Mobile Application for Predicting Diseases with Providing Remedies on Guava Plant Leaves with The Help of Deep Learning Techniques and Cloud Computing

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Abstract: *Guava plants are vulnerable to various diseases that can significantly impact their growth and yield. Early detection and treatment of these diseases are critical to prevent their spread and ensure healthy plants. In this study, we propose a mobile application for disease prediction and remedies for guava plant leaves using deep learning techniques and cloud computing. The application takes an image of the guava plant leaves as input from the end-user, which is encoded into base64 and sent to the server. The image is decoded on the server, processed using our trained deep learning model, and the disease name and accuracy are sent back to the end-user. Based on the disease and accuracy, the mobile application provides remedies to the user to prevent the guava plant from this disease. Our experimental results show that the proposed system achieves an accuracy of around 95% in disease prediction on provided testing dataset. The proposed system has the potential to help farmers and growers detect diseases early, leading to improved plant health and higher yields.*

Keywords: Agriculture, Guava disease, Machine learning, Deep Learning, Environment, Mobile Application, CNN.

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