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## A Review on Soft Set-Based Parameter Reduction and Decision Making

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### Abstract

Many real world decision making problems often involve uncertainty data, which mainly originating from incomplete data and imprecise decision. The soft set theory as a mathematical tool that deals with uncertainty, imprecise, and vagueness is often employed in solving decision making problem. It has been widely used to identify irrelevant parameters and make reduction set of parameters for decision making in order to bring out the optimal choices. In this paper, we present a review on different parameter reduction and decision making techniques for soft set and hybrid soft sets under unpleasant set of hypothesis environment as well as performance analysis of the their derived algorithms. The review has summarized this paper in those areas of research, pointed out the limitations of previous works and areas that require further research works. Researchers can use our review to quickly identify areas that received diminutive or no attention from researchers so as to propose novel methods and applications.

### Keywords

**Author Keywords:** [Parameter reduction](#); [decision making](#); [soft set](#); [hybrid soft sets](#); [review](#)**KeyWords Plus:** [INTUITIONISTIC FUZZY-SETS](#); [GREY RELATIONAL ANALYSIS](#); [DEMPSTER-SHAFFER THEORY](#); [DATA FILLING APPROACH](#); [ROUGH SETS](#); [THEORETIC APPROACH](#); [ALGORITHM](#); [CLASSIFICATION](#); [ASSOCIATION](#); [PREDICTION](#)

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