

## **ABSTRACT**

*Batik is one of the ancestral heritage of the archipelago that has been recognized by the world. Almost has various kinds of meaning and history from the area. For example, in Solo there are several regions that are famous for their batik throughout Indonesia, namely Parang, Kawung, Truntum. These batik have different motives and characteristics. Because of its high cultural and historical values, it can create a system that can be used to sort out the types of batik.*

*This Final Project aims to design a system capable of detecting the type of Solo batik's pattern. The initial step is done by taking pictures using a digital camera. After that, the process is done to get the characteristics of the batik's pattern using preprocessing by resizing the image, then changing the RGB image to grayscale, after that using edge detection canny algorithm. After the preprocessing stage is complete, feature extraction is done by using Histogram Of Oriented Gradient and classifying it using Learning Vector Quantization.*

*From the test results using 18 training images (6 images for each batik) and 30 system-measured images (10 images for each batik) by 90% with an average time of 2,6591 seconds using feature extraction method Histogram Gradient Oriented with block size  $4 \times 4$  and 9 bin orientation. While the learning process of Vector Learning Quantization uses the epoch value 600 for a performance value of 0.0392.*

*Keywords: Batik, Histogram Of Oriented Gradient, Learning Vector Quantization*