

Gis Analysis of Pedestrian Problem and Spatial Risk Areas for Each Buffer Zone in Urban Cities

A Case Study of Madurai City in Tamilnadu, India

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ABSTRACT. Pedestrian population has a major role in the urban transportation. As we know pedestrianism is a common activity in every city. 'Pedestrian' can be defined as a person who travels by walk. Pedestrians have a major role in the city traffic movement. In the urban centers pedestrianization is applied to reduce the city traffic problems. Madurai city is the second largest urban centre in Tamilnadu and it acts as an economic, cultural, educational and industrial centre for southern part of the state. The study area, Madurai is an old, cultural city. The traffic in Madurai is yet to develop. There is a large population moving in the city by foot for various purposes. The city of Madurai is situated on the banks of River Vaigai in Tamilnadu, a southern part of India. The city of Madurai is geographically located between 9o30'N to 10o 30'N latitudes and 77o 28' E to 78o 28' E longitudes. The city extends over an area of 51.82 sq.km. Which is next to Chennai, the capital city of Tamilnadu. For the present study, data has been collected from both primary and secondary sources. Questionnaire survey and interviews were conducted in about 600 respondents belonging to all age groups of pedestrians based on Stratified random sampling procedures. The graphic techniques such as Overlay analysis and buffering using GIS software like Arc GIS and Arc View. The important objectives of the present study 1. To identify the major problems faced by pedestrians in the city 2. To identify the problem areas and timings in Madurai city with regard to pedestrian comfort. This study helps to identify the problem areas, reason for the problems and gives suggestions to improve the facilities for the pedestrian population. An analytical study of pedestrian problem in Madurai city emphasizes to improve the pedestrian comfort within the city

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