Abstract

Data mining is a mechanism to locate divergent patterns that analyze the data and condense it into useful information. The idea of data mining are predictions and descriptions. The current research intends to predict the heart disease risk of patients. Probability rule base Clustering approach for Heart disease Risk Prediction (PbC_HRP) model is proposed in the heart disease risk prediction. In this model there are two approaches, PRBC (Classification approach) and OCPD (Clustering approach). Probability Rule Base Classification (PRBC) constructs knowledge base using medical guidelines and probability values and generates classification rules. Optimized Cluster Pair wise Distance base clustering (OCPD) uses the classification rules from PRBC, calculates fitness values and produces clusters which will represents the risk levels of heart disease. The clusters will give the features to the patients from the respective risk levels of clusters. It helps to warn the patient before disease became sever.


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**Index Terms**

Computer Science  
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**Keywords**

Data mining, Risk prediction, Probability Rule Base Classification, Optimized Cluster Pair wise Distance base clustering.