

## **ABSTRACT**

*Agricultural productivity is something on which economically highly depends. This is the one of the reasons that detection of disease on the plants plays a major role in agriculture field. The identification of disease on the plant is a very important key to prevent a heavy loss of yield and the quantity of agriculture product. The symptoms can be observed on the parts of the plant such as leaf, stems, lesion and fruits. The leaf shows the symptoms by changing the original color, showing the spots on it. The disease detection is done by manual observation and pathogen detection which can consume more time and may prove costly. The aim of the project is to identify and classify the disease accurately from the leaf images and provide the solution for it. The steps required in the process are pre-processing, training, identification and solution providing.*

*The proposed system helps in identification of plant disease and provides remedies that can be used as a defense mechanism against the disease. The database obtained from the Internet is properly segregated and the different plant species are identified and are renamed to form a proper database then obtain test-database which consists of various plant diseases that are used for checking the accuracy and confidence level of the project. Then using training data we will train our classifier and then output will be predicted with optimum accuracy.*