RV College of Engineering® , Bengaluru – 59
Department of Computer Science and Engineering
Database Design Self study(18CS53)

Title: Plant diagnosis system using CNN	
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1. Introduction

Proper diagnosis of plant problems is a key factor in plant health management. As urban forester Alan Siewert quips: "Treatment without diagnosis, as in medicine, is malpractice." Despite this, diagnostics is often not given adequate attention.
There are three challenges to consider when embarking on plant problem diagnostics:

- Some plant problems are very obvious, while other problems are very obscure.
- Some plant problems will not be diagnosed with your first effort. In fact, some plant problems may never be fully diagnosed.
- Clients usually want an immediate and clear cut answer which produces great pressure to provide a quick-draw, clear-cut diagnosis.

This smart system uses neural network for diagnosing plant diseases

2. Existing System

In the existing system, the farmer himself has to diagnose the plant disease and give treatment. The farmer may or may not have the required knowledge to identify the disease properly so that it gets the treatment at the right time. Also he might have to meet a field expert in person which might be very difficult for farmers staying in rural areas as they might have to travel miles to consult a field expert.

3. Proposed System

In the proposed system, the farmer can register and login to the system using his username and password.
Once logged in, he can upload pictures of the leaves of his plant. The trained convolutional neural network model diagnoses the disease of the plant if present and suggests a predefined set of remedies for the plant. If the farmer wants more information about the treatment of the plant, he can consult a field expert within the system, without actually meeting him.

The field expert can also register and login to the system using his username and password. When the field expert receives requests for more information about the disease, he can provide

suggestions for the same.

The farmer can give feedback for the service provided by the field expert.

4. Societal Concern

This system helps farmers to get better yield from the farm with minimum cost. As the system has GUI, the farmer can easily use the system without any expertise. The farmers need not wait for a field expert to detect a disease as he can do it himself by using this web app. Even if a field expert is required, he need not travel miles together to meet one. He can instantly communicate with the field expert using this system.
The system uses a high accuracy CNN model and thus it detects diseases with least errors.