ABSTRACT

Embedding an information into a digital file is important to do today. Now distribution of digital file is very easy to do. Digital watermarking is purpose to embed an information into a digital file without any effect on it. Audio watermarking is one of them. The information for audio watermarking generally is the identity of owner or creator of the audio file.

In this final task the watermarking is done using intensity insertion adjustment method to keep the Signal to Noise Ratio (SNR) of the watermarking result and the embeding region is chosen based on the energy level of the audio. Intensity adjustment is use to make sure that the information is not disturbing or be disturbed by the audio file. Moreover, the determination of embedding region is based on high inflection where in general is an importan region of the audio itself.

Using the Discrete Wavelet Transform (DWT) method, we calculate the DWT coefficient. High coefficient is the best region for embedding process. The embedding is on the DWT coefficient. Then performed the IDWT to these coefficient.

The result of this final exam si an matlab application with a robust watermarking to noise or signal interference with Bit Error Rate (BER) is less or equal 2% and 35 dB < SNR < 50 dB.

Keyword: *Adaptive, Audio watermarking, SNR, DWT, copyright*