

## **ABSTRACT**

*Sundanese script is a historical relic of Sundanese society since the 5th century which must be preserved. One of the efforts in preserving Sundanese script by utilizing technology with the Convolutional Neural Network method. This research aims to build a program that can apply CNN to detect Sundanese script in real time, by looping detection on each input frame. The amount of data used is 5400 Ngalagéna characters which are divided into 18 classes. The results of this study are 1) Accuracy in normal writing of 20% at normal angle, 5% at vertical angle, and 10% at reverse angle. 2) Accuracy in bold is 10% at normal angle, 0% at vertical angle, and 17% at reverse angle. 3) The program cannot recognize faded writing. 4) System performance using 3 characters with input size 32x32 pixels resulting in an average FPS of 6.0212 and an average inference time of 192ms. At an input size of 64x64 pixels it produces an average FPS of 5.9139 and an average inference time of 193ms, and at an input size of 128x128 pixels it produces an average FPS of 5.7964, and an average inference time of 195ms. 5) System performance using 5 characters with an input size of 32x32 pixels produces an average FPS of 4.0135 and The average inference time is 262ms, at the input size of 64x64 pixels it produces an average FPS of 3.9976 and an average inference time of 262ms, and at an input size of 128x128 pixels it produces an average FPS of 3.8248, and an average inference time of 276ms. 6) System performance using 3 characters with input size 32x32 pixels Produces an average FPS of 3.5656 and an average inference time of 300ms, at an input size of 64x64 pixels produces an average FPS of 3.4402 and an average inference time of 306ms, and at an input size of 128x128 pixels produces an average FPS of 3.3293, and an average inference time of 324ms.*

**Keywords:** *Sundanese Script, Convolutional Neural Network, Deep Learning*