Application of Deep Learning Using Convolutional Neural Network (CNN) for Classification of Poisonous Plants Using the Mobilenet Model

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ABSTRACT

The number of plants in the wild makes it difficult for climbers to find plants that can provide nutrients for the body. Plants have thousands of millions of species, where between plants have similarities or are vague. So it is necessary to be careful to identify plants that have the same characteristics. One of the differences that plants have is in the leaf pattern, leaf blade, leaf bone and leaf color. Thus, it can be useful to utilize leaf patterns, leaf blades, leaf bones and colors for parameter recognition. With parameters so that it can be applied in the field of machine learning (Machine learning). In Machine Learning (ML) there are problems, namely object detection and image classification. Deep learning used for object recognition and classification is Convolutional Neural Network because it was widely used in the past and produced significant results in image research. In this study, plant recognition was carried out and did not use the Tensorflow framework with a dataset of 1312 images. The results showed that the CNN method obtained an accuracy rate of up to 89.2% for detecting plants and it was not accurate.

Key Words: Deep Learning, ML (*Machine Learning*), CNN (*Convolutional Neural Network*)