Content based Image Retrieval Review on its Methods and Transforms

Abstract

CBIR (content based image retrieval) is the process which mainly focuses to provide efficient retrieval of digital image from the huge collection/database of the images. As many researchers and PhD scholars are working on this topic. So in this paper many algorithms have been studied and discussed such as sectorization of DCT-DST Plane of Row wise transform, discrete sine transform sectorization for feature vector generation, FFT sectorization for feature vector generation, histogram matching, histogram bins. This paper also includes the different filtering techniques like median filter, point operator and histogram normalization techniques. It includes comparison of all the algorithms based on their performance by comparing different performance parameters such as LIRS (Length of initial string of relevant images retrieved), LSRR (Length of string to recover all relevant images) and LSRI (Longest string of relevant images retrieved), precision and recall to determine which algorithm is providing best result. Based on all comparison this paper concludes that Column wise walsh wavelet transform gives best result. It gives 40% precision values but LSRR result is more than 60%. So as per the results it is stated that hybrid approach will give better result.


Kekre, Dr HB, Sudeep D. Thepade, and Akshay Maloo. "Query by Image Content

Index Terms

Computer Science Image Processing

Keywords

CBIR Feature Vector Transform Sectorization Spatial Domain Frequency Domain Similarity Measures