V.S.B.ENGINEERING COLLEGE, KARUR Department of Computer Science and Engineering

IBM NALAIYA THIRAN LITERATURE

SURVEY

TITLE : 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

LITEREATURE SURVEY :

The Author describes [1] The objective of this study is to analyze the environmental parameters like rainfall, temperature, humidity, and pH value. Developing better techniques to predict crop productivity in different climatic conditions can assist farmer, and other stakeholders in better decision-making regarding crop production and soil management. The system focuses on the data obtained from repository, weather department and by applying machine

algorithm: Decision Tree Classifier, a prediction of most suitable crops that can be cultivated. The work purpose is to help farmers based on the constraints to predict the most suitable crop and also help in increasing the productivity. The Author describes [2] Yield prediction is very popular among farmers these days, which particularly contributes to the proper selection of crops for sowing. This makes the problem of predicting the yielding of crops an interesting challenge. Earlier yield prediction was performed by considering the farmer's experience on a particular field and crop. This work presents a system, which uses data mining techniques in order to predict the category of the analyzed soil datasets. The category, thus predicted will indicate the yielding of crops. The problem of predicting the crop yield is formalized as a classification rule, where Naive Bayes and K-Nearest Neighbor methods are used. The Author describes [3] Machine learning is an emerging research field in crop yield analysis. Yield prediction is a very important issue in agriculture. Any farmer is interested in knowing how much yield he is about to expect. In the past, yield prediction was performed by considering farmer's experience on particular field and crop. The yield prediction is a major issue that remains to be solved based on available data. Machine learning techniques are the better choice for this purpose. Different Machine learning techniques are used and evaluated in agriculture for estimating the future year's crop production. This paper proposes and implements a system to predict crop yield from previous data. This is achieved by applying machine learning algorithms like Support Vector Machine and Random Forest on agriculture data and recommends fertilizer suitable for every particular crop. The paper focuses on creation of a prediction model which may be used for future prediction of crop yield. It presents a brief analysis of crop yield prediction using machine learning techniques. The Author describes [4] Looking at the current situation faced by farmers in Maharashtra, they have observed that there is an increase in suicide rate over the years. The reasons behind this includes weather conditions, debt, family issues and frequent change in Indian government norms. Sometimes farmers are not aware about the crop which suits their soil quality, soil nutrients and soil composition. The work proposes to help farmers check the soil quality depending on the analysis done based on data mining approach. Thus the system focuses on checking the soil quality to predict the crop suitable for cultivation according to their soil type and maximize the crop yield with recommending appropriate fertilizer.

REFERENCES :

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[3] Ruchita T, Shreya B, Prasanna D, and Anagha C (2017). Crop Yield Prediction using Big Data Analytics, Volume 6, Issue 11, IJCMS.

[4] Rushika G., Juilee K, Pooja M, Sachee N, and Priya R.L.(2018). Prediction of Crop Yield using Machine Learning, Issue 02 IRJET (pg 2337-2339).