

## **ABSTRACT**

*Security system in telecommunications is very important to ensure the security of information transmission. Steganography is a technique of communication to hide the data information into the cover, so the information or the message is unknown by the parties who are not allowed. With steganography, the data cover as visible does not contain any information that has been inserted. Recent developments has been widely stated that some methods have been applied in audio steganography, but still have limitations that the message signal still disturbs the cover. Therefore, we need an optimization system by selecting the embedding point using Psychoacoustic modeling.*

*This final project has been observed that Psychoacoustic modeling can be applied to audio steganography techniques for data security by inserting an audio message into an audio cover. The process focused on embedding point which message is inserted at bandwidth of audio cover that insensitive by human ears. Bandwidth is selected and obtained by Psychoacoustic modeling. The embedding technique uses a simple method by replacing the cover signal at selected bandwidth with a secret message signal.*

*The results obtained that cover data with length 30 seconds can be inserted by audio message with maximum length is 5 seconds. Audio steganography has excellent quality with SNR >30 dB and MSE <1x10e-04, and also the secret message has SNR >10 dB, MSE <1x10e-03 and robust against AWGN.*

**Key Word : Steganography, stego audio, Psychoacoustic, bandwidth, cover, secret message.**