

Traffic Noise Study at Intersection in Bangalore: A Case Study

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Abstract : The present study is to know the level of noises emanated from vehicles in intersections located in urban areas using Sound Level Meter and the possibility of reducing noise levels through traffic flow optimization. The main objective is to study traffic noise level of the Intersections located at on-going metro construction activities and which are away from metro construction activities. To compare traffic noise level between stop phase, go phase and drive phase at the Intersections. To study the effect of traffic noise level of directional movement of traffic and variation in noise level during day and night times. The range of Noise level observed at intersections is between 60 to 105 decibel. The noise level of stop and drive phases were minimum and almost same where go phase had maximum noise level. By comparing noise level of directional movement of traffic, it has been noticed that Vijayanagar intersection has no significant difference in their noise level and all other intersection has a significant difference in their noise level. By comparing noise level of stop, go and drive phase it has been noticed that there was a significant difference in noise level during peak hours compared to off-peak hour. By comparing noise level between Metro and Non-Metro construction activity intersections it has been noticed that there was a significant difference in noise level. By comparing noise level during day and night times, significant differences in noise level were observed at all intersections.

Keywords : noise, metro and non-metro intersections, traffic flow optimization, stop-go and drive phase

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