ABSTRACT

Batik is the art of drawing on fabric which is specially made in its making. Batik crafts in each region have certain characteristics, one of which is Pekalongan batik. Not many people know about the development and types that distinguish batik from other countries, due to the lack of a good computerized data collection and the absence of applications to analyze Pekalongan batik to help the knowledge of the Indonesian people. Based on the above problems the writer makes a system that can identify Pekalongan batik motifs.

In this Final Project a research on Pekalongan batik identification has been carried out using the Gray Level Co-occurrence Matrix method as a feature extraction method and the Probabilistic Neural Network method as a classification method. The Gray Level Co-Occurrence Matrix method is a matrix that contains information about the neighboring pixel positions that have a certain gray level. Probabilistic Neural Networks are far more relatively insensitive to outliers and produce accurate target probability predictions.

From the test results obtained the best accuracy of 98,33%. Accuracy was obtained from testing 150 images using the parameter Gray Level Co-Occurrence Matrix contrast-correlation-energy-homogeneity, with angular values $0°, 45°, 90°135°$, and radius = 1. While Probabilistic Neural Network uses the 256×256 image size parameter and the Spread value 0.1.

Keywords: *Batik, GLCM, PNN*