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Krushimitra –crop care and pesticides suggestions

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ABSTRACT

The Krushimitra –crop care and pesticides suggestions provides its users and get online information about, the crop, statistical details and new tendencies. The trends of the crops act so that these will be pretty important to the users who access these via the internet. The main features of the Krushimitra – crop care and pesticides suggestions includes information retrieval facilities for users from anywhere in the form of obtaining about fertilizer, crop diseases, suitable soil concentration for the corresponding crops and etc

I. INTRODUCTION

The Krushimitra –crop care and pesticides suggestions Software is a comprehensive solution for crop care and tracking all crop planning. With it . It tracks all the information of treatments, growth of plant etc. We decided to carry out this project after seeing the difficulties faced by the farmers in finding the disease on the crop. The concept of agriculture without chemical fertilizers and pesticides is not easily accepted by the farmers. Be it organic farming or natural farming, Many misconceptions about the use of this method have already spread. Farmers trapped in the yoke of traditional farming were considered difficult to get out of. However, in recent times, awareness among farmers has been on the rise. Farmers have started paying attention to agricultural reforms. Biodynamic farming is an extension of organic farming. We have created this Krushimitra-Crop Care and pesticide suggestions project to help farmers. Diseases on the crop and their information and what measures should be taken against them.

The use of chemical fertilizers and pesticides has led to poor soil health. The microbes needed for crops are being destroyed. Productivity is also being affected. Does chemical fertilizers satisfy crop hunger? What are the simplest pest control measures? Many such questions fall on the farmers. Assuming that there will be economic loss, spraying of poisonous drug destroys friendly insects, friendly fungi in large scale and disturbs the balance of nature.

Unfortunately, only a limited portion of the earth‘s surface is suitable for agriculture uses due to various limitations, like temperature, climate, topography, and soil quality, and even most of the suitable areas are not homogenous. The accurately detection and classification of the plant disease is very important for the successful cultivation of crop and this can be done using image processing. This paper discussed various techniques to segment the disease part of the plant. This paper also discussed some Feature extraction and classification techniques to extract the features of infected leaf and the classification of plant diseases.

II. LITURATURE SURVEY/BACKGROUND

In this section describes various approaches for detecting the disease in plant leaf using image processing technique. Identification of the plant diseases is the key to preventing the losses in the yield and quantity of the agricultural product. It requires tremendous amount of work, expertise in the plant diseases, and also require the excessive processing time. Hence, image processing is used for the detection of plant diseases. Disease detection involves the steps like image acquisition, image pre-processing, image segmentation, feature extraction and classification. This paper discussed the methods used for the detection of plant diseases using their leaves images. This paper discussed various techniques to segment the disease part of the plant. This paper also discussed some Feature extraction and classification techniques to extract the features of infected leaf and the classification of plant diseases. Labin-a-Box, a soil testing tool kit developed by AgroCares, is considered a complete laboratory in itself based on its offered services.- Pesticide use is a central practice in the agriculture to enhance the quantity of food produced for the fast population growth and for the prevention of vector borne diseases. Thus, the environmental effect of pesticides and the accumulation of pesticides in food chain are inevitable particularly in emerging [1]A large number of agricultural workers and farmers suffer from work accidents and diseases every year,[2] The pesticides used in farmland and crop productions are varied from dangerous complexes. The accurately detection and classification of the plant disease is very important for the successful cultivation of crop and this can be done using image processing. This paper discussed various techniques to segment the disease part of the plant. This paper also discussed some Feature extraction and classification techniques to extract the features of infected leaf and the classification of plant diseases. The use of ANN methods for classification of disease in plants such as self- organizing feature map, back propagation algorithm, SVMs etc. can be efficiently used. From these methods, we can accurately identify and classify various plant diseases using image processing technique. [3]

The most significant challenge faced during the work was capturing the quality images with maximum detail of the leaf color. It is very typical task to get the image with all the details within a process able memory. Such images are formed a through high resolution and thus are of 6-10MB of size. This was handled by using a Nikon made D5200 camera which served the task very well. Second challenge faced was to get rid of illumination conditions as from the start to the end of paddy crop season, illumination varies a lot even when the image acquiring time is fixed. However the solution to this is variable user defined the holding and making necessary adjustments to the shades of LCC. [4]

III. PROPOSED WORK/SYSTEM

By implementing the latest Krushimitra-Crop care and pesticides suggestions technologies in agriculture practices, every aspect of traditional farming methods can be fundamentally changed. Krushimitra-Crop Care and Pesticides Suggestion can help solve many traditional farming problems by detecting diseases on agricultural crops and suggesting what the farmer should do about them. Krushimitra-Crop care pesticide suggestion can help to improve the solutions of many traditional farming issues, Such as pesticides, crop progress, crop diseases, accurate weather forecasts for crops, pest control suggests to the farmer.

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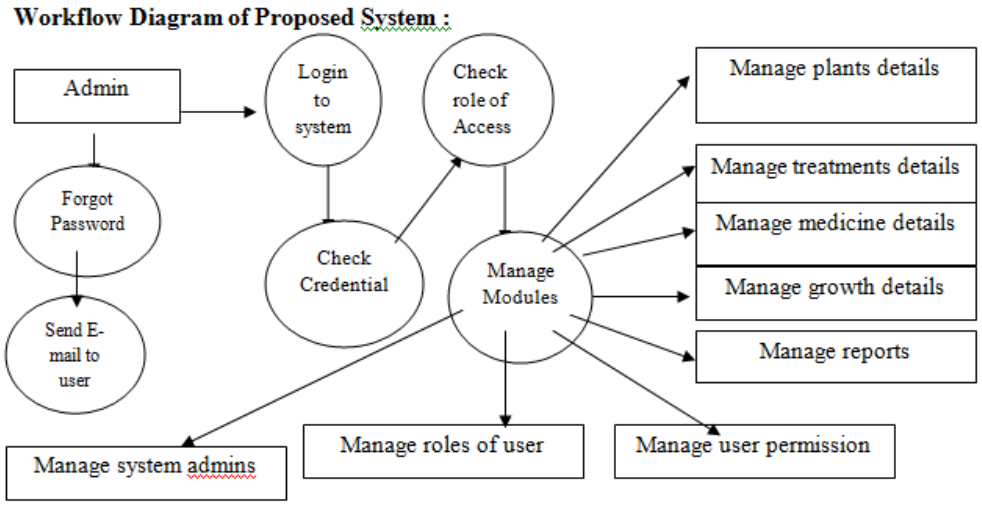
Workflow Diagram of Proposed System :



Crop Image Capturing And Mapping

Crop disease is serious and sampling is the first step in the investigation to obtain field-specific information, which is then used to make various critical decisions at different stages. The main objective of crop analysis is to determine the nutritional status of the crop so that measures can be taken. Avoid its decline. These systems allow monitoring of crop properties, such as crop diseases, crop progression and pesticides, to help reduce them

Crop Disease And Pest Information

- To show What will be the favorable climate for the crop, what will be the soil, what crop will be best to cultivate in which season, Krishimitra - Crop care and pesticide Suggestions help the farmer can see the information.
- These estimates help the farmer to make plans and decisions in the near future. Furthermore, analyzing product quality and its maturity is another important factor that helps in getting a good crop. This maintenance involves different stages of development and the color, size, etc. of the crop
- Role of Krushimitra-crop care and pesticide suggestions cope these limitation and other issues like resources shortage and their precise use, crop pesticides, climate changes, environmental pollution, and urbanization.

Crop Monitoring

Crop monitoring is a system used to analyze various aspects related to agricultural yields, such as crop conditions, and their effects on crops. Record crop yields help to accurately assess crop yields and what to do next.

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Image Processing

Image processing techniques have proven to be an effective machine vision system for the agricultural sector. Processing images using different spectrum imaging techniques such as infrared, hyper spectral imaging will help diagnose the disease on the crop and suggest solutions.

Crop Disease Detection

In this phase, images of crop leaves with desired resolution and size are collected using digital media like cameras, mobile phones etc. Images can also be taken from the web. And processing the image informs the farmer via SMS or phone about the disease and crop conditions.

Crop Progress Detection

In this phase, images of crop with desired resolution and size are collected using media like camera, mobile phone etc. And processing that image informs the farmer via SMS or phone about the condition of the crop.

Cloud Computing

Accurate farming is demonstrating its potential and benefits by improving agricultural operations through better data-based decision making. However, to continue this success, accurate farming requires not only the best technology and tools to process data efficiently, but also at reasonable costs so that the data obtained can be used to make field decisions efficiently. For this purpose, farmers can use cloud services to obtain information from predictive analytics organizations so that they can select the appropriate product available according to their specific needs. Cloud computing gives farmers the opportunity to use a knowledge-based repository with a wealth of information and experience related to farming methods as well as the equipment options available in the market with the required details.

IV. RESULT AND DISCUSSIONS

In order to meet the growing food demand of the growing global population against the backdrop of declining crops, we need to focus on clever, better and more efficient cropping methods. The development of new methods of improving crop production and handling, can be easily seen at present:, Innovative young people are embracing agriculture as a business, Using cameras, mobile phones, etc., images of crop with desired resolution and size are collected and processed to provide the farmer with information about the condition of the crop via sms or phone..

V. CONCLUSION

To make agriculture smarter and more efficient to meet future expectations . To this end, crop monitoring is a system used to analyze various aspects related to agricultural yields, Such as crop conditions, and their effects

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on the crop. Record crop yields help to accurately assess crop yields and what to do next. Cloud-computing, communication technology is discussed in depth. Furthermore, it provides insights into recent research efforts. In addition, the main objective of various crop analysis is to determine the nutritional status of the crop so that measures can be taken and information regarding the farming platform is provided.

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