

## THE EVALUATION OF TRAFFIC DELAY IN CONGESTED SIGNALIZED INTERSECTIONS UNDER MIXED TRAFFIC CONDITIONS

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### Abstract

The goal of this paper is to present the detailed methodology that is adopted for traffic management and various methods used for the performance evaluation and the management of the traffic. On a selected traffic corridor the peak hour is identified at intersection and mid blocks and the level of service (LOS) is found for both intersections and mid blocks based on delay and volume-capacity (V/C) ratios. Average journey time, running time, average journey speed, running speed is collected and analyzed for each segment separately and for the whole corridor followed by the bottleneck analysis, speed and time profile comparisons. Capacities for all the mid blocks were estimated by the respective level of services including delay of all the intersections. The level of service is calculated and speed contours are drawn to identify the bottlenecks. Speed and time profiles are compared with the travel patterns of the corridor during peak and off peak times. Traffic management measures were suggested which enables the traffic engineer to understand different types of traffic problems in a comprehensive manner so that compatible solutions can be drawn. This approach is in contrast used for solving traffic problems in an isolated manner which provides better insight to understand traffic problems by correlating the bottle neck situations by measuring various types of traffic parameters.

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Key Words : *Intersection delay, Level of Service, Capacity, Mid-block, Traffic management.*

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