FERTILIZERS RECOMMENDATION SYSTEM FOR DISEASE PREDICTION

LITRATURE SURVEY

1.Fertilizers Recommendation System For DiseasePrediction In Tree Leave

Authors:R. Neela, P. Nithya

A digital camera or similar devices are used to take images ofdifferent types, and then those are used to identify the affectedarea in leaves. Then different types of image-processingtechniques are applied to them, the process those images, toget different and useful features needed for the purpose ofanalyzing later-Plant leaf disease identification is especiallyneeded to predict both the quality and quantity of theFirst segmentation step primarily based on a mild polygonalleaf model is first achieved and later used to guide theevolution of an energetic contour. Combining global shapedescriptors given by the polygonal model with local curvaturebased features, the leaves are then classified overleafdatasets. In this research work introduce a method designedto deal with the obstacles raised by such complex images, forsimple and plant leaves. A first segmentation step based ongraph-cut approach is first performed and later used to guidethe evolution of leaf boundaries, and implement classificationalgorithm to classify the diseases and recommend thefertilizers to affected leaves

2.Fertilizer recommendation for Agriculture International Journal of Business, Management and Social Research

Authors: Jakia Sultana, M. N. A. Siddique, Md. Rishad Abdullah

fertilizer recommendation for cropping pattern(s) is provided at farmer's level. While BLGG AgroXpertus is an international company located in Wageningen, the Netherlands, which provides soil and plant based fertilization recommendations on the basis of soil analysis, but the recommendation mainlybased on information originated from European research. Bangladesh has agricultural potentials and problems related to its soil and land resources such as alteration of soil nutrient status, soil fertility decline, soil acidity, soil salinity, phosphorus fixation in the piedmont areas, decline of soil organic matter etc. But the condition of Europe,

as well as the Netherlands, is not always similar with Bangladesh. For instance, a higher sulphur (S) deposition was reported in the Netherlands (05 kg/ha) whereas in Bangladesh, it was negligible. Mineralization rate of organic matter was much higher in Bangladesh compare to the Netherlands. In addition, phosphorus (P) status was almost high in different parts of the Netherlands and it was very low to low in Bangladesh except some piedmont areas. Therefore, it is a prerequisite to adjust and optimize the fertilizer recommendation to the Bangladesh's situation as a better applicability of soil report of this company in Bangladesh as the supplement of existing fertilizer recommendation system. As the mineralization high in Bangladesh, the company can recommend applying the whole amount of organic matter by dividing into 2-3 applications in a year.

3.Disease Prediction using Machine Learning

Authors: KedarPingale, SushantSurwase, Vaibhav Kulkarni, SaurabhSarage

This system is used to predict most of the chronicdiseases. It accepts the structured and textual type of dataas input to the machine learning model. This system isused by end users. System will predict disease on thebasis of symptoms. This system uses Machine LearningTechnology. For predicting diseases Naïve Bayesalgorithm, for clustering KNN algorithm, final output willbe in the form of 0 or 1 for which Logistic tree is used.Machine learning is programming icomputers to optimizea performance using example data or past data. Machinelearning is study of computer i systems that learn fromdata and experience .Machine learning i algorithm has twopasses: Training, Testing .Prediction of a disease by usingpatient's symptoms and history machine learningtechnology is struggling from past decades. MachineLearning technology gives a good platform in medicalfield, so that a healthcare issues can be solved efficiently

4.Plant Leaf Disease Detection using Machine Learning

Authors: Amrita S. Tulshan; Nataasha Rau

Every other field has got some benefit from new technologies as compared to the agricultural field. According to past studies, 42% of agricultural production is in loss and that too only because of the increasing rate of loss due to plant leaf diseases. To overcome this major issue, this plant leaf disease detection technique can be applied to detect a disease from the input images. This process involved steps like image pre-processing, image segmentation, feature extraction. Furthur K Nearest Neighbor (KNN) classification is applied on the outcome

of these three stages. Proposed implementation has shown 98.56% of accuracy in predicting plant leaf diseases. It also presents other information regarding a plant leaf disease that is Affected Area, Disease Name, Total Accuracy, Sensitivity and Elapsed Time.

5.Plant Disease Detection Using Machine Learning

Modern approaches such as machine learning and deep learning algorithm has been employed to increase the recognition rate and the accuracy of the results. Various researches have taken place under the field of machine learning for plant disease detection and diagnosis, such traditional machine learning approach being random forest, artificial neural network, support vector machine(SVM), fuzzy logic, K-means method, Convolutional neural networks etc.…Random forests are as a whole, learning method for classification, regression and other tasks that operate by constructing a forest of the decision trees during the training time. Unlike decision trees, Random forets overcome the disadvantage of over fitting of their training data set and it handles both numeric and categorical data. The histogram of oriented gradients (HOG) is an element descriptor utilized as a part of PC vision and image processing for the sake of object detection. Here we are making utilization of three component descriptors: 1. Hu moments 2. Haralick texture 3. Color Histogram Hu moments is basically used to extract the shape of the leaves. Haralick texture is used to get the texture of the leaves and color Histogram is used to represent the distribution of the colors in an image