

ABSTRACT

The development of transportation technology increasing rapidly. Advance Driving Assistance System (ADAS) as a standard safety feature in modern vehicles is one of the most developed transportation technologies and well-researched by either vehicle manufacturers or academics. The ADAS is built by several subsystems, one of which is the detection and recognition of traffic signs.

In this final project will be done by using a system of detection and recognition of the speed limits traffic signs, on the edge of the road and with certain conditions. The process of detecting traffic signs using HOG (Histogram of Oriented Gradient) as a feature of image and classified them using SVM (Support Vector Machine), then in the recognition phase of the signs using SVM (Support Vector Machine) method.

With the detection and recognition system of traffic signs, it is expected to improve the components of ADAS. The output of this system is information about the allowed speed limits on the road based on detected and recognizable sign. Test results show the system need 45.73 second for detecting and 15.93 second for recognizing a road sign, and yields more than 80% both detection and recognition.

Keywords: Detection, Recognition, Histogram of Oriented Gradient, Support Vector Machine.