ABSTRACT

COMPARATIVE OF PHASE CODING AND ECHO DATA HIDING METHOD WITH RIJNDAEL ALGORITHM AS DATA SECURITY IN AUDIO STEGANOGRAPHY

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Steganography is one way to hide data / secret message into a cover media so that other people do not realize it. Steganography can be implemented on a wide range of digital media like text, images / pictures, audio and video.

The technique can be used in audio steganography are Phase Coding and Echo Data Hiding. Phase Coding Technique is a technique to insert audio messages into the media by manipulating the phase of the audio file into the cover. While Echo Hiding techniques namely steganography techniques that manipulate the echo of the cover file as a representation of the data inserted.

This final project applying both methods on the cover of an audio WAV file that was selected because a large capacity and a simple file structure that is easy to apply techniques in steganography. Then the results were analyzed to compare the advantages and disadvantages of each method by comparing the insertion process speeds, the file size that can be accommodated, the size of the audio file before and after the inserted message and the audio quality after the insertion process.

From the test results using methods known steganography Echo Data Hiding better than the method of Phase Coding in the insertion process speed and quality of the file after the insertion process the message based on the SNR value. In terms of capacity that can fit the message, the method of Echo Data Hiding a text message can contain more than the method of Phase Coding. However in case of Robustness, phase coding technique is much more resistant to compression compared with the echo data hiding.

Keywords: Steganography, Coding Phase, Echo Data Hiding, Audio Files