Abstract

In recent times, developing hybrid schemes for effective image compression has gained enormous popularity among researchers. This research paper presents a proposed scheme for medical image compression based on hybrid compression technique (DWT and DCT). The goal is to achieve higher compression rates by applying different compression thresholds for the
wavelet coefficients of each DWT band (LL and HH) while DCT transform is applied on (HL and LH) bands with preserving the quality of reconstructed medical image. The retained coefficients are quantized by using adaptive quantization according to the type of transformation. Finally the entropy coding (variable shift coding) is used to encode the quantization indices. Experimental results show that the coding performance can be significantly improved by the hybrid DWT-DCT algorithm.

Reference


Index Terms

Computer Science

Signal Processing
Key words

image compression     quasi lossless compression
adaptive quantization
hybrid scheme
DWT
DCT
medical image