

INTELLIGENT ECG SIGNAL NOISE REMOVAL WITH MOVING MEDIAN FILTER USING NEURAL NETWORK

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ABSTRACT

In this paper, the electrocardiogram (ECG) signal is vulnerable to noise and artifacts, it is essential to noise removing using neural network, the noise in order to support First 3600 of noisy heart signals are collected from MIT-BIH data base. In this paper the use of moving median filter & artificial neural network. The available filter for power line interference need a reference channel or regard the frequency is fixed 50/60Hz.

In this literature of the last twenty five years several solution of noise removal on electrocardiogram (ECG) signal can be found. The spectrum of the ECG signal is extracted from the two databases arrhythmia and supraventricular. Baseline wander is removal using the moving median filter. The results shows that the intelligent artificial neural network system successfully denoised ECG signal. This study mainly focuses on cutoff frequency calculating best performance MSE.

KEYWORDS: Finite Impulse Response (FIR), Low-Pass Filter, Artificial Neural Network, Cutoff Frequency, Average Median Filter