

ABSTRACT

Steganography is the art and science of writing hidden messages or hide messages in a certain way in a carrier. Lately, steganography already very much interested, so that this technique allows the parties whom use it such as exchange of information by criminal in a prison cell. Because of that situations, we need a technique that can analyze or recognize of the secret messages called steganalysis. Steganalysis is an art and a science to detect a hidden message. Steganalysis is expected to facilitate the police, state intelligence agencies to be able to detect the secret message criminality.

This final project will explain about steganalysis WAV audio format using the Discrete Wavelet Transform and Linear Discriminant Analysis. Digital audio signals with a format Waveform Audio Format. This final project use digital audio signal with WAV format because of a good quality audio even though the cover has been inserted message. The audio which will be elaborated on methods Discrete Wavelet Transform then its wavelet subband is calculated as a characteristic and audio characteristics projected into space by Linear Discriminant Analysis as a method for determining space of characteristics and then will be found the best hyperplane and margin using Support Vector Machine with linear kernel.

The highest accuracy in this system is 88.33% that accuracy influenced from the scenario DWT level 3. The result show that the level determining many audio characteristics will produce. Based on the all scenarios, the best system performance in DCT stego audio than DWT stego audio. This is because DCT method hide messages in real signal components and this system analyzes the audio in real signal components by looking for the absolute and optimum of eigenvalues while DWT stego audio hide a message in low frequency and high frequency but in this project, the system work in low frequency and the accuracy is consistent.

Keywords: *steganalysis, DWT, LDA, SVM-Linear.*