Abstract

Internet has made so easy to transfer the large amount of data in different parts of the world. So, the security and safety of information has become the major concern. This problem has led to the development of steganography techniques. This paper deals with data hiding technique in which the secret data is embedded into the cover video. Firstly, cover video is decomposed into different frames. A single level Discrete Wavelet transform is applied on selected frame and on secret image. A private key is used during the process of encoding and decoding to provide high security. Then the Inverse Discrete Wavelet Transformation (IDWT) is applied to get the stego-video. The performance parameters like Peak Signal to Noise Ratio (PSNR) and Mean Square Error (MSE) can be calculated to determine the quality of stego video. The results show that the proposed algorithm for steganography is highly secured with good perceptual invisibility.
Secure Video Steganography based on Discrete Wavelet Transform and Arnold Transform

7. Richa K., “Video Steganography by LSB Technique using Neural Network”, Sixth International Conference on Computational Intelligence and Communication Networks 2014.

Index Terms

Computer Science Security

Keywords

Alpha Blending, Arnold Transform DWT, PSNR, Video Steganography.