New Efficient Method for Coding Color Images

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Abstract : In this paper a novel color image compression technique for efficient storage and delivery of data is proposed. The proposed compression technique started by RGB to YCbCr color transformation process. Secondly, the canny edge detection method is used to classify the blocks into edge and non-edge blocks. Each color component Y, Cb, and Cr compressed by discrete cosine transform (DCT) process, quantizing and coding step by step using adaptive arithmetic coding. Our technique is concerned with the compression ratio, bits per pixel and peak signal to noise ratio, and produce better results than JPEG and more recent published schemes (like, CBDCT-CABS and MHC). The provided experimental results illustrate the proposed technique which is efficient and feasible in terms of compression ratio, bits per pixel and peak signal to noise ratio.