

An Approach for ECG QRS Detection Using Support Vector Machine

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Abstract

Electrocardiogram (ECG) signal provides useful information of the condition of the heart. Most automatic ECG diagnosis techniques require an accurate detection of the QRS complexes. Among all ECG components, QRS complex is the most significant feature. Entropy based method for the detection of QRS complexes (cardiac beat) will be presented. Support Vector Machine (SVM) can be used as a classifier to delineate QRS and non QRS regions. The detection rate can strongly depend on the quality of training, data representation and the mathematical basis of the classifier. The classification performance of this automatic classifier is concerned with the detection of arrhythmia categories with six beat types.