ABSTRACT

The use of technology and internet has grown rapidly that causes a lot of forgery and illegal proliferation of digital data. It needs a technology that can protect the copyright of audio data. The most common technique in copyright protection is watermarking because this technique has 3 main criterias in data security: robustness, imperceptibility, and safety. Robustness means the data should not be removed using common signal processing attacks, imperceptibility means that the result of watermarking doesn't change the quality of the original data, and safety means that it can only be accessed by an authorized person.

This research creates a scheme that can protect a copyright of audio data. The method that will be used is Fast Fourier Transform (FFT). This method changes the original audio data into frequency domain before the embedding and extraction process can be done. The watermark is placed into the most significant component of the spectrum magnitude of the original audio.

This system produce watermarked audio data that fits those three main characters so it can protect the copyright of the audio data. This technique obtains the value of SNR higher than 20 dB with BER lower than 5%.

Keywords: *Audio watermarking, FFT, Robust, Copyright*