Abstract

In this work we express technological strategies using mobile captured symptoms of cotton leaf spot images and classify the diseases using neural network. The system has been trained to achieve intelligent farming for rural area farmers, including early recognition of diseases in grows, selective fungicide application, etc. This research work proposes an automatic image preprocessing techniques. At first, the captured images are processed for improvement. Other edge detectors presented in earlier works can detect edges on different size objects. In this Research work, a homogeneity operator can take the difference of the center pixel and a pixel that is two or three pixels away. The major objective of this Research work is to use Homogeneity-based edge detector segmentation, which takes the result of any edge detector and divides it by the average value of the area. This work has been implemented in the real time software and produces best results.
Homogenous Segmentation based Edge Detection Techniques for Proficient Identification of the Cotton Leaf Spot Diseases


Metin Kaya, "Image Clustering and Compression Using an Annealed Fuzzy Hopfield Neural Network".


Jiazhi Pan, Young He, "Recognition of plants by leaves digital image and neural network"; IEEE proceedings on 2008 International Conference on Computer Science and Software Engineering.


Index Terms

Computer Science
Pattern Recognition

Keywords

Homogenous Edge Detection Image Segmentation Neural Network Cotton Leaves F Spot