

ABSTRACT

Batik is one of Indonesian textile craft and has been designated a Cultural Heritage for Humanity Oral and Nonbendawi on October 2, 2009. Batik is said to be the nation's heritage of Indonesia as developing hereditary batik in Indonesia as the time of the Majapahit empire to today's modern era. Batik has historical value and is a form of cultural identity of each region. As one "wastra" Indonesia, batik has its own characteristics and full of meaning in each of its motives. In order to participate in preserving the heritage of batik, the Final Project is carried out based on the recognition motif structure analysis. This type of motif that will be recognized, namely : Mega Mendung, Kawung, Truntum, and Parang.

The initial steps are the motif image acquisition. The image will be in the preprocessing by converting RGB images to grayscale images, red, green, and blue. In the image preprocessing results will then be taken characteristic of batik motifs using first order characteristics and features of second order. Parameter-parameters to characterize first order and second order characteristics are collected and then entered on the classification method using k- Nearest Neighbor so the system can classify the types of batik motifs.

From the results of the testing with the stage of preprocessing, feature extraction using a statistical order one and two, and classified by k- Nearest Neighbor method, the system can obtain a maximum degree of accuracy by 81%. Accuracy is obtained by using second order statistics and at $k=2$.

Keywords : Batik, preprocessing, first order feature, second order feature, k-Nearest Neighbour