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TRAFFIC IMPACT ANALYSIS FOR IMPROVEMENT OF URBAN ROADWAY SYSTEM - A STATISTICAL APPROACH

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Abstract

Rapid urbanization and commercialization of the developing countries has contributed to be additional traffic and has accounted the need for traffic impact studies. The traffic generated by the commercial establishments while entering the study area and while leaving the study area creates a lot of problems particularly congestion, sometimes leads to the developments of queues. This problem particularly effects during the peak hours. Apart from the inadequate parking providence also leads to the traffic congestion. Hence the necessity and need of study of impact of vehicle and population is a necessary subject of study. The hypothesis of this research is to develop regression analysis model for determining the validity of impact of traffic flow in the study area and recommend necessary mitigation measures based on the results and future condition analysis. In this study an attempt is being made to study the traffic impact analysis in order to find out the negative impacts of any development and for finding the mitigation measures to improve the transportation system so that a balance is achieved between supply and demand. Finally, to check the adequacy of existing and future infrastructure development so that future traffic is accommodated to restrict the uncontrolled and haphazard development. Traffic impact analysis for a busy central mall based in the central business district (CBD) area in the city of Hyderabad is researched upon. A trip generation model is developed to compute the trip rates and weighted average trip rates. Condition analysis is performed from the background traffic and mitigation measures are suggested based on the results and validation of data is computed through a software approach using Statistical Package for Social Sciences (SPSS).

Keywords : Traffic Impact Analysis, congestion, mitigation, trip generation model, SPSS