

## عنوان مقاله:

ECG Arrhythmia Classification Using Evolved Multilayer Perceptron Neural Network

## محل انتشار:

کنفرانس ملی فن آوری و داده با رویکرد مهندسی برق و کامپیوتر (سال: 1394)

تعداد صفحات اصل مقاله: 6

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## خلاصه مقاله:

This paper presents evolvable multilayer perceptron neural network (MLPNN) for electrocardiogram heartbeat classification based on a combination of morphological and temporal features. Data has been obtained from the MIT-BIH database to classify heartbeats to one of the five beat classes recommended by AAMI standard. For classification of the ECG signals, a hybrid training algorithm has been used and MLPNN weights have been optimized using genetic algorithm. Then back-propagation algorithm has been used as a local optimization operator. The main advantage of weight evolution by genetic algorithm is to simulate the learning process of a neural network, avoiding the drawbacks of the traditional gradient descent, such as back-propagation. Simulation results demonstrate high .average detection accuracy of ECG signal patterns

## کلمات کلیدی:

propagation; Electrocardiogram (ECG); genetic algorithm; QRS complex; multilayer perceptron

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/396270>

