Abstract

This paper uses the sectorization method on DFT and Hartley transforms along with sectorization of the DFT and Hartley wavelets over 3 different color spaces namely RGB, LUV and YCbCr. A comparison and evaluation of these methods is carried out and the results are drawn based on the retrieval rates of each class of images from the database. Three different similarity measures such as Precision, Recall, Precision- Recall Crossover are used for the matching the feature vectors of the query image with that of the images in the database.
Performance Comparison of DFT and Hartley Plane Sectorization with its Wavelets across RGB, LUV and YCbCr Colour Planes in CBIR

Euclidean distance and sum of Absolute difference are used for measuring the distances between the images. The average precision-recall cross-over point plot (PRCP) and the overall average PRCP performances have been compared for all the methods.

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Index Terms

Computer Science
Image Processing

Keywords
CBIR, Wavelet, DFT, Hartley, RGB, LUV, YCbCr, Euclidean Distance, Absolute Difference

Precision Recall Cross Over Point