Abstract

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A GIS Approach to Study the Bus Transit Network Accessibility, Case Study: The City of Alexandria.

The Geographic Information System powerful function of buffering is utilized to demonstrate its useful application in the field of Public Transit Service Accessibility. A proposed GIS approach is presented on how to estimate the public bus transit network coverage in terms of area and population. In addition, a similar approach is introduced to evaluate the public bus stops accessibility in terms of area and population. Several relationships were developed in the current study, which can be summarized in the following: - Bus routes covered area as a function of the access distance - Bus routes covered population as a function of access distance - Bus stops covered area as a function of access distance - Bus stops covered population as a function of access distance All above mentioned relationships are evaluated per specific district under consideration and for allover region of the studied city [city of Alexandria].