

ABSTRACT

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IMPLEMENTATION OF DEEP LEARNING USING THE CNN METHOD TO CLASSIFICATE DICOTY AND MONOCOTIL PLANT TYPES

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Plants are living creatures that have leaves, stems and roots so they are able to produce their own food by using chlorophyll to undergo the process of photosynthesis. In general, there are two categories of plants, namely gymnosperms and angiosperms. Gymnosperms are types of plants with open seeds while angiosperms are plants with closed seeds. Angiosperm plants are then divided into monocot plants and dicot plants. There are various types of dicot and monocot plants, so a system is needed that can classify dicot and monocot types. As technology develops, there are many ways that can be used to identify an object, one of which can be done with image processing. This research aims to differentiate monocot and dicot leaf veins using the Convolutional Neural Network method. Identifying dicot and monocot plant types requires a classification system that utilizes deep learning algorithms. The data used in this research are images of 2 dicotyledonous plants and a monocotyledonous plant obtained by downloading them manually from the image column search on the Google website. The results of the model obtained an accuracy value of 93.00% in experiments using the Xception model.

Reference (2016 - 2023)