

ABSTRACT

Development of internet network and multimedia technologies are unavoidable result in the spread of information and data becomes easier. Each network user can freely send, receive, or copy data (images, video, and audio) digital. This raises the question of infringement of copyright (copyright) as piracy on the music content or digital audio. Thus the need for copyright protection techniques against the original digital data, one technique is to insert a watermark in the form of identity ownership information into digital data is called digital watermarking technique.

In digital watermarking, when watermark information is embedded into the digital audio, it can be called audio watermarking. Watermark information used in this study is black and white digital images, and digital audio format (.wav). The system built is blind audio watermarking system, where on extraction process does not require the watermark information and the original digital audio file.*

In this final project implementation and analysis conducted on blind audio watermarking system using SVD (Singular Value Decomposition), where technique of embedded watermark bit using QIM (Quantization Index Modulation). From the test results, obtained on average SNR (Signal to Noise Ratio) > 20 dB when variable $\Delta \leq 1/8$, and when the variable $\Delta \leq 1/16$ system able to achieve 0% on the value of BER (Bit Error Rate) for every kind of digital audio that were tested. For resistance to an attack, the system made no resistance to attack MP3 Compression and MP4 Compression because BER value can not be reached 0%, but is still resistant to the linear speed change, noise addition and LPF(Low Pass Filter).

Keyword : *blind audio watermarking, singular value decomposition, QIM, SNR, BER.*