

**BATIK RECOGNITION BASED ON TEXTURE
FEATURES USING GRAY LEVEL CO-OCCURANCE
MATRICES AND RANDOM FOREST**

Aji Seto Arifianto S.ST, M.T, as a counselor

Rakhmat Fadilah

**Study Program of Informatics Engineering
Majoring of Information Technology**

ABSTRACT

Indonesian batik has a variety of motifs and models, which differ in each region and become the hallmark of the region. With the variety and number of batik motifs, the majority of people find it difficult to recognize and distinguish the characteristics of batik cloth motifs, because not all people have knowledge of the types and motifs of existing batik. The differences in existing motifs can be recognized through differences in the shape and texture of the core motif. For this reason, an information system was developed and built that has a function to recognize and identify batik images. This application applies computer vision where the computer is given knowledge so that it can carry out the image identification process. The method used for image extraction is Gray Level Co-occurrence Matrices (GLCM) with parameters contrast, dissimilarity, homogeneity, energy, ASM, correlation, IDM and entropy with different angles of 0° , 45° , 90° and 135° . Batik image data used a total of 400 images, which consists of 360 images of training data and 40 images of testing data. The classification method in this study uses Random Forest. By testing the confusion matrix, the results obtained are True Batik Jember 8 with False 2, True Batik Bondowoso 7 with False 3, True Batik Situbondo 7 with False 3 and True Batik Banyuwangi 9 and False 1. The accuracy results obtained are 77.5 %

Keywords : Batik, Computer Vision, Motifs, GLCM, Random Forest