Abstract

Now a day’s transmission of image and video data is gradually increasing. Compression of image data with acceptable image quality is the objective of this paper. To achieve higher Compression Ratio combination of halftone and Kekre’s Fast Codebook Generation (KFCG) Vector Quantization algorithm is used. For Vector Quantization KFCG algorithm is used to reduce time and memory space. Half toning technique is used in printing industry which is lossy
and gives one bit image, hence to achieve higher Compression Ratio 8:1. To reduce the computational complexity Small half toning operator is used. Codebook of different sizes 8, 16, 32, 64, 128 and 256 and pixel group of 2X2 size is used in this paper. Different bit map images of size 512x512 are used. For reconstruction of image Fast Inverse Half toning algorithm is used. To measure image quality measuring parameters like Mean Square Error (MSE), Peak Signal-to-Noise ratio (PSNR) and Structure Similarity Index (SSIM) are used. This is the proposed combination of compression technique to fulfill the objectives of video data streaming with low bit rate transmission which is the major constraint as well as to store of large number of half tone images for printing in encoded form.

**Reference**

on Image Compression, Vol. 7 pp. 73—81,(2009).

Index Terms

Computer Science

Wireless
Key words

Halftone
Codebook
Quantization
Kekre’s Fast Codebook Generation (KFCG)
Index
Structure Similarity Index (SSIM)