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ABSTRACT

Chittagong has now been turned into 83rd most populous city of the world and 49th most populous city in the Asia as well as the 2nd most populous city in Bangladesh after Dhaka (World Statistical Data). As a result of huge population, traffic and transportation problems increasing day by day. As urbanization has progressed without plan and precaution, the city dwellers now witness traffic congestion at the late hours of the night. The traffic system of the city has already collapsed as the vehicles can't run on the main roads of the port city Chittagong due to traffic jam. Reaching one's respective destination in time is dream that is only warning.

At presents pedestrian crossing is one of the greatest challenges for the traffic and safety engineering communities. Present study deals with saturation flow & capacity analysis at selected intersections of Chittagong City. Tigerpass intersection has been selected as study area. Tigerpass circle is one of the busiest as well as one of the main root of the city. There are four directions of Tigerpass intersection named, Tigerpass to Dewanhat road; Tigerpass to Lalkhan Bazar road; Tigerpass to Station road & Tigerpass to Ambagan road.

Two methods are used in the study. They are field survey and photographic survey. A video of traffic flow of Tigerpass intersection is recorded firstly for the study work. All data are collected from the video records and then some calculations are done. Saturation flow, capacity and operating speed of vehicles were calculated for the intersection. Two histograms are also created for Tigerpass to Dewanhat intersection and Tigerpass to Lalkhan Bazar intersection to calculate the saturation flow. The road surface quality, road marking and signal system are observed from this intersection. Overall it is pointed out from the study that, the traffic flow condition at Tigerpass intersection is an unstable flow.

The present study is focused mainly on traffic volume capacity analysis only. The study is also related to the capacity of a roadway and its ability to accommodate traffic. Speed-flow studies are useful to evaluate the more parameters in transportation engineering. There is a scope on speed flow study on urban road links for future work.

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