

## **ABSTRACT**

*Many ships sailing in the waters of Indonesia. Therefore, we need a system that can determine the type of ship to make it easy to record any ship that was sailing. One solution that is used to monitor the ship is AIS (Automatic Identification System). However, the system still has shortcomings such as not include a picture of the ship. To support the system, has been done research to classify the type of ship by utilizing the digital image processing.*

*Types of vessels that are classified in this final project consists of four categories, namely Bulk Carrier, Crude, LCT, and others. The others category is a random ship that is not defined in the system. The image is used in the form of ship images obtained from Google Earth. The method used in this final project is the Local Binary Pattern (LBP) and Linear Discriminant Analysis (LDA). LBP is used as a method of feature extraction process to get the important characteristics of an image and process the results will be input for LDA classification. The process of data using 60 training practice, while for testing using 80 test images.*

*The results showed that LBP and LDA methods in the type of ship classification has an accuracy of 81,25%. Testing the entire hull has a low accuracy at 51,25%. The ship's position does not affect the accuracy of the system. The more training data, then the accuracy is increased. Variant values (P, R) is the best variant (8.1). Accuracy can be improved with a more valid data.*

**Keywords : ship classification, digital image, LBP, LDA**