Abstract

Now a days, cervical cancer is treated as one of the main causes of death of women due to cancer in worldwide. In this study, we collected 741 instances of cervical cancer data, preprocessed data, explored high ranked significant features using different feature selection techniques such as Information Gain (Info. Gain), Gain Ratio, Gini Indexing and $X^2$ and implemented different meta classifier techniques such as Dagging, Additive Regression, CVParameter Selection, MultiScheme, MultiSearch. After that we proposed a new ensemble learning method which is combined with different meta classifier algorithms. Then we found out different evaluation metrics such as Mean Absolute Logarithmic Error (MALE), Root Mean Square Logarithmic Error (RMSLE), Mean Absolute Error (MAE) and Root Mean Square Error (RMSE) using each of meta classifier algorithms. Later we compared the result of error rate of an proposed algorithm with the error rate result of different meta classifier algorithms and it showed that the proposed algorithm performs as the best classifier to classify these cervical cancer data. This analysis will be helpful to evaluate a performance model for researcher.
References

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Index Terms

Computer Science

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Keywords

Cervical Cancer, Feature Selection, Feature Ranking, Classification, Ensemble learning method