

FERTILIZERS RECOMMENDATION SYSTEM FOR DISEASE PREDICTION

PROBLEM STATEMENT

Agriculture is the most important sector in today's life. It is the main aspect for the economic development of a country. Agriculture is the heart and life of most Indians. But in recent days, the field was going down due to various natural calamities. Most plants are affected by a wide variety of bacterial and fungal diseases.

Diseases on plants placed a major constraint on the production and a major threat to food security. Plant disease, especially on leaves, is one of the major factors that reduce the yield in both quality and quantity of the food crops. Finding the leaf disease is an important role to preserve agriculture. Hence, early and accurate identification of plant diseases is essential to ensure high quantity and best quality.

In recent years, the number of diseases on plants and the degree of harm caused has increased due to the variation in pathogen varieties, changes in cultivation methods, and inadequate plant protection techniques. Smart analysis and Comprehensive prediction models in agriculture helps the farmer to yield the right crop at the right time.

In our proposed project, we present an automated system to identify different diseases on plants by checking the symptoms shown on the leaves of the plant. Image of a leaf of the plant is fed into the system using which the diseases on the plant are identified. Deep learning techniques are used to identify the diseases and suggest the precautions that can be taken for those diseases.

The main benefits of the proposed system are as follows:

- Yield right crop at the right time,
- Balancing the crop production,
- control plant disease,
- Economic growth, and
- planning to reduce the crop scarcity.