A Data Mining Model to predict and analyze the events related to Coronary Heart Disease using Decision Trees with Particle Swarm Optimization for Feature Selection

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Abstract

Coronary Heart Disease (CHD) is a most common type of coronary disease which has no clear origin and a significant basis for premature death. Data mining has become an essential methodology for applications in medical informatics and discovering various types of diseases and syndromes. Mining valuable information and providing systematic decision-making for the diagnosis and treatment of disease from the entire database progressively becomes necessary. Classification in data mining performs an important role in data analysis and prediction. The objective of this work is to build a data mining model to be used by physicians and also to associate the risk factors related to heart disease. Data mining model has been developed using PSO – C4.5 algorithm. The proposed model yields reduced set of features using the feature selection algorithm along with improved prediction accuracy. Thereby the developed model can be successfully used in predicting other metabolic syndromes.

References

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Index Terms

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Keywords

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