**ABSTRACT** 

Traffic is motion or moving vehicles, humans and animals on the street from one

place to another by using the tool motion. In a traffic there are three essential components

such as human as the user, the vehicle and the road. The need of traffic information is

considered to be very important for drivers and riders to recognize condition of traversed

streets.

To get an information about traffic conditions then designed a system to determine

the traffic density based on the number of vehicles that pass a certain point in each unit of

time. In the final project, to get the information the author uses the method of Gaussian

Mixture Models that ability is one of the background subtraction method, which focuses on

the background and foreground segmentation. Process undertaken to determine the condition

of traffic on a road segment is then preprocessed video capture, background and foreground

segmentation, object counting and classification of road traffic conditions.

Keywords: traffic density, Gaussian mixture models,

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