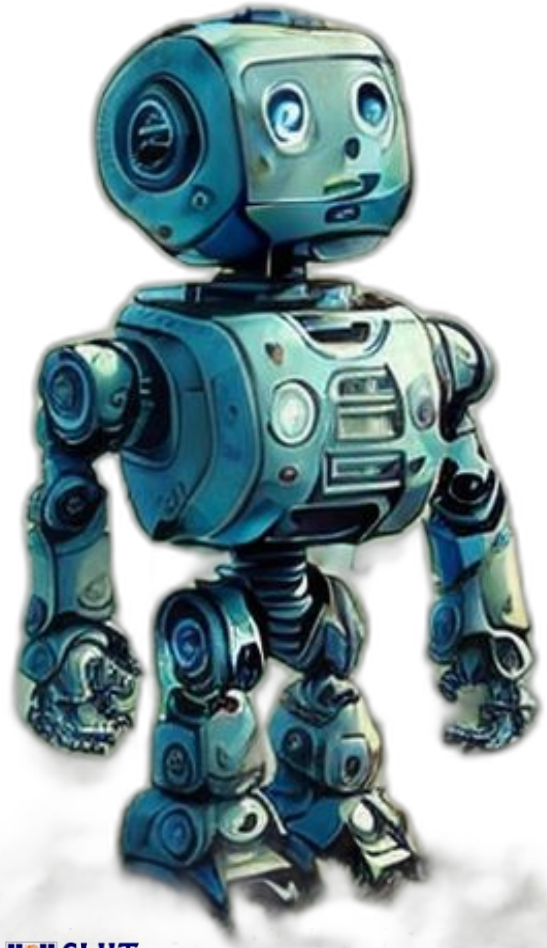
Advanced Plant Disease Analyzer: Automated Detection and Management System Quality Measurement - Vanilla

TMP-2023-24-105



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Introduction and Backgroud

- Welcome to our groundbreaking project aimed at revolutionizing the vanilla industry through the integration of cutting-edge technologies and innovative methodologies. Our mission is clear: to develop a smart vanilla plant disease analyzer, a mobile-based solution, and an export quality measurement system that will address the crucial challenges faced in vanilla cultivation.

- Vanilla farmers encounter various hurdles, including disease risks that can threaten their yields and livelihoods. Additionally, exporters require accurate quality assessment to meet stringent international standards and ensure a competitive edge in the market.

- To tackle these challenges head-on, we are harnessing the potential of scan or image-based methods, advanced algorithms, and Internet of Things (IoT) technologies. Our interdisciplinary team of experts is committed to creating a comprehensive and intelligent system that empowers vanilla farmers and exporters alike.

Research Gap

Research Question

What data sources and parameters are essential for personalized decision support in vanilla cultivation?

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How to integrate machine learning for dynamic cultivation advice based on real-time data?

What are preferred data visualization formats and user communication channels?

What are the impacts of the component on vanilla farming practices, yield, and sustainability?

Objectives

- The main objective of our research is to develop an integrated smart system for vanilla cultivation that leverages image recognition, mobile-based data analysis, IoT technologies, and advanced data analytics to enhance vanilla plant health, optimize cultivation practices, mitigate disease risks, and ensure export-quality vanilla products. By empowering farmers with real-time insights, personalized feedback, and innovative technologies, our research aims to revolutionize the vanilla industry, promoting sustainable cultivation, and supporting informed decision-making for successful export.

Sub Objectives

Overall System Diagram

Student Must add a professional photo to this cage

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COMPONENTS

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Research Gap

Research Question

Specific Objectives

Sub Objectives

Methodology

System Overview Diagram

Tools & Technologies

Requirements

Work Breakdown Structure

Gantt Chart

References

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References

Use IEEE referencing format