

ABSTRACT

In this Final Project created a Digital watermarking audio system with the title 'Analysis and Implementation of Audio Digital watermarking method using Histogram Statistics'. Audio Digital watermarking is a way to provide protection for audio files and is done by inserting the desired data, and the final task of this data is also inserted an audio file. Digital watermarking system uses statistical methods to implement histogram. Histogram is a form of data dissemination. The data retrieved is audio file format waveform (WAV), which is an audio file format native windows. Two kinds of tests done to prove the capability of this Digital watermarking, which is an objective test using Rastio Signal to Noise (SNR) and the Right Bit Rate (BRR), and subjectively by using the Mean Opinion Score (MOS). With the resulting SNR achieved and 64.2117 dB, and can produce the optimal value of BRR, which is equal to one, whereas for the subjective assessment of the average reached 4.53, or can say excellent. In this system also provided the attacks to demonstrate the quality of the audio Digital watermarking is made, the attacks Time Scale Modulation (TSM) and random cropping. And from experiments with 27 audio-owned can be seen that the system is robust against the attack, the data can survive to reach the BRR 0.73 TSM and random cropping to achieve the optimum.

Keywords: Audio, BRR, Random cropping, SNR, Time Scale Modulation, Digital watermarking.