

ABSTRACT

The detection of plant leaf is very important factor to prevent serious outbreak. Automatic detection of plant disease is essential research topic. Most plant diseases are caused by fungi, bacteria, and viruses. Fungi are identified primarily from their morphology, with emphasis placed on their reproductive structures. Bacteria are considered more primitive than fungi and generally have simpler life cycles. With few exceptions, bacteria exist as single cells and increase in numbers by dividing into two cells during a process called binary fission. Viruses are extremely tiny particles consisting of protein and genetic material with no associated protein. The term disease is usually used only for the destruction of live plants. Human society needs to increase food production by an estimated 70% by 2050 to feed an expected population size that is predicted to be over 9 billion people. Currently, infectious diseases reduce the potential yield by an average of 40% with many farmers in the developing world experiencing yield losses as high as 100%. The widespread distribution of smartphones among crop growers around the world with an expected 5 billion smartphones by 2025 offers the potential of turning the smartphone into a valuable tool for diverse communities growing food. The proposed processing scheme uses machine learning and dynamic plants image model to predict disease related to the leaf. Using machine learning makes platform generic and useful. Adding and updating new diseases and datasets is easy if machine learning is use. Using cloud computing for storing retrieving and serving data from machine learning model is efficient choice and both technologies can be used to create system.

Keywords: reproductive, machine learning, processing, disease, cloud computing

DECLARATION

We the members of the project team, studying in the VIII semester of Computer Science & Engineering, Jain College of Engineering and Research, hereby declare that the entire project entitled “**Plant Disease Detection Using Machine Learning**” has been carried out by us independently under the guidance of **Prof. Sapana Yakkundi**, Department of Computer Science & Engineering, Jain College of Engineering and Research. This project work is submitted to the **Visvesvaraya Technological University**, Belagavi, in partial fulfillment of the requirement for the award of the degree of **Bachelor of Engineering in Computer Science & Engineering**.

This dissertation has not been submitted previously for the award of any other degree or diploma to any other institution or university.

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