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Fuzzy Classifiers with Information Granules in Feature Space and Logic-based Computing

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Highlights

- we carefully analyzed the concept of fuzzy classifiers elaborating on their functional modules and their design process,
- we present a thorough generalization of fuzzy classifiers by involving various t-norms and t-conorms and compare the performance of different construct strategies,
- we propose an augmentation method for the fuzzy classifier by introducing an interaction to quantify the strength of connection between the fuzzy rules and membership,
- we contrast the quality of fuzzy classifiers with those commonly non-fuzzy classifiers and identify situations where fuzzy sets used in classifiers outperforms their counterparts.

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