ABSTRACT

Steganography is the art of hiding data and information so that only sender and receiver who know it. Steganography can be audio, image, or text. The advantage of this steganography is the messages do not arouse suspicions of others to ensure the security of the secret message.

Steganography can be done with any method. The method used in this research is stereo audio based Lifting Wavelet Transform (LWT) to divide the audio signal into several subband. Before the LWT process is done, audio is added bit sync to find out where the secret message is embedded. And then the process of Discrete Sine Transform (DST) to convert time domain into frequency domain. In the frequency domain is done the process of embedding the text into the audio. On the other hand, Compressive Sampling is used in secret messages before being embedded.

The optimal parameters of audio steganography system in this research were obtained by using scheme 8 with frame length 1024, threshold 0,9, alpha 0,0034, code length header 8, header bit length 14, and quantity of bits of quantization 3. The optimal parameter got value audio quality BER= 0, ODG = -3.912, SNR = 33.54, and C = 6.1523 on audio drums.wav by using MP3 64 Kbps compression attack. By using the optimal parameter is tested with various attacks obtains an average BER value of 0,2166.

Keywords : *Audio Stereo Steganography, Lifting Wavelet Transform, Discrete Sine Transform, Compressive Sampling, Bit Synchronization*