Abstract

With the ever expanding database and advancement of technology in the fields of Data mining, remote sensing and management of Earth resources, Crime prevention, Weather Forecasting, E-commerce, Medical Imaging, and soon. The Content Based Image Retrieval Technique is becoming more and more indispensable and vital. The paper proposes Content Based Image Retrieval technique incorporating WBCHIR (Wavelet Based Color Histogram Image Retrieval) which utilizes features of an image like Color and Texture. The shape and shade features are extracted in the course of Wavelet Transform and Color Histogram, and the arrangement of these features is the vital the scaling and conversion of objects into an image. Now, it is being presented for the first time in our era that techniques such as Feature Extraction, segmentation and Grid, K-means module and k-nearest neighborhood module are integrated together to build the CBIR System. It is a hybrid of Global and Local Features method with K-means Clustering algorithm. Given a set of instruction images, a K-means Clustering Algorithm is applied to cluster the regions on the basis of these features. These features, which they identify as "Blobs", compose the expressions for the set of images. Each of these "blobs" is assigned an exclusive integer to serve as its identifier (analogous to a word's ASCII representation. In this paper, we present a technique for integration of Wavelet Based Color Histogram Image Retrieval (WBCHIR) using color and texture features
into Content Based Image Retrieval. The Evaluation between the images is ascertained by means of a Distance Function. The concept proposed in this paper will provide better results as compared to other retrieval methods in terms of average accuracy. Moreover, the computational steps are summarily consistent with the use of Wavelet transformation.

References

Combination of Local, Global and K-Mean using Wavelet Transform for Content Base Image Retrieval


- Structured representations in a content based image retrieval context RomainRaveaux, Jean-Christophe Burie, Jean-Marc Ogier. pp-1252-1268

Index Terms

Computer Science  Image Processing

Keywords

CBIR  K-means  DWT  Global Feature  Local Feature.