

Field Saturation Flow Measurement Using Dynamic Passenger Car Unit under Mixed Traffic Condition

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Abstract : Saturation flow is a very important input variable for the design of signalized intersections. Saturation flow measurement is well established for homogeneous traffic. However, saturation flow measurement and modeling is a challenging task in heterogeneous characterized by multiple vehicle types and non-lane based movement. Present study focuses on proposing a field procedure for Saturation flow measurement and the effect of typical mixed traffic behavior at the signal as far as non-lane based traffic movement is concerned. Data collected during peak and off-peak hour from five intersections with varying approach width is used for validating the saturation flow model. The insights from the study can be used for modeling saturation flow and delay at signalized intersection in heterogeneous traffic conditions.

Keywords : optimization, passenger car unit, saturation flow, signalized intersection

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