

## ABSTRACT

The distribution of audio digital very fast considering the development of the internet and digital world that continues to advance. Of course, it brings many benefits to its users. However, not a few dangers and losses that accompany it, such as illegal duplication of audio, claims ownership, and changing the originality of a digital work. Therefore, needed a way to handle this problem. One way is by using digital watermarking. Digital audio watermarking is a way to embed a watermark information files into digital audio which aims to protect digital audio.

In this final project, audio signal is decomposed with wavelet transform to get watermark coefficients. Then, it divided into several segments before the audio is inserted watermark image. The embedded watermark is a binary image. To get optimal results of audio watermarking used adaptive tabu search algorithm in embedding process. The watermark detection process can be performed without using the original audio signal.

Results obtained audio watermarking has SNR close to the desired value of SNR (23 dB) and strong enough against low pass filter attack and AWGN noise.

Keywords: *audio watermarking, Wavelet Transform, Adaptive tabu search*