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A DECISION MAKING METHOD OBTAINED BY REDUCING SOFT MATRICES

Abstract:

Soft matrices was firstly defined by Çağman and Enginoğlu [3]. These are representations of soft sets, introduced by Molodtsov [1], for modelling vagueness and uncertainties inherent in the problems of engineering, physical science, biological science, economics, social science, medical science, etc. Çağman and Enginoğlu [3], presented a decision making method, called soft max-min decision making method, by using the concept of soft matrix.
In this study, firstly, we define two new soft matrix operations and obtain some of their properties. Secondly, we construct a new decision making method by using soft matrices. The soft decision making we constructed in this study is more practical among the other decision making methods and can be successfully applied to many problems that contain uncertainties. Finally, two applications of decision making problems in which it is necessary to use these new soft matrix operations, are presented. Since this decision making method constructed on soft matrices, then it can be easily transferred to a computer.

Keywords:

Soft set, Soft matrix, Soft operations, Decision making

JEL Classification: C69