

## Abstract

Public transportation shelter is a place for lift and/or drop passenger which is equipped with building. Big shelters are equipped by complete facilities such as route information, arrival schedule and comfortable place. While small shelters don't have those facilities. Therefore it need more facilities to ease the used of public transportation.

One of many facilities that need to add to the shelter is arrival announcement. In this final project, a detection system for public transportation is designed. The purpose of this project is for detect which public transportation that will arrive at the shelter. This system is based on digital image processing which using canny edge detection, Histogram as feature extraction method and *K-Nearest Neighbor* as classification method. Output from this system is a text at lcd that show which route public transportation will come.

The result of this research is a system that can detect public transportation with an accuracy rate 63 %.

**Keyword** : Public Transportation, Histogram, *K-Nearest Neighbor*