Abstract

Communicating securely is what everyone wants. Earlier it was simply data hiding then reversible data hiding and currently its encrypted data hiding reversibly. Introducing new challenge is always as important as keeping it unreachable to the hacker. In proposed work security is enhanced by encrypting data and then embedding the encrypted form of data. Reserve Room before encryption gives an added advantage for enough space for data hiding. Haar wavelet is best suitable wavelet amongst other wavelet like symlet, bior, coiflet and contourlet, when the input image is encrypted image rather than a plain image. The quality of image has been evaluated by performance analysis like MSE, PSNR and hiding capacity on different types of color images and results were compared. Minimum errors with high SNR rate at various data hiding capacity were seen.

References


Index Terms

Computer Science

Image Processing

Keywords

Reversible data hiding, chaos encryption, LSB replacement, RSA key encryption, Haar Wavelet transform, LWT, PSNR etc.