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Heart Disease Prediction System using Associative Classification and Genetic Algorithm

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Associative classification is a recent and rewarding technique which integrates association rule mining and classification to a model for prediction and achieves maximum accuracy. Associative classifiers are especially fit to applications where maximum accuracy is desired to a model for prediction. There are many domains such as medical where the maximum accuracy of the model is desired. Heart disease is a single largest cause of death in developed countries and one of the main contributors to disease burden in developing countries. Mortality data from the registrar general of India shows that heart disease are a major cause of death in India, and in Andhra Pradesh coronary heart disease cause about 30%of deaths in rural areas. Hence there is a need to develop a decision support system for predicting heart disease of a patient. In this paper we propose efficient associative classification algorithm using genetic approach for heart disease prediction. The main motivation for using genetic algorithm in the discovery of high level prediction rules is that the discovered rules are highly comprehensible, having high predictive accuracy and of high interestingness values. Experimental Results show that most of the classifier rules help in the best prediction of heart disease which even helps doctors in their diagnosis decisions.

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