

ABSTRACT

Abstract—Lampung Province has a regional language and script known as Had Lampung or KaGaNga, which is the native script of the Lampung people. Given the importance of preserving local culture, particularly the Lampung script, technology is needed to assist in its preservation and recognition. One technology that can be used is Optical Character Recognition (OCR), which converts images into text. To recognize Lampung script image patterns and classify the model, a Convolutional Neural Network (CNN) approach is used.

A CNN has several main layers: a convolution layer, a pooling layer, and a fully connected layer. In this study, the dataset was developed by collecting handwriting from a sample of respondents, followed by scanning and labeling. In this study, the Lightweight CNN demonstrated good performance, achieving an accuracy of 95.87%, a precision of 96.02%, a recall of 95.87%, and an F1-score of 95.88%. Meanwhile, the Medium CNN performed even better, achieving an accuracy of 97.87%, a precision of 97.95%, a recall of 97.86%, and an F1-score of 97.87%. These results demonstrate that the Medium CNN performs better than the Lightweight CNN and demonstrates its ability to effectively detect Lampung script letters.

Keywords: Lampung Script, Letter Classification, CNN