Parking site selection management using Fuzzy logic and Multi Criteria Decision Making.

ABSTRACT

The construction of new service centers is very costly and the optimal site selection of these centers, one of the parameters for determining their degree of effectivencess, is of high importance. Public parkings are an example for these service centers. Population growth, sprawling of cities and increasing of vehicles result in heavy traffic and prolonged city trips.Utilizing public parkings can be regarded as an effective approach to abate traffic load in city centers, in that spaces designated for vehicles parking along the roads would be freed, and consequently the usable space of the roads would increase, which in turn would contribute to the smooth flow of traffic. In this paper, we describe an ideal method for parking site selection by the use of GIS, fuzzy logic and weighting criteria to determine proper parking sites. Suitable place for parking is selected for one of the high traffic regions of Esfahan city in Iran.

Keyword: Parking site selection; Weighting criteria; Analytical Hierarchical Process (AHP); Fuzzy logic.