Abstract

According to data from Badan Pusat Statistik (BPS), since 2004 the growth of motor vehicles ownership in Surabaya had reach 2.3 percent each year. In other hand, from 1997 to 2005, reliable road network did not grow significantly. Those will bring problem for recent traffic system, such as, traffic jam, pollution, even crime etc.

ITS (Intelligent Transportation System) is an implementation of existing technology in electrical, computing and telecomunication that used to solve traffic problems, such as traffic jam by redirection, alternative route, etc. a Real time traffic density counter software using video analysis was created in this final project. The method used to create this software is background substract and mathematical morphology, consequently the computation is very fast and real time.

The success rate of the system to count object at shadowless background is up to 97.73% for motorcycle and 95.83% for car. The success rate at shady background is up to 97.92% motorcycle and 50.76 % for car. Unfortunately, the success rate at night is just 45% for motorcycle and 90.91% for car .