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Green Space Site Selection Using Combined F AHP Technique (Case Study: Region 14 of Tehran)

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Abstract

Nowadays integrated multi-criteria decision making (MCDM) and geographic information system (GIS) are commonly used in order to solve spatial problems. Different multi-criteria decision making techniques present different methodologies with certain limitations and advantages. Regarding mentioned limitations it is not simple to choose one of them. In this article, combined FAHP technique is used in order to minimize the limitation. By using Fuzzy and AHP techniques we proposed a methodology for site selection problem. After importing green space criteria in GIS framework we used them as criteria in AHP tree. By utilizing improved analytical hierarchy process through Fuzzy set theory, we tried to calculate weight of each criterion. FAHP is AHP improved by fuzzy set theory which is a useful approach for evaluating complex multiple criteria alternatives involving subjective and uncertain

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judgments. By using fuzzy set theory in AHP method the qualitative judgment can be qualified to make comparison more intuitionists and reduce or eliminate assessment bias in pair wise comparison process.

Keywords: Geographic Information System, Green Space, Multi-Criteria Decision Making, Fuzzy AHP Technique.

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