

***ABSTRACT*****SIGNATURE IDENTIFICATION USING *CONVOLUTION NEURAL NETWORK (CNN)***

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A signature is a characteristic that someone has in the form of a certain streak or character. Each person's signature must have different characteristics from one another which are useful for marking an event or having approved something formally or informally, as in the case of a transaction. Therefore, we need a system that is able to analyze the characteristics of signature patterns to make it easier to identify someone's signature. The method used in this study is the *Convolution Neural Network (CNN)*. CNN has 2 stages, namely the feature extraction layer and the fully connected layer. The first stage is preprocessing. Then before the training process, resizing the image is done, namely changing the size of the image. After that, the image extraction process is performed using the convolution layer and max pooling layer twice. Then the learning process is carried out using feed forward and back propagation so as to produce the weights and biases of each group of images. From the results of the research that has been done, the dataset used in this study was taken from the Kaggle website. The dataset used in the study amounted to 1000 signature data with a division of 750 datasets for training and 250 datasets for testing. This research produces 95% accuracy for training data and 99% for testing data using 1000 signature image data. It can be concluded that the Convolution Neural Network (CNN) method is able to recognize images well.

***Keywords: Convolutional Neural Network, picture, signature, kaggle.***