

Abstract

Necessity to get free-noise audio is very rapidly right now. Of course, everyone wants the audio can be heard very well without any disturbing noise. With current technology, noise in the audio can be eliminated through the process of denoising (audio noise reduction).

This final project uses DTCWT thresholding technique as a method for making audio noise reduction system. Through determination of the threshold parameters (threshold value), between the audio signal and noise signal is restricted. After that, by using a thresholding technique, signal known as the noise will be removed. Two techniques to eliminate this noise coefficient is with the hard and soft thresholding.

While DTCWT is used because it could well perform signal reconstruction. By leveraging the imaginary part of DTCWT, the signal that lost due to thresholding process on the real part can be replaced existence by imaginary part.

Keywords: denoising, DTCWT, hard thresholding, and soft thresholding