ENSEMBLE FEATURE COMPOSED OF INDEPENDENT COMPONENTS AND QRS COMPLEX WIDTH FOR ECG BEATS CLASSIFICATION

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Abstract

ICA-based features and the QRS complex width feature are extracted using the proposed method comprising of Independent Component Analysis (ICA) and wavelet transform. The dominant component of ECG signal is the QRS complex which helps in diagnosis of cardiac arrhythmia. QRS complex width provides much more information on cardiac diseases than other methods. An artificial neural networks classifier is experimented. The MIT-BIH arrhythmia database is used for validation of the method. The experimental results are in agreement with the method.