

A Novel Hybrid clustering Method for Multi-attribute Decision-Making Datasets

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Abstract

A function is proposed for descritizing and classifying the uncertain data of multi-attribute decision-making (MADM) datasets using a hybrid scheme incorporating fuzzy set theory, Rough Set (RS) theory and a modified form of the PBMF index function. The proposed MADM index function is used to extend the applicability of the single-attribute decision-making (SADM) function. The validity of the proposed MADM index function is evaluated by comparing the descritizing results obtained for a simple hypothetical function with those obtained using a SADM function and the conventional PBMF function.

Keyword : Fuzzy C-Means, Fuzzy Set theory, Rough Set Theory, MADM index function.