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# Application of Fuzzy-Rough Set for Pre-Processing of Data

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**Abstract:** For processing of health data Rough set is an important tool. It can handle uncertainty and impreciseness without any additional or prior information about data. Though, it cannot deal with continuous data perfectly. Fuzzy sets can handle vagueness and it can also deal with continuous data perfectly. By hybridization of Fuzzy set and Rough set new concept Fuzzy-Rough set has been introduced. It can deal with imprecision and uncertainty for discrete as well as continuous data more precisely. To handle uncertainty more perfectly, vagueness of Fuzzy set and Indiscernibility concept of Rough set are merged in Fuzzy-Rough sets. Crisp equivalence classes are the main concept of Rough set. Fuzzy equivalence classes are the major ideas of Fuzzy-Rough set. In this paper it has been shown that Fuzzy-Rough set is an emerging tool for pre processing of data in applications like attributes reduction, missing value imputation etc.

**Keywords:** Rough set, Fuzzy set, Fuzzy-Rough set, Attribute Reduction, Missing value Imputation.

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