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Plant Disease Detection with Image Processing
Using
Convolutional neural network (CNN)

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Abstract

Identification of Tea leaf diseases have been known as a tedious and difficult task in the Sri Lanka Tea cultivation industry. Tea leaf diseases often can only be identified by professionals and in the Sri Lankan industry, such professionals are scarce and expensive causing an additional cost to the estate and its owners a burden to employ such professionals.

As a solution to this problem, the research intends to present with an application which uses Convolutional neural network (CNN) capabilities with the use of DenseNet architecture in order to identify such diseases proactively. By this application, estate workers would be able to capture images of the tea leaves which would then be further analyzed by the application and provide an output with regards to the presence of a disease. Identification of such diseases early in the lifecycle would help the estate owners to prevent destroying the cultivation due to diseases.

Key Words - Convolutional neural network, CNN, Image Processing, DenseNet, Deep Learning,