Abstract

Attribute reduction of an information system is a key problem in rough set theory and its applications. Rough set theory has been one of the most successful methods used for feature selection. Rough set is one of the most useful data mining techniques. This paper proposes relative reduct to solve the attribute reduction problem in roughest theory. It is the most promising technique in the Rough set theory, a new mathematical approach to reduct car dataset using relative reduct algorithm. The redundant attributes are eliminated in order to generate the effective reduct set (i.e., reduced set of necessary attributes) or to construct the core of the attribute set. The technique was originally proposed to avoid the calculation of discernibility functions or positive regions, which can be computationally expensive without optimizations. This paper analyses the efficiency of the proposed backward relative reduct algorithm against forward selection algorithm. The experiments are carried out on car data base.
of UCI machine learning repository.

Reference


Index Terms

Computer Science

Algorithm

Key words

Rough set theory

Data mining

Knowledge discovery

Feature
selection

Forward selection

backward elimination