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Abstract

Tomato production is a daunting task because of various attacks from different bacteria. The symptoms of infected tomato are usually changed in color, infected spots, special kind of specks, and hollow areas with concentric rings having different colors on the outer surface area. The main aim of this research work is to detect tomato diseases using segmentation algorithm. Algorithm development includes two main steps; preprocessing step like contrast enhancement and segmentation using k-means clustering. Tomato samples are collected from local market and data acquisition has been carried out for database preparation. There are six different types of tomato disease are focused in this work such as Anthracnose, Bacterial canker, Bacterial speck, Bacterial spot, Early blight and Late blight. The segmentation techniques based in pixel locality are applied to get the segmented tomato and infected part of the tomato. The experimental result shows that the segmentation of tomato disease using K-means clustering performs well in finding out different diseases accurately.

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Index Terms

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Keywords

Bruises, LDA, Bacterial speck, FFB, Canker, Centroids, Epidemics.