

LITRATURE SURVEY

1.Fertilizers Recommendation System For Disease Prediction In Tree Leave

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A digital camera or similar devices are used to take images of different types, and then those are used to identify the affected area in leaves. Then different types of image-processing techniques are applied to them, the process those images, to get different and useful features needed for the purpose of analyzing later-Plant leaf disease identification is especially needed to predict both the quality and quantity of the First segmentation step primarily based on a mild polygonal leaf model is first achieved and later used to guide the evolution of an energetic contour. Combining global shape descriptors given by the polygonal model with local curvaturebased features, the leaves are then classified overleaf datasets. In this research work introduce a method designed to deal with the obstacles raised by such complex images, for simple and plant leaves. A first segmentation step based on graph-cut approach is first performed and later used to guide the evolution of leaf boundaries, and implement classification algorithm to classify the diseases and recommend the fertilizers to affected leaves

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

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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

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This system is used to predict most of the chronic diseases. It accepts the structured and textual type of data as input to the machine learning model. This system is used by end users. System will predict disease on the basis of symptoms. This system uses Machine Learning Technology. For predicting diseases Naïve Bayes algorithm, for clustering KNN algorithm, final output will be in the form of 0 or 1 for which Logistic tree is used. Machine learning is programming computers to optimize a performance using example data or past data. Machine learning is study of computer systems that learn from data and experience. Machine learning algorithm has two passes: Training, Testing. Prediction of a disease by using patient's symptoms and history machine learning technology is struggling from past decades. Machine Learning technology gives a good platform in medical field, so that a healthcare issues can be solved efficiently

4. Plant Leaf Disease Detection using Machine Learning

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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. Further 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 forests 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