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**BONAFIDE CERTIFICATE**

Certified that this project report **“PADDY LEAF DISEASES DETECTION USING IMAGE PROCESSING”** is the bonafide work of **“FAISAL ASLAM (950519106004), MATHESH T (950519106015), MUTHUVEL M (950519106019), SURESH KUMAR C (950519106034)”** who carried out the project under my supervision.

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# INTERNAL EXAMINER EXTERNAL EXAMINER

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# ABSTRACT

Paddy leaf disease is a major issue that affects the quality and yield of rice crops.

In recent years, image processing techniques have been widely used to detect and diagnose paddy leaf diseases. In this paper, we propose an image processing-based approach for the detection of paddy leaf diseases. The proposed method consists of four main stages: image acquisition, pre-processing, feature extraction, and classification. The image acquisition stage involves capturing images of paddy leaves using a digital camera. The pre-processing stage includes various image enhancement techniques to improve the quality of the images. The feature extraction stage involves extracting relevant features from the pre-processed images. We use gray level features from the images. In the classification stage, we use support vector machine (SVM) as a classifier to identify the type of paddy leaf disease. The proposed method was tested on a dataset of 200 paddy leaf images, and the results were compared with two other commonly used methods. The proposed method achieved an overall accuracy of 95%, which was significantly better than the other two methods. The proposed method is fast, accurate, and can be used as a reliable tool for the early detection of paddy leaf diseases. The proposed method has the potential to help farmers in making informed decisions about crop management, which can lead to increased crop yields and improved food security.

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