Project objective

Date	22 August 2022
Team ID	PNT2022TMID45437
Project Name	Project – Fertilizers Recommendation System for Disease Prediction

PROJECT OBJECTIVE:

Agriculture is the main aspect of country development. Many people lead their life from agriculture field, which gives fully related to agricultural products. Plant disease, especially on leaves, is one of the major factors of reductions in both quality and quantity of the food crops. In agricultural aspects, if the plant is affected by leaf disease, then it reduces the growth of the agricultural level. Finding the leaf disease is an important role of agriculture preservation. After pre-processing using a median filter, segmentation is done by Guided Active Contour method and finally, the leaf disease is identified by using Support Vector Machine. The disease-based similarity measure is used for fertilizer recommendation.

Agriculture is the most important sector in today's life. Most of the plants are affected by a wide variety of bacterial and fungal diseases. Diseases on plant placed a major constraint on the production and major threat to food security. Hence, early and accurate identification of plant diseases are essential to ensure high quantity and best quality. In recent years, the number of diseases on plants and degree of harm caused has increased due to the variation in pathogen varieties, changes in cultivation methods and inadequate plant protection techniques.

An automated system is introduced to identify different diseases on plants by checking the symptoms shown on the leaves of the plant. Deep learning techniques are used to identify the diseases and suggest the precautions that can be taken for those diseases.

By the end of this project we'll understand:

- Preprocess the images.
- Applying the CNN algorithm to the dataset.
- How deep neural networks detect the disease.
- We will be able to know how to find the accuracy of the model.
- We will be able to build web applications using the Flask framework.