عنوان مقاله:

A New Hybrid Approach for Modeling Accurate Fuzzy Rule Based Classification Systems

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خلاصه مقاله:

we propose in this article a new hybrid method for modeling accurate fuzzy rule based classication systems. The new method is a combination of manifold based data mapping method, a heuristic fuzzy rule based construction method and an evolutionary based rule weighting approach. Manifold based data mapping method considers the intricate geometric relationships that may exist among the data and computes a new representation of data that optimally preserves local neighborhood information in a certain sense. Although this new representation does not secure the interpret ability of obtained fuzzy models, the main intention of this research is to improve the classication accuracy signicantly. Experiments on some well-known datasets are performed to show the performance of the new proposed approach. Some nonparametric statistical tests are used to analysis the results obtained in experiments. Experimental .results conrm the eectiveness of our proposed method in improvement of the classication accuracy

کلمات کلیدی:

Fuzzy Rule Based Classification Systems, FRBCSs, Manifold Learning, Rule Weighting, Genetic Network Programming, GNP