A Project Abstract

on

RECOGNIZING NUTRIENT DEFICINECY IN PADDY CROP USING IMAGE PROCESSING

Submitted in partial fulfillment of the requirements

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by

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ABSTRACT

In the economic landscape of India, agriculture stands as a pivotal sector encompassing both plant cultivation for food production and the management of domesticated animals. Nutrient management forms a cornerstone of agricultural practices, profoundly influencing crop growth and productivity. Just as with other crops, rice is susceptible to diseases, pests, and nutrient deficiencies, necessitating continuous advancements in agricultural techniques to bolster output.

In this context, a notable transformation has swept through agriculture, aiming to amplify yields. Focusing on rice, a vital food source, this study captures images of paddy plant leaves, subsequently subjecting them to Convolutional Neural Network (CNN) processing. By employing image processing methodologies, a model is constructed to identify various deficiencies present in the leaves. Notably, the proposed approach leverages color and textural characteristics to effectively detect and categorize inadequacies. The integration of CNN technology offers a potent avenue for promptly identifying nutrient insufficiencies within leaves. This proactive identification equips farmers with the information needed to undertake timely corrective measures. Ultimately, this research contributes to the evolution of agriculture by facilitating the detection and rectification of nutrient-related challenges, thereby fostering improved crop health and overall agricultural productivity.

Keywords

CNN, Susceptible, Fostering, Color and Texture, Deficiencies.

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