

ABSTRACT

In the era of digital computers, exchanging information has become a daily habit in society. However, exchanging information does not escape the issue of the confidentiality of messages that must be kept secret. Audio steganography is one solution to keep the message secret.

This Final Project, designing Audio Steganography using Multi Bit Spread Spectrum (SS) technique on stationary audio based on Compressive Sampling (CS). Multi Bit SS functions to encode one bit into several data bits and then insert a watermark bit in several host bits resulting from the encoding that has been done. Stationary Wavelet Transform (SWT) is used to convert time domain to frequency domain. Compressive Sampling (CS) is a sampling method in which signal acquisition and compression in the process is taken a small number of samples and randomly based on the projection transformation used. The steps to be carried out are inserting the image file into the audio host using the Multi Bit SS technique, then converting the time domain to the frequency domain using SWT, after which it produces an image file that has been hidden (stego-image) which is then extracted back into an image file. original by the receiver.

The design results using optimal parameters, namely N is 5, LN is 512, Subband is 4, JBSF is 2 and RPS is 15 and 30, showing that the designed steganography can be resistant to attack. This is done by providing signal processing attacks. After that, the BER value is 0, the SNR value exceeds 20 dB which is 31.7855 dB, the ODG value is -0.55006, the high watermark capacity is 307.6172 and the MOS value is 4.533.

Key words: *Audio Steganography, Multi Bit Spread Spectrum (SS), Stationary Wavelet Transform (SWT), Compressive Sampling (CS)*