Abstract

Classification of vehicles on the highway is important to know what type of vehicles through the area. But it certainly requires a great effort if the job is done by human observation. Computer vision is a branch of science that could replace the role of experts in conducting visual assessments. By using computer vision can certainly help the human's job to observe the visual object especially in large quantities.

This study uses a video taken by a camcorder in Pasir Koja toll road by using 2 datasets at different locations. The method used in this study was Gaussian Mixture Model as a method to separate background and foreground, Local Binary Patterns as feature extraction method, and Linear Discriminant Analysis as classification method.

The best test results obtained when testing using LBP parameter radius 2, the distribution of the region into 25 pieces, and the image size of 60x60 pixels. The test results obtained by calculating the average F1 measure and obtained the value of 82.33%.

Keywords : GMM, LBP, LDA, *Classification, Toll road*.