

Preliminary analysis of traffic-related pollutants measurements in different Petaling Jaya streets

ABSTRACT

This paper presents the preliminary analysis and trends of traffic pollutant released and assessment results in urban areas in Petaling Jaya, Selangor. The outcome indicates that road traffic and its infrastructure are the leading issues of air pollution problems in this study area. However, there exists a lack of research that has verified this assumption, considering real-world data of localized traffic flow. In this study, traffic pollutants data were collected at different street categories and investigated prior to traffic flow data. The concentration level were then compared with several guidelines and related previous studies where NO₂ and PM_{2.5} show considerably high amount of concentration which exceed all of the guidelines provided. The final results reveal that most of the concentration of the traffic-related pollutants measured except for NO₂ and CO are significantly different at all type of streets where higher amount of concentration was found at highways and local streets rather than urban streets, attributable to the higher traffic volume associated with the former. The statistical analyses of both the traffic pollutants and its flow data was then conducted, and the spatial analysis using interpolation was finally demonstrated.

Keyword: Trends; Traffic pollutant; Localized; Interpolation