ABSTRACT

DIAGNOSIS OF TOMATO LEAF DISEASES USES VGG-19 METHOD

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Plant diseases, which often cause losses to farmers, require a very long time to identify manually, so errors in disease detection are possible. Detecting disease in plants early can overcome these problems and reduce the risk of reducing crop production. The purpose of this research is to create a comparison of how to detect tomato leaf disease quickly and accurately compared to previous researchers. This research used a Deep Learning application that can be applied effectively for image classification using the VGG-19 architecture. Implementation of this model used a dataset containing 2,694 images, including 3 types of different diseases. The conclusion of this research was the fastest and most accurate way to detect tomato leaf disease. The accuracy obtained in architecture VGG-19 was 91.85% with the best increase in accuracy, compared to previous journals that obtained an accuracy value of 87%.

Keywords: Deep learning, VGG-19, Tomato Leave Disease.

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