Abstract

This paper explores the usage of deterministic and soft computing approaches in frequent item set mining in temporal data. In deterministic approach TPASCAL and PPCI algorithms are discussed in this paper. TPASCAL is based on counting inference method and PPCI combines progressive partition approach with counting inference method to discover association rules in temporal database. For effective knowledge discovery both Soft Computing and Data Mining can be merged. Soft Computing techniques such as fuzzy logic, rough sets aims to reveal the tolerance for imprecision and uncertainty for achieving tractability, robustness and low-cost solutions. Temporal fuzzy association rule on quantitative database and RSMAR and RSHAR which are used for mining of multidimensional association rules with rough set technology are discussed. It can be seen the algorithms is effective to settle with some problems. All the models developed here lead to superior performance and efficiency of mining temporal patterns as compared to existing algorithms.

References

Deterministic and Fuzzy Model for Temporal Association Rule Mining

mining – a general survey and comparison”, SIGKDD Explorations 2:1, 58–64.


- Lee Wan-Jui and Lee Shie-Jue” December 2004 ”Discovery of Fuzzy Temporal Association Rules”, IEEE Transactions on Systems, Man, And Cybernetics-B: Cybernetics, Vol. 34, No. 6,


**Index Terms**

Computer Science

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**Keywords**

Data mining  temporal association rule  fuzzy logic  rough set  counting inference method