ABSTRACT

AUTOMATIC TRAFFIC DENSITY MONITORING SYSTEMS IN THE ROAD WITH METHOD *NORMALIZED SUM-SQUARE DIFFERENCES* (NSSD)

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PT. Jasa Marga (Persero) according to Government Regulation no. 4 In 1978 a toll road operator in Indonesia and are allowed to establish branches throughout the Republic of Indonesia. In the implementation of information systems necessary to support the toll road. Among the traffic information system.

Development of monitoring access point traffic will increase and thus require more and more officers to monitor and the more space is needed to cause more and more difficult to report on the traffic conditions. To date to obtain the density of data traffic by assigning officers to monitor and estimate the density of traffic.

Required the application of systems that provide information about traffic density automatically. System that will automate the monitor made the traffic density. This will reduce the addition of personnel and the addition of space. The method used to calculate the volume of vehicles is the Normalized Sum-Squared Differences (NSSD). To build this application using a framework that is AForge.Net, which is an open source C# framework designed for development and research in the field of computer vision.

The research concluded that the system is able to assist officers in monitoring and estimating the density of traffic, the system is expected to have made the need for additional staff and space are not needed and expected time access to information density traffic faster.

Keywords : Monitoring, information traffic, streaming video, NSSD, AForge.Net, Computer Vision, PT.Jasa Marga (Persero).