On Solution of Interval Valued Intuitionistic Fuzzy Assignment Problem Using Similarity Measure and Score Function

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Abstract : The primary objective of the paper is to propose a new method for solving assignment problem under uncertain situation. In the classical assignment problem ( ), denotes the cost for assigning the job to the person which is deterministic in nature. Here in some uncertain situation, we have assigned a cost in the form of composite relative degree instead of and this replaced cost is in the maximization form. In this paper, it has been solved and validated by the two proposed algorithms, a new mathematical formulation of assignment problem has been presented where the cost has been considered to be an IVIFN and the membership of elements in the set can be explained by positive and negative evidences. To determine the composite relative degree of similarity of the concept of similarity measure and the score function is used for validating the solution which is obtained by Composite relative similarity degree method. Further, hypothetical numeric illusion is conducted to clarify the method's effectiveness and feasibility developed in the study. Finally, conclusion and suggestion for future work are also proposed.
Keywords : Assignment problem, Interval-valued Intuitionistic Fuzzy Sets, Similarity Measures, score function
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