**EFFECTS OF CONTAINER VEHICLE ON INTERSECTION CAPACITY IN MOTORCYCLE DOMINATED TRAFFIC FLOW**

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**Abstract**

Vietnam is a developing country where motorbikes are more popular than others such as car, bus, cycle, etc. More than 80% of trips are made by motorbikes in Vietnam. It is the development of personal vehicles that has caused problems such as traffic jam, traffic accident, air pollution, etc.in the big cities of Vietnam. Moreover, the operation of container vehicles in the areas makes the situation worse when its size greatly affects the efficiency of the transportation system. In this paper, the authors investigate the effects of container vehicle on intersection capacity in motorcycle dominated traffic flow in Vietnam. By analysing the data collected at real sites in Binh Duong province of Vietnam, the research estimates the intersection capacity based on observing the headways of traffic flow in the moments of non-container vehicles and those of having container vehicles. The research results show that the presence of container trucks causes reduction in the intersection capacity by up to 38.66%. The research then builds a microscopic simulation model to mimic the current situation and simulate various traffic scenarios with different values of container vehicle proportion of the traffic stream as well. The simulation model shows the effects of container vehicle on intersection capacity significantly when the proportion of container vehicle in traffic flow increases. The research results are useful for practical design of signalized intersections in areas having much container flow as well as building policies leading to sustainable development of transport systems in Vietnam.

*Keywords:* capacity; container flow; motorcycle traffic; simulation