Abstract

Transmission of image and video requires particularly large amount of bandwidth and storage space. Image compression technology is useful to overcome these problems. Various methods of compression like transform coding, predictive coding, bit plane coding are available and are used efficiently. Compression systems based on hybrid coding which combines the advantages of different methods of image compression have also been developed over the last few years. Hybrid coding of images, deals with combining various approaches to enhance the individual methods and achieve better quality reconstructed images with higher compression ratio. In this paper, a hybrid approach to image compression is discussed. A compression method using neural-network and discrete wavelet transform is presented here. This scheme combines the high compression ratio of Self organizing map neural network with the good recreation property of discrete wavelet transform (DWT). The performance of proposed method is compared with the available SOFM NN based compression technique considering standard images.
Hybrid Image Compression Method using ANN and DWT

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Index Terms

Computer Science  
Image Processing

Keywords

Artificial Neural Networks  Image compression  Self organizing feature map neural network (SOFM-NN)  DWT