



Senior Design Project

Plant Disease Detection Using Image Processing

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Summer, 2019

Declaration

This is to declare that no part of this report or the project has been previously submitted elsewhere for the fulfillment of any other degree or program. Proper acknowledgement has been provided for any material that has been taken from previously published sources in the bibliography section of this report.

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Approval

The Senior Design Project entitled “**Plant Disease Detection Using Image Processing**” by Sakif Obaid (ID#1320297042), Md. Sakib Iqbal (ID#1510423042) , Md Jahidul Islam (ID#1510301042) and Shamima Parvin(ID#1520321042) has been accepted as satisfactory and approved for partial fulfillment of the requirement of BS in CSE degree program on September, 2019.

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Acknowledgement

First of all, we would like to express our profound gratitude to our honorable course instructor, **Mr. Zunayeed Bin Zahir** , for his constant and meticulous supervision, valuable suggestions, his patience and encouragement to complete the thesis work.

We would also like to thank the ECE department of North South University for providing us with the opportunity to have an industrial level design experience as part of our curriculum for the undergraduate program.

Finally, we would like to thank our families and everybody who supported us and provided with guidance for the completion of this project.

Abstract

Agricultural productivity highly required on a global economy scale. This is the one of the reasons that disease detection in plants plays an important role in agriculture field, as having disease in plants are quite natural. Lack of care in this department will cause serious issues on plants for which respective product quality, quantity or productivity is affected. In this project, we have build an android application that can identify plant disease. Most of the plant have symptoms of any disease on its plant. Our application also has been developed based on dataset of plant leaf. This application will detect the disease on the plant and also suggest proper treatment for that disease. Various image processing and recognition technique has been used. Neural network has been introduced for getting satisfactory level of accuracy. Plant disease identification by visual way is more laborious task and at the same time, less accurate and can be done only in limited areas. Whereas if automatic detection technique is used it will take less effort, less time and become more accurate. In plants, some general diseases seen are brown and yellow spots, early and late scorch, and others are fungal, viral and bacterial diseases. Image processing is used for measuring affected area of disease and to determine the difference in the color of the affected area. Automatic detection of plant disease is beneficial as it reduces a huge task of monitoring in big farms of crops, can detect the symptoms of diseases at an early stage i.e. when they appear on plant leaves.