ABSTRACT

The development of information technology is currently growing rapidly. Someone could easily share the information. But, with that easiness, some people would probably misuse that technology. For example, hijacking and information modification. One of the files which susceptible to modification is an audio file. With this misuse of technology in music industry causing the producer or the music owner that actually harmed. Therefore, a technology to protect the copyright of the audio is required audio watermarking. Audio watermarking is a technique to interpolate data or proprietary information into audio.

In this research is done by watermarking in the audio file with a logo as the watermark. A method in use is Discrete Wavelet Transform (DWT) as decomposition method of input signal and Histogram as embedding method. Then, the system would be implemented in the web based application to make the user can access the application.

The result of this research is the watermarked audio quality can be changed in accordance to user needs. Imperceptibility in the audio can be arranged, adjusted by the status of the user. A good watermarked audio quality has SNR > 39 dB, BER < 0.34 and can withstand attacks such as low pass filter, resampling, time scale modification, linear speed change and MP3 compression. Based on MOS value, audio watermarking system produce a watermark imperceptible but not annoying, website system produce a system according to user requirements, helps the audio watermarking process, has an easy to understand look, and user satisfaction.

Key words: Audio watermarking, Discrete Wavelet Transform, Histogram, The Web