ABSTRACT

Batik as the cultural identity from Indonesian people have been known in various part in the world. Even internationlaity batik was recognized by UNESCO on October, 22 2009 in Abu Dhabi, as the nation's cultural heritage of Indonesian people. Along with the times, now batik become a trend for most people of Indonesia, but many people do not understand or do not know yet about kinds of batik in Indonesia.

In this final project, batik will be try to recognize with artificial neural network (ANN) backpropagation with feature extraction method using principal component analysis (PCA). Variuous researches have been carried out like introduction of the diatom genus and detection osteoporosis disease (bone loss) had a good results. It is expected to this batik research the result will be optimum.

Batik is used in this research from geometric class like tumpal, sidomukti, kawung, and parang and also from non geometric class like gurdo. All of the trainning images and testing images will be processing process like convert RGB to grayscale and normalized the dimension of images be 100x100 pixels. Then, feature extraction using PCA. The results from feature extraction will be input for ANN backpropagation.

From the test result can be concluded that the overall acuracy system is 74.29722%, acuracy trainning is 100%, and accuray testing is 22.26667%. Accuracy of the data training showed small identification, so extraction feature method using PCA is lees suitable for batik pattern recognition using ANN backpropagation.

Keywords   : batik, image processing, PCA, ANN backpropagation