

ABSTRACT

Javanese script is one of the writing systems with special characteristics in the Javanese language. In modern times, the use of the Javanese script writing system continues to decrease, so it is not recognized by many Javanese people. In fact, Javanese script has a long and significant history for Javanese culture. One of the efforts that can be made to overcome this is by utilizing deep learning as a Javanese script handwriting image recognizer. In this research, the deep learning model EfficientNet is used because it has parameter efficiency and its ability to produce high accuracy. The dataset used in this research is a handwritten image of Carakan Javanese script and Murda Javanese script consisting of 7,074 images divided into 27 classes. The EfficientNet-B0 model used successfully achieved an accuracy rate of 98.63%, while the modified model showed an accuracy of 98.40%. The modifications made to EfficientNet-B0 aim to reduce the number of parameters, making the model lighter without significantly compromising its performance. With these results, it is hoped that the developed model can be the first step in preserving the ability to read Javanese characters and increasing the cultural awareness of Javanese people through a modern technology-based approach.

Keywords: *javanese script, deep learning, EfficientNet, classification*