ABSTRACT

Skin cancer is one of the most common types of cancer worldwide. Early detection of skin cancer is essential to improve a patient's chances of recovery, but this process often requires professional expertise and can take a long time. Therefore, a method is needed that can help in the process of skin cancer classification. This study aims to classify skin cancer images using the ResNet50V2 architecture with the application of fine-tuning. This study uses the ResNet50V2 architecture due to its strong performance in skin cancer classification tasks. Fine-tuning is applied to improve the accuracy of the model by adjusting the layer weights closer to the output to learn more specific features related to the skin cancer dataset. In this study, the ISIC 2019 dataset was used which consisted of benign and malignant skin cancer images. The experimental results showed that the fine-tuned model achieved an accuracy of 94.25%, which indicates the model's excellent performance in skin cancer classification. In contrast, models without fine-tuning only produce 90.15% accuracy. These results indicate that fine-tuning is highly influential in improving the model's performance in recognizing skin cancer images with higher accuracy.

Keywords : Skin Cancer, Image Classification, *Fine-Tuning,* ResNet50V2, ISIC 2019