

ABSTRACT

Oryza Sativa or commonly known as rice is a type of grain that is the third in Indonesia as a staple food after wheat and corn. As the population increases, so will the amount of rice consumption. However, farmers experience crop failure due to pest and disease attacks that are usually located on the leaves. Therefore, in the era of technological advances as it is today can use digital images for classification, one way for classification is to implement the Convolutional Neural Network (CNN) method with camera media to get an image of disease on the leaves of rice plants. The dataset in this study is divided into four classes, namely, collar blast, healthy rice, leaf blight and tungro. The total dataset is 800 images which are divided into 560 training data and 240 testing data. The testing model uses epoch 25, 50, and 100. Based on the test results, the accuracy increases with the addition of the number of epochs. The final test results showed the accuracy at the epoch value that at epoch 25, the accuracy reached 75%, increased to 77% at epoch 50, and reached 88% at epoch 100.

Keywords: *Rice Leaves, Classification, Convolutional Neural Network (CNN)*