

ABSTRACT

In recent years, the volume of vehicles in Indonesia has increased rapidly without adequate infrastructure development. imbalance in the number of vehicles and the availability of road facilities, congestion also often occurs at certain times and in certain areas. For example, traffic jams often occur in the morning on working days where employees go to their respective workplaces, the roads that are most likely to be jammed are the roads leading to the work place. This applies not only to employees, to traders, especially traders of agricultural products, the same thing will also arise, especially in the middle of a city. This study offers a system that can automatically calculate the number of vehicles using the Contour Method which automatically calculates the number of vehicles using Open CV. System and program testing by counting vehicles on the highway. Tests carried out on the test data video resulted in accurate calculations on the video 1 and video 2 test data showing a difference in the amount between the results of manual calculations and system calculations on vehicles. Errors in calculating the number of vehicles occur due to adjacent vehicle objects so that only one vehicle is counted in the system. Based on the results of the tests that have been carried out, the vehicle count system is able to count vehicles with the highest level of accuracy is 93% in video 2.

Keywords: *Congestion, Highway, Open CV, Contour*