

ABSTRACT

Some important traffic characteristics like approach headways, approach and departure speeds, deceleration and acceleration characteristics of vehicles at signalized and yield-controlled intersections, performance of drivers facing amber, saturation flow and pce factors were critically studied. The parameters analysed and the functions derived from these studies were incorporated in a simulation model for faithful representation of the traffic flow through a signalized intersection.

The results of simulation studies were used for determining signal warrants and capacity of the approach roads and were also compared with those of other investigators. These results were also found to be in good agreement with the saturation flow studies. The model is versatile enough to consider more than three types of vehicles.

KEY WORDS : Headway, Speed, Signal, Yield-control,
Intersection, Deceleration, Acceleration,
Saturation flow, Pce factor, Simulation,
Warrants.