IMPLEMENTATION OF SYSTEM FOR REAL TIME IDENTIFICATION OF CROPS DISEASES USING MACHINE LEARNING.

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Abstract : Economy and wealth of a country depends on agriculture production. The problem observed in various region of farming is the crop diseases occurring and making the crop production at low level. To avoid this researchers have been developed the different techniques to detect early crop diseases and to apply the preventive measures for it. In this following techniques of crop detection method using image processing. The image processing is being observed as a very important tool for it. By using convolution neural network we will be identifying different crop diseases.

KeyWords – **MACHINE LEARNING ,CONVOLUTION NEURAL NETWORK (CNN).**

I.   INTRODUCTION

Arrival of crop disease are observed at very first stage from its leafs. The infected plants shows some colored infected spots on leaf generated due to different types of infection. Manual sorting observations of the plant leaf with manual conclusion of crop disease is a difficult one, also there may chance of wrong conclusion with wrong preventive action.

Image processing has shown its application with more relevant and correct output for achieving this early crop disease detection. The leaf image can be processed in different extent to observe the various spots and comparing it with the stored data sets to provide the disease occurred on crop.

II.   PROPOSED SYSTEM

The purpose to making this system or software to help the farmers.
Following are the objectives and goal of this project:
1. Creating a system where we can analyze multiple crops efficiently.
2. Making the system more effective and user friendly.
3. Providing the best solution depend on the result(Remedies).
4. Updating the system as per required.
5. To provide the useful information and update related to the agriculture.

III.   OBJECTIVES

This project intends to reach the farmers of india to detect the crops dieases as soon as possible. The system will be more effective, efficientand user friendly by using better GUI, additional features and advanced new technology. No open source is currently available in India.Most similar source are research oriented and not for regular users. Also, they are not deployed and tested in a live environment.

IV.   LITERATURE SURVEY

We have classified diseases in four parts according to our database:
Here are some snapshots,

- Healthy:

- Unhealthy:
  1. Viral　　　　　　　　　　　　2. Lateblight

  3. Bacterial Spot

and many more diseases.

After input of the database into the algorithm (CNN) the neural network gives the following output
For healthy leaves:

For Viral output is obtained

For Lateblight output is obtained

For Bacterial Spot output is obtained

V.　ADVANTAGES

1. Many types of crop are analyzed at one place easily. No need to use different systems for different crops to identify them.
2. The system will be more effective, efficient and user friendly by using better GUI, additional features.

3. This system proposed will be scalable and we can scale up this system as per requirement.
4. This system is adoptable to adopt new things as per new thing invent.
5. There is big future scope in this system and the system will be more powerful in future

VI.　CONCLUSION

This system will help to farmers to early identify the diseases and infected crops, which is very important in agriculture.It is a user friendly application with simple use interface so that farmer can access it easily. The image processing is an effective tool for crop disease recognition and hence have the huge future scope.

VII.　ACKNOWLEDGEMENT

VIII.　REFERENCES

1.Real Time Identification Of Crops, Weeds, Diseases, Pest Damage and Nutrient Deficiency   International Journal of Advanced Research in Education & Technology
(IJARET) Vol. 5, Issue 1 (Jan. - Mar. 2018)
2.Two Stage Classification Model for Crop Disease Prediction
IJCSMC, Vol. 4, Issue. 6, June 2015