Abstract

This paper deals with the encoding of message bits in a cover audio carrier signal. It applies the basic concepts of audio steganography in transform domain to achieve higher efficiency in data transmission, while preserving the secrecy of the information being transmitted. The proposed model in this paper deals with the application of echo hiding of binary message bits in the carrier signal, in the transform coefficients obtained by applying 2D- discrete Haar Wavelet Transform on the cover signal. Moreover, this algorithm applies pseudorandom sequence to encode the data, which gives the method more efficiency and prevents unauthorized decoding at any moment. The application of echo hiding technique makes the stego signal more immune to noise and disturbances, during transmission through the channel network. The performance of this method is analyzed on the basis of the output SNR and PSNR values calculated for several test cases, that has been discussed later in the paper.

References
10. Sajad Shirali-Shahreza M.T. Manzuri-Shalmani “High capacity error free wavelet domain speech steganography” ICASSP 2008

Index Terms

Computer Science Security
Keywords

2D-Discrete Haar Wavelet Transform, Pseudorandom sequence, Echo Hiding.