Abstract

Toll road is a paying facilitate that were created to prevent congestion. Payments on the highway based on the type of each vehicle that will use the toll. The tax`s rules on the highway is currently divided into five class. Own classification of vehicles based on the number of axles of the vehicle. Class | I is the official vehicles, sedans, and 4 wheels vehicles were no charge. Class II is a 4 wheels vehicles were heavily loaded. Class III is the class of 6 wheels vehicles. Class IV is the 8 wheels vehicles. Class V is the vehicle that had more than 10 wheels. Especially for bus toll tax based on the latest regulations, the bus put into class I.

In this Final Project a vehicle will be identified and classed into factions that apply to the tariff system at the toll booths. This system uses a webcam which is placed facing the object side view to acquiring the image. Will initially sought patterns of the area around the wheels of the vehicle and then compared with the reference pattern in the database to determine the type of vehicle classes. There are approaches in classification to refine the analysis, where the starting point for classifying the use template matching method. Approach to the introduction of classes of vehicles using template matching method is to select the minimum value of the comparation pixel intensity between the pattern of the area around the vehicle's wheel with an existing template pattern.

The result from this system is the system that can recognition the class of vehicle in tol gate with accuracy 100% and system has average computing time of 9.64 secon

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