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Patent Search

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Abstract:

Present invention is related to a computer implemented method for detection of plant disease using image processing. The objective of the present invention is to overcome the deficiencies and inadequacies in the prior art related to detection of plant disease using image processing. The invention is designed using parallel ANN. For Image Clustering algorithm is applied. The severity of the identified disease can be predicted in different stages like Healthy stage, early stage, Middle Stage and End Stage using model. This will help the farmers by supporting the diagnostic procedure and also to improve better cultivation in crop.

Complete Specification

Claims:1. A method for detection of plant disease of a plant, wherein the method comprising steps of :
Capturing image of the plant leaves of the plant by an image capturing device, wherein
Preprocessing of the captured image using an image processing module, wherein the image processing module used to preprocess the signal using image processing module
Performing the clustering of the pre-processed image with steps comprises:
Converting the preprocessed image from RGB Color Space to a CIELAB color space image,
Classify the Colors in 'a*b*' Space Using the K-Means Clustering, wherein the K-Means Clustering treats each object of the image as having a location in space partitions such that objects within each cluster are as close to each other as possible, and as far from objects in other clusters as possible,
Creating Images that Segment by Color using different pixel level;
Segmenting the Green Component in the plant image, wherein an artificial neural network (ANN) is used for segmentation; and
Performing the prediction of the disease by the training, validation and evaluation of parallel artificial neural network with training database, to detection of plant disease.

2. The method for detection of plant disease of the plant as claimed in claim 1, the images are preprocessed using a Gaussian filter and/or median filter.

3. The method for detection of plant disease of the plant as claimed in claim 1 the severity of the identified disease can be predicted in different stages like

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