Abstract

Electrocardiogram (ECG) is used to assess the heart arrhythmia. Accurate detection of beats helps determine different types of arrhythmia which are relevant to diagnose heart disease. Automatic assessment of arrhythmia for patients is widely studied. This paper presents an ECG classification method for arrhythmic beat classification using RR interval. The methodology is based on discrete cosine transform (DCT) conversion of RR interval. The RR interval of the beat is extracted from the ECG and used as feature. DCT conversion of RR interval is applied and the beats are classified using random tree. Experiments were conducted using MIT-BIH arrhythmia database.

References

- R.M. Rangayyan, Biomedical Signal Analysis: A Case-Study Approach,
Investigating Cardiac Arrhythmia in ECG using Random Forest Classification


Index Terms

Computer Science

Signal Processing
Keywords
ECG  ECG Arrhythmia classification  MIT-BIH ECG data  RR interval  DCT  Random forest