

STUDY ON ESTABLISHING RELATIONSHIP BETWEEN PER CAPITA TRIP RATE WITH DEMAND VARIABLES USING ARTIFICIAL NEURAL NETWORKS

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ABSTRACT

Trip rate is the ratio of the Total several trips generated per day to the Total population of the considered area. While considering a city as a study area it is difficult to relate the amount of trips that originate in that study area and the amount of trips attracted towards the study area in a conventional way. This study brings out some basic Demand variables that help in estimating the several trips in a study area. Relationship between Dependent (trip rate) and Independent (socio-economic & Land use) variables is established using Artificial Neural Network (ANN) using different learning functions which reflects its performance level. In this study we have used learning functions TRAINLM, TRAINSCG which provided better results in establishing the relation between Trip rate and Demand variables.

KEYWORDS: Artificial Neural Network, Dependent Variables (Trip Rate), Independent Variables (Socio-Economic & Land Use), Trainlm, Trainscg & Feed Forward Back Propagation Network

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