ABSTRACT

Traffic signs on the highway is an attribute that serves to maintain the safety of road users. Images of traffic signs is a feature that involves content images include the basic characteristics of color, shape and texture. In the images of traffic signs is characteristic of the dominant form features that fill the image content. To recognize traffic signs are the authors developed an application in image processing.

This final project aims to produce a tool that can process the image of the picture of traffic signs and identification using shape and color analysis. Results of image processing will be input on pattern recognition and image identification of traffic signs so that can know the characteristics that existed at that image. The method used in the analysis of the identification of traffic signs is a template matching where the working principle of this method is to match the test image with a template exists on the system. Template matching is able to perform calculations, recognition, and decision making.

Research conducted this final test of 44 test images at morning, noon, afternoon, and evening, where the best accuracy occurs in the morning by 100% and the worst at noon for 71.43%. While the overall accuracy is 84.09%. The fastest time computing happens on the signpost opportunities for the longest time 8.830 seconds and on signs for both directions of 9.078 seconds. Where the overall system performance computing is 8.973 seconds.

Keywords: Template matching, gabor filter, image processing, traffic signs