Abstract

Given an image with N blocks of 8x8 pixels, we construct an indexing key by overlapping the N blocks into one combinational block and each block acting as one single plane inside the combinational block. Specific construction of each element inside the indexing key can have a range of alternatives based on such a common platform. These include: (i) average DCT value (ii) energy distributed in DCT domain to construct the indexing key, and (iii) DCT coefficients that can be polarized via exploiting their directional properties, and thus can be processed to construct an energy magnitude to highlight the texture of the input image. In this way, the dimension of the indexing key can be significantly reduced. In this paper we represent DCT descriptors as tools of generating indexing key in compress domain.

References


Shen, B, and Ishwar, S, Direct feature extraction from compressed images, SPIE vol. 2670, Storage & Retrieval for Image and Video Databases IV, 1996.


Index Terms

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Image Processing
Keywords
Compressed domain  DCT domain  CBIR