

ABSTRACT

Development of internet has given people to access digital information without problem. One of the example is audio file. This easy way to access it make it vulnerable, it means it can be easy to claim by people who doesn't belongs to. That's why watermark is needed, so people can save their copyright.

The watermarking system that used in this final project using Fast Fourier Transform (FFT) based on Fibonacci number. In this system the watermark using random biner. Then the watermark will embed using Fibonacci number algorithm.

The result of this final project is to get watermarked audio without damaging or change the original audio. In this research shows that the best parameter are Nframe = 1024, threshold = 10^{-8} , nbit = 32. In this parameter, the watermark system has a fairly good resistance againts attacking by LPF, BPF, and Equalizer since it has BER value below 10%. From the tested audio, bass.wav has good resistance against attacks with an average BER value of 0.2557. and the biggest average BER obtained from this test on audio piano.wav is 0.3499. For the quality of audio, audio with the best SNR value obtained from Rock.wav and Bass.wav with SNR value of 31,0065. audio with the best ODG value available on Piano.wav with an ODG value of 0.437. and audio with the best MOS values on Drums.wav with MOS values of 4,066.

Key Word: Audio watermarking, *FFT, Fibonacci number*