

IMPLEMENTATION OF CONVOLUTIONAL NEURAL NETWORK (CNN) METHOD IN RECOGNITION OF SUNDAN SCRIPT PATTERNS

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ABSTRACT

Sundanese script is one of the cultural heritages of the Indonesian people originating from the Sundanese tribe. Sundanese script has been declared as a native script whose continuity is protected and must be preserved. The Sundanese script has several types of script, namely the special script, Rarangkèn, Pasangan, Ngalagena Script and Swara Script. The Sundanese script is starting to be forgotten, Sundanese people rarely even use it in everyday life and lack understanding of their own regional language. One technology that can be utilized in this research is Machine Learning with the Deep Learning method. Deep Learning can recognize patterns or information without supervision from data that can help users in image recognition, namely the Convolutional Neural Network (CNN) algorithm. The model that has been determined as a research base will be used in the pattern recognition process, the system will receive input, then the system loads the model, then the system makes predictions and the system displays the results. The model used in this research is ResNet-18. The optimizer has the best ADAM performance and a learning rate of 0.001. The accuracy produced by ResNet-18 reaches 100%, 100% and 100% for validation, training and testing.

Keywords: *Convolutional Neural Network, Sundanese script, model, optimizer*