Abstract

Machine learning with classification can effectively be applied for many applications, especially those with complex measurements. Therefore classification technique can be used for prediction of diseases like cancer, liver disorders and heart disease etc which involve complex measurements. This is part of growing demand and much interesting towards predictive diagnosis. It has also been established that classification and learning methods can be used effectively to improve the accuracy of prediction of a diseases and its recurrence. In the present work machine learning techniques namely Support Vector Machine [SVM] and Random Forest [RF] are used to learn, classify and compare cancer, liver and heart disease data with varying kernels and kernel parameters. Results with Support Vector Machines and Random Forest are compared for different data sets. The results with different kernels are tuned with proper parameters selection. Results are better analyzed to establish better learning techniques for predictions.
Comparative Prediction Performance with Support Vector Machine and Random Forest Classification Techniques

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**Index Terms**

Computer Science
Information Systems

**Keywords**
Support Vector Machine Random Forest Kernels Radial Basis Function Sigmoid