

**DETEKSI DAN KLASIFIKASI JENIS JAMUR LIAR
MENGUNAKAN ALGORITMA CONVOLUTIONAL NEURAL
NETWORK (CNN) *Detection And Classification Of Wild Mushrooms
Using Convolutional Neural Network (CNN)***

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ABSTRACT

Wild mushrooms often have highly similar visual characteristics, making it difficult for the public to distinguish between edible and poisonous species. Misidentification can lead to poisoning and serious health risks. This study aims to develop an image-based wild mushroom detection and classification system using the Convolutional Neural Network (CNN) method and implement it into an Android mobile application. The method used in this research is the MobileNetV2 architecture with a transfer learning approach. The dataset consists of 6,000 images of four mushroom species: Auricularia auricula-judae, Fly Agaric, Termitomyces, and Amanita pantherina. The model was trained using TensorFlow and Keras, then converted into TensorFlow Lite and integrated into the Android application. Model evaluation was conducted using a confusion matrix and classification report. The results show that the model achieved an accuracy of 90%, and the developed application is capable of performing classification through both camera and gallery input effectively. This study demonstrates that CNN is effective in assisting practical wild mushroom identification.

Keywords: *mushroom classification, CNN, MobileNetV2, transfer learning, Android application*