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## An Improve Method for Plant Leaf Disease Detection and Classification using Deep Learning

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**Abstract:** In countries like India, whose important occupation is agriculture, face a huge loss when the crops get affected by any type of disease. These diseases attack the crops in various stages and can destroy the entire production. Since most diseases are transmitted from one crop to another there is an essential requirement to detect the type of disease in the early stage so that farmers can take the required action to "save the crops" and production. Early disease detection is one of the essential activities for enhancing agricultural productivity. Diseases spread very quickly in the parts of the leaves that affect the growth of the plants. Early detection is a challenging task as the symptoms are mild for accurate identification. This research paper presents an enhanced CNN based MCC-ECNN model with fine-tuned hyper-parameters and various batch sizes for accurate plant leaf disease classification.

Keywords: Image classification, Plant Disease Detection, image Segmentation, deep learning, CNN

