عنوان مقاله:

Attribute Reduction in Incomplete Information System based on Rough Set Theory Using Fuzzy Imperialist Competitive Algorithm

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خلاصه مقاله:

In recent years, rough set theory has been considered as a strong solution to solve artificial intelligence problem such as data mining. But, the classic rough set theory is not effective in the case of attribute reduction in incomplete information systems. Since there are null values for some of attributes in a data set, an incomplete information system is created. In this paper, a novel method proposed to solve attribute reduction in incomplete information system based on rough set theory by combining and modifying imperialist competitive algorithm with fuzzy logic. Utilizing the fuzzy logic to control the parameters of the algorithm was useful and generated better solutions compared to its classic draft. In this research, no changes imposed on incomplete data, and it was just considered as a complete systems. The fuzzy imperialist competitive algorithm acted intelligently to reduce the number of attribute in incomplete information system, providing appropriate results that is worthy of attention.

کلمات کلیدی:

Attribute reduction, Fuzzy logic, Imperialist competitive algorithm, Incomplete information system, Rough Set Theory