

ABSTRACT

Rice is one of the most consumed staple foods in Indonesia. The types of rice varieties can be classified based on the length and shape, texture, and color. Classification of rice varieties is very important because each type of rice has different nutritional content. The technique used to determine rice varieties is usually done by the granular method or seen from its morphology. To classify rice varieties in this study using the Convolutional Neural Network method. Convolutional Neural Network (CNN/ConvNet) is a Deep Learning algorithm which is the development of Multilayer Perceptron (MLP) which is designed to process data in two-dimensional form, for example in images. CNN has a variety of architectures that can be used to classify rice varieties based on their image. The type of CNN architecture used in the classification of this rice variety is VGG16Net and Mobilenetv2 using the feature extraction method. Both architectures are used to conduct training and testing on the Google Collaboratory infrastructure. From the training data, it is then saved and converted into a.h5 file and imported into a project on Android Studio using the Flask Library so that it can be implemented on the Website.

Keyword: *Rice, Deep Learning, Flask, CNN, Mobilenetv2, VGG-16*