ABSTRACT

Today's development of technologies have a very important role in the exchange of information quickly and accurately, because of that there are a lot of people use internet facilities to exchange informations, therefore data security is very important. Steganography is the art of hiding a secret message (message hiding) so that the existence of the message can not be detected by human senses.

*In this final project, a steganography application using Echo Data hiding is made, where in the insertion process echoes was formed to hide secret messages in audio. The application was made using Visual Studio 2010. The application is tested by hiding a secret messages in the form of *.bmp image format into*.wav audio format. The test results show that the message successfully inserted and Extracted with the same file size. In robustness testing, the test results show that the application is not robust to changes atau manipulateons that are performed on the stego-audio such as resampling, flip or rotate, and echo effects. However, two of the five stego-audio tested were robust to changes or manipulation in the form of requantizing.*

In the objective test results, the greatest PSNR is 24.2874 dB, which means that the wav results of the steganography process have noise, but the noise contained in the wav results are not too perceptible, this is proved by the average MOS value which above 3.5 and the highest MOS which 4.8. It's showed that the application can safely embed the message data to the audio because message or secret data inserted is could not percepted by the HAS (Human Auditory System).

Keyword: Steganografi, Echo Data hiding, Audio.