

V.S.B. ENGINEERING COLLEGE

Electronics And Communication Engineering

IBM NALAIYA THIRAN

TITTLE : Fertilizers Recommendation System
For Disease Prediction

DOMAIN NAME : Artificial Intelligence

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ABSTRACT : 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.

INTRODUCTION : Detection and recognition of plant diseases using machine learning are very efficient in providing symptoms of identifying diseases at its earliest. Plant pathologists can analyze the digital images using digital image processing for diagnosis of plant diseases. Application of computer vision and image processing strategies simply assist farmers in all of the regions of agriculture. Generally, the plant diseases are caused by the abnormal physiological functionalities of plants. Therefore, the characteristic symptoms are generated based on the differentiation between normal physiological functionalities and abnormal physiological functionalities of the plants. Mostly, the plant leaf diseases are caused by Pathogens which are positioned on the stems of the plants. These different symptoms and diseases of leaves are predicted by different methods in image processing. These different

methods include different fundamental processes like segmentation, feature extraction and classification and so on. Mostly, the prediction and diagnosis of leaf diseases are depending on the segmentation such as segmenting the healthy tissues from diseased tissues of leaves

LITERATURE SURVEY:

[1] shows a case study related to wireless sensor networks for crop monitoring, growth and measurement of meteorological factors. The paper suggests farmers for application of specific pesticides and insecticides in stressful conditions. There was no focus on soil nutrients, the level of soil fertility and monitoring the crop growth or suggest the crop for the next season in the above proposed paper. The solution to the issues in agriculture trends is proposed in this paper. The study suggests that farmers need to increase the fertility of soil and measure all parameters which are required to grow a crop in healthy condition.

[2] data mining algorithms are used on agriculture data. The main criterion for this categorization is that if the pH value is greater than 8.5, the soil is unsuitable for crop cultivation; otherwise, it is. To overcome this problem the proposed system will give necessary suggestion to increase or decrease the pH value of soil.

[3] the proposed system is related to increase net yield rate of the crop, based on the parameter related to the soil and atmosphere. The model gives the Crop prediction which can be carried out by using the "Bayesian algorithm". Data mining is used to extract the large amount of data from the data set and analyses those data to predict the crop yield and suggest the crop. The limitation of this includes atmospheric prediction is not accurate.

REFERENCES:

[1] Luca Bencini, Davide Di Palma, Giovanni Collodi, G. Manes and Antonio Manes, "Agricultural monitoring based on wireless sensor network technology: Real long life deployments for physiology and pathogens control.". Third International Conference on Sensor Technologies and Applications. IEEE, 2009.

[2] Journal Article Mrs. N. Hemageetha, Dr. G.M. Nasira, "Analysis of soil condition based on pH value using Classification Technique", IOSRJCE, Volume 18, Issue 6, Nov-Dec 2016.

<https://www.iosrjournals.org/iosrjce/papers/Vol18-issue6/Version3/I1806035054.pdf>

[3] International Journal of Computer Science and Informatics. Jay Gholap, Anurag Ingole, Jayesh Gohil, Shailesh Gargade and Vahida Attar, "Soil Data Analysis Using Classification Techniques and Soil Attribute Prediction", IJCSI, Vol. 9, Issue 3, No 3, ISSN: 1694-0814, May 2012.

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