

## عنوان مقاله:

Autonomous Detection of Heartbeats and Categorizing them by using Support Vector Machines

## محل انتشار:

بیستمین کنفرانس مهندسی پزشکی ایران (سال: 1392)

تعداد صفحات اصل مقاله: 5

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## خلاصه مقاله:

In this paper a new method for categorizing 5 special types of heartbeats has been developed by use of time and apparent properties of the Wavelet Transform of the ECG signal. By using the method in this paper first each heart beat identified autonomously and important points and segments of it, were derived. Then expected features for categorizing the heartbeats are extracted. Finally we categorized the arrhythmias by using the Support Vector Machines. In order to train the SVM and for analyzing its accuracy; arrhythmic signals of MIT-BIH dataset have been used. The results which have been achieved by this method also contain 96.67 percent of accuracy for categorizing five different heartbeats including Normal (N) Left Bundle Branch Block (LBBB), Right Bundle Branch Block (RBBB), Premature Ventricular Contraction (PVC) and Atrial Premature Contraction (APC). The advantage of using this method compared to the other ones is that we could achieve the expected precision by using less training attributes respect to the other methods

## کلمات کلیدی:

(arrhythmia , categorizing , ECG , segmentation , Support Vector Machine (SVM)

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/340107>

