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INTUITIONISTIC FUZZY CREDIBILITY RELATION (IFCR) METHOD FOR MULTI - CRITERIA GROUP DECISION MAKING PROBLEM

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Abstract

This paper deals with the problem of ranking alternatives under multiple criteria. An intuitionistic Fuzzy Credibility Relation (IFCR) method is developed to solve the multi criteria group decision making problems. In this study the rating of each alternative is expressed in intuitionistic fuzzy numbers. The score function and accuracy function of intuitionistic fuzzy numbers are used to ranking the numbers. Then we define the concordance, discordance and support indices of intuitionistic fuzzy numbers. By aggregating the concordance index and support index, an intuitionistic Fuzzy Credibility Relation Matrix (IFCRM) is calculated. According to the IFCRM, the ranking order of all alternatives can be determined. Finally the illustrated example is given.

Key Words : *Intuitionistic Fuzzy Numbers, Fuzzy matrix, Fuzzy credibility relation.*

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