Abstract

In order to improve the accuracy and efficiency of the image retrieval systems vast research is going on in the direction of Content Based Image Retrieval instead of text based search of images which has got many constraints and drawbacks in the retrieval process. In this paper, we describe the novel techniques to retrieve similar images from large volume of databases.
based on contents. Feature extraction strategy of the proposed system is based on transform domain. Three different techniques are used to extract the image features using three transforms namely Kekre’s transform, Discrete Cosine transform and Hybrid wavelet transform which is constructed using combination of DCT and Kekre’s Transform. Experimental results obtained using these three approaches for 100 queries using database of 1000 bmp images. Results are obtained in two levels. Level 1 gives results for R, G and B plane separately, Level 2 combines these results by taking combination of three planes based on three different criteria. Retrieval of similar images increases as we move forward from Criterion 1 to Criterion 3. It is observed that hybrid wavelet is giving fast and better retrieval results as compare to DCT and Kekre’s transform.

Reference

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**Index Terms**

Computer Science  
Signal Processing

**Key words**

Row Mean  
Column Mean  
Row Variance
Column Variance

Kekre’s transform (KT)

DCT

Hybrid Wavelet transform (HWT)

Criterion 1

2 and 3