Detection of Healthy and Defected Diseased Leaf of Rice Crop using K-Means Clustering Technique

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Abstract

Rice covers about 69 percent of the cultivated area and is the major crop covering about 63 percent of total area under the food grains [1]. It is a staple food of almost entire population of Odisha; therefore state economy has directly affected the production of rice in the state [1]. The common disorder found in the rice crop and usually appears at the tillering and panicle initiation stage which shows on the leaves of rice crop [2]. The disorder is due to mineral deficiency and infection caused by the pest. The disorders are visualized by discoloration and dead spots on leaves. It may beneficial for detecting defected diseased leaf by the symptoms that found on the surface of leaves [3]. In this paper, a novel approach to identify defected diseased leaf by using K-Means clustering or 3-Means clustering method is proposed. The experimental outcomes demonstrate that the proposed method is an impressive technique for the detection of defected part present on the leaves of the rice crop.

References
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**Index Terms**

Computer Science  
Image Processing

**Keywords**

Defected leaf disease detection; K-Means clustering; rice crop; defected segmentation.