

IDEATION PHASE

LITERATURE SURVEY

DATE	6 October 2022
TEAM ID	PNT2022TMID00322
PROJECT NAME	Fertilizer Recommendation System for Plant Disease Prediction

Literature Survey:

S. No	TITLE & AUTHORS	YEAR	TECHNIQUE	PROPOSED SYSTEM
1	Plant Leaf Detection and Disease Recognition using Deep Learning – Sammy V. Militante; Bobby D. Gerardo; Nanette V. Dionisio	2019	Deep Learning with Neural Networks	Deep learning is the advanced method of machine learning that uses neural networks that work like the human brain. The methodology in the study involves three key stages: acquisition of data, pre-processing of data and image classification. The study utilized dataset from Plant village dataset that contains plant varieties of apple, corn, grapes, potato, sugarcane, and tomato.
2	Design and Implementation of Fertilizer Recommendation System for Farmers – Dr.S.Usha Kiruthika, Dr.S.Kanaga Suba Raja, S.R. Ronak, S.Rengarajan, P. Ravindran	2020	IoT, Machine Learning	The proposed system comprises of four stages: soil analysis, data pre-processing, data analysis and Recommendation. The soil sample is analyzed using an IoT based device utilizing NPK sensor with two electrodes are set to calculate collect the NPK ratio of the soil nutrient and for pre-processing, the data gathered from sensors are figured into correct dataset and machine learning algorithm is utilized to recognize the reasonable fertilizer.

3	<p>IoT Enabled Efficient Detection and Classification of Plant Diseases for Agricultural Applications-</p> <p>R. Deepika Devi, S. Aasha Nandhini, R. Hemalatha, and S. Radha</p>	2019	IoT, Wireless Sensor Network, RFC, Raspberry Pi	<p>The proposed system utilizes image processing and IoT to process the images of the plants and extract its texture features. From the GLCM features, classification is done using Random Forest Classification (RFC) technique at the monitoring site and analyzed by the agriculture experts to provide solutions. The environmental parameters are measured using temperature/ humidity sensor and soil moisture sensor that are interfaced with Raspberry Pi3.</p>
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References:

<https://ieeexplore.ieee.org/document/8942686>

https://www.researchgate.net/publication/345904482_Design_and_Implementation_of_Fertilizer_Recommendation_System_for_Farmers

<https://ieeexplore.ieee.org/document/9032727>