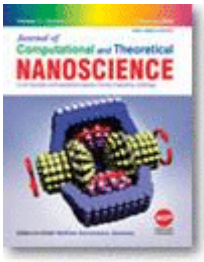

Prediction of Heart Disease with Principal Component Analysis Feature Selection and Machine Learning Classifiers

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Abstract | References | Citations | Supplementary Data | Suggestions

Medical data classification is the most challenging process as it needs to be executed accurately with an earlier prediction of heart diseases. Hence the earlier detection of heart diseases with higher accuracy is a significant drawback behind the existing systems. The significant contribution of the present study is to provide an effective approach to earlier detection and classification of heart disease. The algorithms such as Linear Regression (LR), Univariate and multivariate regression (UMR), ANN with Back propagation and Probabilistic Neural Network (PNN) models are used for effective health data classification processes. The outcomes are analyzed regarding the factors such as accuracy, precision, Recall, and F-measure score. It has been found from the analysis that ANN-BP provides comparatively better accuracy and prediction measures than the other techniques.

Keywords: Heart Disease; Machine Learning; Medical Data Classification; Neural Network

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