DWT based-approach for color image compression using genetic algorithm

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Abstract

This paper describes a color image compression technique based on Discrete Wavelet Transform (DWT) and Genetic Algorithm (GA). High degree of correlation between the RGB planes of a color image is reduced by transforming them to more suitable space by using the GA. This GA would enable us to find T1T2T3 representation, in which T1 energy is more maximized than that of T2 and T3.
The result of the proposed method is compared with previous similar published methods and the former is found superior in terms of quality of the reconstructed image.
Further, proposed method is efficient in compression ability and fast in implementation.