

ABSTRACT

Everyone has a different personality - different. One's personality is influenced by environment and genes are passed down by family lineage. Genetically, except through laboratory testing, a person's personality can be known from the shape of organs in the process of its formation is influenced by genes, one of which is the fingerprint. Genetic fingerprinting is a structure in a very detailed order form and mark are attached to the man that can not be deleted or be changed and is unique, where no man has the same fingerprint pattern with others. Human fingerprint has many types, namely simple arch, tented arch, ulnar loop, radial loop, concentric whorl, spiral whorl, press whorl, composite whorl, double loop, and the peacock's eye. The pattern of the fingerprint is used as a reference or guideline in determining a person's personality.

On this undergraduate thesis, with co occurrence matrix method in the extraction characteristics and uses back propagation method as a method of classification. System requires the input of a person's fingerprint pattern image (test image) with a bitmap format (. bmp) utuk then performed feature extraction and classification by comparing the test image matrix with a matrix of training images have been recognized by the system.

Test results on this system indicate that the system is not reliable enough to use to determine a person's fingerprint pattern. This is evident from the data system level accuracy, which is only reached 20% on the orde II with 3 hidden layers, neurons [90 90 90], and using the function activation tansig. This accuracy value obtained from the comparison between the data correctly identified the amount of overall data.

Keyword : fingerprint patterns, digital image processing, back propagation, co occurrence matrix