

ABSTRACT

Public transportation is one of the best solution if someone want to going somewhere and don't have any personal transportation. The cheap cost and fixed route are one of attractions to people for using it. In Bandung city, public transportation that usually used by people is city transportation or usually called "angkot" . Regarding the survey result,70% people who want to use angkot for transportation, they don't know what route that angkot will be passing through. They usually just guessing the route which cause the probability for lost increase.

Therefore, in this research on Application Public Transportation Route Classification in Bandung Based on Image Processing with Colour Histogram using Android Operating system final project, there will be an application based on android that can classify the angkot route in Bandung from its color. This application work is start from train the system to get the values from training image feature extraction. Then, system will be tested using the same process with training process. The process begin with preprocessing, feature extraction using color histogram , and then classify it using Euclidean Distance histogram . After the process, system will be connected with a map that has been modified with the route of angkot.

System performance calculated based on accuracy aspect and computation time. Based from the result of the testing and analyzing in 5 different lighting condition with 500 image testing, in the morning time, system has the best accuracy . It is 76% and its adopt a quantized HSV 18 hue, 3 saturation, and 3 value. The fastest computational time has got when the system using the lowest combination color quantization which is 4,721 second. The writer hopes that this system can be developed to be publicated for commercialization in public using another method for the better accuracy.

Key Word: Angkot, Angkutan Kota, Color Histogram, HSV, Euclidean Distance