

REGION BASED IMAGE SEGMENTATION FOR PLANT LEAF

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Plant diseases have turned into a dilemma as it can cause significant reduction in both quality and quantity of agricultural products. The proposed system is a software solution for automatic detection and classification of plant leaf diseases. The developed processing scheme consists of four main steps, first a color transformation structure for the input RGB image is created and then the green pixels are masked and removed using specific threshold value followed by segmentation process, the texture statistics are computed for the useful segments, finally the extracted features are passed through the classifier. This paper presents an image enhancement method that uses piecewise linear transforms gray scale image clustering of the image and edge detection of original image. The proposed algorithm's efficiency can successfully detect and classify the examined diseases with an accuracy of 94%. The work is developed using MATLAB and tested on different images.

