Abstract

In this paper an effective approach is proposed to enhance the classification accuracy of machinery datasets. Since in the today’s world of data estimation, data is increasing at explosive rate. At the same time that bulk of data may contain relevant or irrelevant data. Presence of rough data in the dataset’s creates hindrance in doing classification of huge amount of data. In this paper a clear picture is depicted of removing noisy and rough data from the datasets. We have selected a wide range of machinery data from UCI dataset repository for our study. Several learning a technique from different paradigms leads to the output extracted to be independent of the underlying classifier. In this paper, a novel classification technique called VPRS is used so to relax the subset operator. We have also used Levenberg-Marquardt algorithm to classify and compare the outcome results of training and testing phase. First of all, test attribute space is optimized and the attributes which are not correlated with the decision attributes are deleted. Experiments proved that the accuracy of dataset’s have got increased by using the combination of K-fold technique. Firstly the data sets are applied to VPRS algorithm which reduces useless attribute and these reduced attributes will get applied to Levenberg-Marquardt classifier to classify the datasets. This process is repeated for 5 times by using K-Fold Technique, and finally we have removed rough data from the machinery data set and increased classification accuracy.
A VPRS based Approach for Enhancement in the Classification Efficiency of Machinery Datasets

References

- Rajkumar Sharma, "An Optimize Decision Tree Algorithm Based on Variable Precision Rough Set Theory Using Degree of 

Index Terms

Computer Science  Applied Sciences

Keywords

K-fold technique  VPRS  ANN  Livenberg Marquardt Algorithm.