Abstract

Cardiac Arrhythmia is assessed using Electrocardiogram (ECG). Different types of arrhythmia are determined by accurate detection of beats leading to diagnosis of heart disease. Visual inspection of ECG for arrhythmia is tedious and time consuming process. With the advent of image processing techniques, automatic assessment of arrhythmia is widely studied. Various algorithms were developed for detection and classification of ECG signals. This paper investigates ECG classification method for arrhythmic beat classification based on RR interval. The methodology is based on extraction of RR interval of the beat using Symlet on ECG data. The extracted RR data are used as feature for classification. The beats are classified using boosting algorithm. MIT-BIH arrhythmia database was used for evaluating the classification efficiency.

Index Terms

Computer Science  Signal Processing

Keywords

Electrocardiogram (ECG)  Arrhythmia classification  MIT-BIH ECG data  RR interval  Symlet  Boosting