

Hybrid Filter for Attributes Reduction in Soft Set

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Abstract. The purpose of this research is to overcome hybrid parameterization reduction limitation that focuses only on individual parameter reduction, whereas in some cases the individual parameter reduction is not sufficient even implies reduction. It was found that the reduction sometimes is not able to reduce the number of data; hence, for this reason it became necessary to look for an alternative technique that can significantly reduce the parameters. This paper proposed an alternative method based on hybrid filter to select attributes in soft set. For significant candidates the method used R supp checking to confirm the correctness of the reduction. Comparison of the reduction methods shows that the proposed method provides better result than the parameterization reduction in enhancing reduction. The false candidates were filtered in the huge candidate reduction by the Min supp. The proposed method can be used to maintain object before attribute reduction as well as to reduce parameter size drastically while maintaining consistency in decision making.

Keywords: Parameter Reduction; Parameter Extractions; Soft se for Parameter Reduction.

1. Introduction

Uncertain data can be solved using mathematical principles, such as soft set theory [1], Soft sets are called (binary, basic, elementary) neighborhood systems. The standard soft set may be redefined as the classification of objects in two distinct classes; thus, soft sets can deal with a Boolean-valued information system. Molotov [1] stated that the advantage of soft set is that it is free from the inadequacies of parameterization tools, unlike in the theories of fuzzy set, probabilities and interval mathematics.

Techniques dealing with uncertainly that focus on parameter reduction, such as stated in [2,3,5,6], require a lot of effort to reduce a soft set since the parameters and objects