عنوان مقاله:

A Fuzzy TOPSIS Method Based on Left and Right Scores

محل انتشار:

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خلاصه مقاله:

Multiple criteria decision making (MCDM) problem is one of the famous different kinds of decision making problems. In more cases in real situations, etermining the exact values for MCDM problems is difficult or impossible. So, the values of alternatives with respect to the criteria or / and the values of criteria weights, are considered as fuzzy values (fuzzy numbers). In such conditions, the conventional crisp approaches for solving MCDM problems tend to be less effective for dealing with the imprecise or vagueness nature of the linguistic assessments. In this situation, the fuzzy MCDM methods are appliedfor solving MCDM problems. In this paper, we propose a fuzzy TOPSIS (for Order Preference by Similarity to Ideal Solution) method based on left and right scores for fuzzy MCDM problems. To show the applicability of the proposed method, two numerical examples are presented. As a result, our proposed method is precise, easy use and practical for solving MCDM problem with fuzzy data. Moreover, the proposed method considers the decision makers (DMs) preference in the decision making process. It seems that the proposed fuzzy TOPSIS method is flexible and easy to use and has a low computationalvolume.

کلمات کلیدی:

MCDM; TOPSIS; Fuzzy sets; Left and right scores

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