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

LEADER NAME : Ashok E

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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 : 1) Visualizing and Understanding Convolutional Networks Matthew D. Zeiler, R. Fergus Computer Science ECCV 2014.

2) Leaf Classification Using Shape, Color, and Texture Features Abd. Kadir, L. Nugroho, A. Susanto, P. Santosa Computer Science ArXiv 2014.

3) Deep-plant: Plant identification with convolutional neural networks Sue Han Lee, Chee Seng Chan, P. Wilkin, Paolo Remagnino Environmental Science 2015 IEEE International Conference on Image Processing (ICIP) 2015.

4) Using Deep Learning for Image-Based Plant Disease Detection S. Mohanty, David P. Hughes, M. Salathé Computer Science Front. Plant Sci. 2016.

5) Deep Neural Networks Based Recognition of Plant Diseases by Leaf Image Classification S. Sladojevic, Marko Arsenovic, Andraš Anderla, D. Culibrk, Darko Stefanović Computer Science Comput. Intell. Neurosci. 2016.