Classification Of Heart Sounds Using Wavelets And Neural Networks

Abstract

A heart sound feature extraction and classification method has been developed. It used the discrete wavelet decomposition and reconstruction to produce the envelopes of details of the signals for further extracting the features. Some statistical variables were extracted from the processed signals and used as the features for the heart sounds classification. A Multilayer Perceptron Neural Network has been used for classification of heart sounds. The performance of the proposed method has been evaluated using 250 cardiac periods from heart sound simulator. The proposed technique produced high classification rate of 92% correct classification.

Author Keywords