

IMAGE COMPRESSION USING DISCRETE COSINE TRANSFORM

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Abstract

Our use and reliance on computers increasing day by day so it is becoming necessary to have storage for large amounts of data. For example, if someone is using web page or online catalog - that uses dozens or perhaps hundreds of images-needs definitely some form of image compression to store those images. In such cases if images are not compressed then amount of space required to hold such images can be large in terms of cost. Here method of image compression has been described using Discrete Cosine Transform. The image is coded before transmission and decoded after reception. The DCT works by separating images into parts of different frequencies. During the process of quantization less important frequencies are discarded. The most important frequencies that remain are used to construct the image again in the decompression process. As a result reconstructed image contains distortion but levels of distortion can be adjusted during the compression process.

Some related parameters like Mean Square error, Power Signal to Noise Ratio are calculated.

Keywords: Dct, Idct, Quantization.

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