

## **Sustainable Traffic Flow: The Case Study of Un-Signalized Pedestrian Crossing at Stationary Bottleneck and Its Impact on Traffic Flow**

**Authors :** Imran Badshah

**Abstract :** This paper study the impact of Un-signalized pedestrian on traffic flow at Stationary Bottleneck. The Highway Capacity Manual (HCM) analyze the methodology of level of service for Urban street segment but it does not include the impact of un-signalized pedestrian crossing at stationary bottleneck. The un-signalized pedestrian crossing in urban road segment causes conflict between vehicles and pedestrians. As a result, the average time taken by vehicle to travel along a road segment increased. The speed of vehicle and the level of service decreases as the running time of a segment increased. To analyze the delay, we need to determine the pedestrian speed while crossing the road at a stationary bottleneck. The objective of this research is to determine the speed of pedestrian and its impact on traffic flow at stationary bottleneck. In addition, the result of this study should be incorporated in the Urban Street Analysis Chapter of HCM.

**Keywords :** stationary bottleneck, traffic flow, pedestrian speed, HCM

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