

ABSTRACT

Paper money is an object that is very important in human life especially in the payment financial transactions. Industri banknotes as currency of a country monopolized by the state central bank in this case to maintain and ensure the value and set the monetary stability of a country.

In this final project titled "Detection Nominal And Banknotes Authenticity JST Using Backpropagation" expected to help the actors in the economic transactions to prevent fraud by rogue elements who distribute counterfeit money and assist in maintaining monetary stability in the State. In this task will take a sample image of paper money and then will perform pre-processing, extraction cirri, making the algorithm with Artificial Neural Networks (ANN) back propagation, and the results of the algorithm will be tested abilities. The author is expected to produce output results are accurate image processing capable of knowing the nominal value of paper money and find out the authenticity of paper money. Feature extraction is capable of producing accuracy above 80% are first-order feature extraction (entropy and kurtosis) and second-order feature extraction (correlation, inverse different moment, entropy, angular second moment) of the grayscale image, the image of red, green image, blue image, which all the image is not normalized. While in solving a case using the method JST Backpropagation, MSE parameter values, parameter number of neurons in each hidden layer, learning rate and the parameters can be expected not earlier. To get the best results is by trial and error or trial and error.

Keywords: Nominal Detection Banknote And Authenticity, JST backpropagation