

ABSTRACT

The PPTK Gambung Tea and Quinine Research Center in Indonesia makes eleven series of superior gastric tea clones. Each series has a different way of planting. The wrong way to plant will lead to crop failure. To avoid crop failure, knowledge of the type of clone to be processed is needed. To overcome these problems, an Android-based application is made for the classification of types of stomach clones based on leaf photos which will be processed in real time. The algorithm used for classification is a convolutional neural network with a mobilenet architecture. This study uses two types of data, the first dataset has 1136 photos and the second dataset has 830 photos. The parameters used are the learning rate of 0.0001, adam optimizer, epoch 100 and 204 neurons in the hidden layer. From the results of tests carried out, obtained by 60% testing and application testing results by 25%.

Key words: Types of series tea clones, Classification, Convolutional Neural Network, *Mobilenet*