

ABSTRACT

Technological advances have many roles that can facilitate a job or activity, although not all technological advances are aimed at positive activities, but there are only a few individuals who abuse it, such as copyright piracy cases. It often happens to the media in the form of pictures and sound, on this research will address the audio or sound media, with the purpose of copyright piracy using Audio Watermarking technique in which a host file will be inserted a data to sign the authenticity of a copyright.

MATLAB software is used to process the audio watermarking system with the method of frequency masking in which this method relies on the insertion or embedding process with audio signal is divided into 500 frames and the length of each frame is 20ms, after it is converted from time domain into frequency domain using FFT, finished embedding process then audio file saved with audio format ".mp3" then change the audio format become ".wav" as well from ".wav" to ".mp3", the modified final result of the format is analyzed in two ways, the first is heard the results before and after embedding process, second seen the result of data inserted, including the BER and CER values of the audio file.

This research gets good results during the test by changing the ".mp3" format to ".wav" with success rate through BER: 0, and CER: 0, as well as the inserted data can be recovered intact, while changing the format ".wav" to ".mp3" get the value BER: 0.5357, CER: 1, and the inserted data does not return intact, it is because when changing the format from ".mp3" to ".wav" not The process of data compression and sound quality becomes better, on the contrary when from ".wav" to ".mp3" has decreased the quality as well as the compression process.

Keyword : *Audio watermarking, convert, embedding, frequency masking*