Abstract

The Feature Selection is one of the key processes for knowledge acquisition. Some data set is multidimensional and larger in size. When this data set is used for classification it may end with wrong results and it may also occupy more resources especially in terms of time. Most of the features present are redundant and inconsistent and affect the classification. In order to improve the efficiency of classification these redundancy and inconsistency features must be eliminated. The Feature subset contains the minimum number of features that most contribute to accuracy. In this paper, present a method for dealing with feature subset selection based on fuzzy Information measures for handling classification problems. First, to construct the membership function of each fuzzy set of a feature. Then, select the feature subset based on the proposed fuzzy Information measure focusing on boundary samples. It also presents an experiment result to show the applicability of the proposed method. The performance of the system is evaluated in MATLAB on several benchmark data sets in the UCI machine learning repository.

References

An Efficient Feature Selection Technique using Supervised Fuzzy Information Theory

Index Terms

Computer Science

Information Sciences

Keywords

Fuzzy Entropy  Data Mining  Attribute Reduction  Feature selection  Information Theory