As data is exchanged quickly in electronic way, information security plays a vital role in transmission and storage. Digital images are widely used in industrial purpose, so it is necessary to protect image from unauthorized access. Quasi group encryption is used to encrypt the grayscale image to provide security during transmission. Computer images are extremely data intensive and hence require large amounts of storage space. As a result, the transmission of an image from one machine to another can be very time consuming. By using image compression techniques, it is possible to remove some of the redundant information contained in images, requiring less storage space and less time to transmit. This paper is focused on selecting the most appropriate wavelet function for a given encrypted grayscale image compression. The Discrete Meyer wavelet function gives high compression ratio and the improved PSNR (peak signal to noise ratio) value for an encrypted grayscale image at decomposition level three.

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Wavelet-based Image Compression of Quasi Encrypted Grayscale Images

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Index Terms

Computer Science              Signal Processing

Keywords

Quasi-group      Psnr (peak Signal To Noise Ratio)      Wavelet Function      Compression Ratio
Data Intensive