

ABSTRACT

The noise content in Electroencephalogram (EEG) signals is a major problem in the analysis of brain wave conditions which generally appear in the recording process. The development of denoising methods is a goal in the research that has been done. Observation of system performance is carried out using the addition of Adaptive White Gaussian Noise (AWGN) noise, calculating the estimated noise level, threshold, denoising for the Discrete Wavelet Transform (TWD) method and the Discrete Hilbert Filter (FHD) method by convolution to the even and odd FHD. The results obtained using the TWD method produce an average value of Signal Noise to Ratio (SNR) of 71,24 dB and a Mean Square Error (MSE) of 42,14%. FHD results produce an average SNR value of 39,32dB and an MSE of 0.34%. The results obtained show that the denoising process using the Wavelet Transform is able to provide good denoising results for Phonocardiogram Signals, compared to using a Discrete Hilbert Filter.

Keywords: *Electroencephalogram, Wavelet Discrete Transform, Adaptive White Gaussian Noise, Filter Hilbert Diskrit, Signal Noise To Ratio.*