ABSTRACT

Increasing number of vehicles in traffic especially in big cities is very high. In the highway there are many vehicles that did not classified by type resulting in unpredictable damage of highway every year. Thus the rennovation can not be done on schedule. The purpose of this study is to review the condition and find the best solution.

Because of technology advancement, vehicles in highway can be detected and classified by type with a system that connected to a few of cameras that can take picture of the passing vehicles.

This study conduct a study application of digital image technology by processing information as picture. The process in this identification of vehicle are data acquisition, pre-processing, feature extraction and classification of vehicles. Method that used in this study for extraction vehicles type is basic geometric parameters. For classification type of vehicles using algoritma K-Nearest Neighbor (K-NN). As a result from this study, the researcher can get a recognition accuracy for 89% by using 4 parameters extraction basic geometric parameters and classification K-Nearest Neighbor.

Keywords: Image Processing, Basic Geometric Parameters, K-Nearest Neighbor (K-NN).