Abstract

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Succulent plants are a type of ornamental plant that are found in many species in Indonesia. Succulent plants have many types of genera, where each genus has various characteristics and characteristics making it difficult to identify the type of genus in succulent plants. Therefore, the authors created a system that can recognize the types of succulent plant genera through images using the Convolutional Neural Network (CNN) method.). CNN is a deep learning technique that can be used to recognize two-dimensional objects such as images and videos. CNN has many types of network architectures, the CNN network architecture used by the author to build this system is a custom architecture and the author also uses k fold cross validation which aims to ensure the accuracy of the accuracy generated by the system model. The research was conducted by the author by comparing the model trained using the color dataset (RGB) and the model trained using the grayscale dataset. From the results of the study, it was found that models trained using color datasets have higher accuracy than models trained using grayscale datasets, namely 93% for models with color datasets while models with grayscale datasets have 64% accuracy.

Keywords: convolutional neural network, deep learning, k fold cross validation, RGB, grayscale