Abstract

The data mining is current age technology; it has a rich number of applications and domains for research and development. A number of researches are contributing in the different applications for improving the decision making, classification and other automated data analysis techniques. The proposed work is investigation of the data mining techniques for implementing with the predictive data analysis applications. Therefore a medical domain application is namely heart disease prediction system is desired to develop and implement. In observations that are found the heart disease prediction system can be implementable with the data mining based classifiers. But in most of the cases these classifiers are producing poor outcomes therefore a new technique for improving the classification performance is proposed and implemented in this work. The proposed classification technique includes the goodness of Bayesian classifier and neural network to reform the issues of single classification technique. The proposed classifier also includes a combined outcome generation technique for heart disease prediction. The combined outcomes are generated by incorporating the outcomes of both the implemented classifiers using the vote share basis. Additionally for computing the vote shares the validation
outcomes are utilized with the formulation of the proposed technique. The implementation of the proposed technique is performed using the Java technology and after implementation the performance study performed with respect to traditional Bayesian classification technique. For comparing the performance of both the implemented classifiers the accuracy, memory consumption, error rate and training time of the algorithms are considered as the key factor of comparison. According to the obtained performance the proposed classification technique improves the performance of traditional classification algorithms by vote share based technique. Thus the presented work is adoptable and efficient for machine learning and prediction applications where the accuracy is the key factor to achieve.

References

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Index Terms

Computer Science

Biomedical
Keywords

Data Mining, Classification, Prediction, Heart Disease Prediction System, Hybrid Classifier.