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A PLANT DISEASE DETECTION USING IMAGE PROCESSING OF LEAVES

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ABSTRACT

The significant task of image processing in the domain of plant disease is to detect the diseases in plants as the data utilized for input is complex in nature. If the diseases are not identified in the early stages, then may adversely affect the total yield, resulting in a decrease in the farmers' profits. To overcome this problem, many researchers have presented different state-of-the-art systems based on Deep Learning and Machine Learning approaches. The infected plants are diagnosed in diverse phases. For this purpose, various algorithms i.e SVM, GLCM and k-mean are available. K mean algorithm is used for colour segmentation and glcm is used for disease classification. Automatic plant disease using image processing technique is beneficial for the farmers as it reduces large human labours and can help to detected by symptoms at early stage. The prior works presented SVM (Support Vector Machine) algorithm in order to detect the disorder. Using machine learning approaches, the images of leaves or fruits are used as input data. This research work introduced a voting classification system for enhancing the diverse metrics such as accuracy, precision and recall in comparison with the earlier work. The proposed model achieved 96% accuracy.

KEYWORDS: *Plant Disease, GLCM, K-mean, SVM, Voting Classifier*