

Project Design Phase-I

Proposed Solution

Date	02 October 2022
Team ID	PNT2022TMID10715
Project Name	Fertilizers recommendation system for disease prediction
Maximum Marks	2 Marks

Proposed Solution:

Project team shall fill the following information in proposed solution.

S.No	Parameter	Description
1.	Problem Statement (Problem to be solved)	Plant diseases significantly reduced crop productivity and posed a serious danger to farmers' livelihoods and food security. Thus, to ensure that crops are produced in large quantities and at the highest possible standards, it is crucial to identify plant illnesses early and accurately and to use the appropriate nutrients.
2.	Idea / Solution description	As part of our project, we want to create a web application that will help farmers foresee crop infestations. New technologies like machine learning and deep learning algorithms can forecast it. Along with forecasting, we also intended to advise on the appropriate pesticide to use and the recommended dosage in order to save the crop from degeneration. The CNN algorithm is then used to form a neural network for predicting crop disease after the train and test picture datasets have been preprocessed. To provide the farmers with an interface, a web application built with Flask is developed.
3.	Novelty / Uniqueness	The software advises both organic and inorganic fertilisers, and farmers can place online orders for the fertilisers that are readily accessible.
4.	Social Impact / Customer Satisfaction	The objective of this study is to more accurately predict crop disease early on and stop additional crop loss. In order to apply fertilisers more effectively, the location of the disease's affected area is also discovered. so that Farmers might exercise caution and preventive measures.

5.	Business Model (Revenue Model)	helps farmers produce food goods in a good way and cuts down on production losses earlier. Crop yield, crop efficiency, and agricultural product output will all rise with the suggested approach. Agriculture output will expand significantly, and profit will be increased.
6.	Scalability of the Solution	The proposed structure for precision agriculture enables the application of a flexible methodology that may be modified for various types of crops. Based on the taught data, the software will anticipate an accurate answer.