

Abstract

Signature is one of the unique attributes of a person that can be used as valid evidence to indicate a formal document that has been approved by the man who signed the document. To ensure the validity of the signature, it is not enough just to use the naked eye, especially if it involves a lot of documents with many signatures on it. So, it needs a signature recognition system which is able to distinguish between a genuine signature with a fake signature appropriately and can help users to authenticate the documents.

This Signature recognition system was built in three phases: preprocessing, feature extraction and classification processes. The results from preprocessing will become input to the feature extraction process which includes global feature, mask feature, and a grid feature. Then the results of feature extraction will be used for the classification process and verify the signature image of the test data by using Probabilistic Neural Network.

This final project used 200 units signature images that have been scanned from 10 people, consisting of 100 genuine signatures and 100 false signatures. The highest accuracy obtained in experiments on the train data was able to reach 100%, and the experiments on test data was reached 91,25%.

Keywords: *Signature, preprocessing, feature extraction, probabilistic neural network (PNN)*