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COMPREHENSIVE SURVEY OF DIFFERENT APPROACH FOR CONTENT BASED IMAGE RETERIEVAL (CBIR)

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ABSTRACT

In this paper awavelet approach for image retrieval of content based image are presented. As we know image retrieval from database using content based image Retrieval (CBIR) is in great demand. In this method, we have shown that the LL(Low resolution) component of the decomposed image is almost similar to the original image and could be used for retrieval process using this system the complexity of extracting color information has ben reduced.the diferent approach for content based image retrievals are using wavelet,color and Texture and object correlation discussed here.

1. INTRODUCTION

With the rapid development of multimedia database the application of digital library and image search engine become more and more widely used. Content Based image Retrieval (CBIR) is a prominent area in image processing due to its diverse applications in interest, multimedia, medical image achieves and crime prevention, improved demand for image database has increased the need to store and retrieve digital image. Still no general breakthrough has been achieved with respect to large varied database with documents of differing sorts and with varying characteristics. Answers to many questions with respect to speed, semantic descriptors or objective image interpretations are still unanswered. This paper also discussed the various approach for image retrieval of content based image.

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2. TYPESET TEXT

1CBIR USING WAVELETS

We propose a technique to retrieve Wavelet base compressed image by using color information of the compressed image itself. The proposed color retrieval system is made up of two main components, the preprocessing component and the query component. The prepossessing component will prepare image before they are stored into the database. Within this component the image will be compressed color information extracted and stored into the database.

First, the image will be decomposed using wavelet transform. The decomposed image will yield 4 subbands signal (LL, LH,HL and HH) . The LL n – 1 component will be further decomposed until LL 0 depending on the level of decomposition , n. After the decomposition is done, the LLa component will be used to extract color information. Color information will be stored in the feature database in RGB histogram form and shall be used for histogram matching later in the query component.

In the query component the user is presented with an interface to query the system. The use gives a sample image to the system. Color information from the query image is the extracted and stored into RGB histograms. These histograms are then sent to the matching process to search for possible outputs in the feature database. In the matching process, Histogram intersection technique will be used. The similarities between the histogram of the query image ad those in the database are then measured. The system will rank the most similar compressed image to the candidate image according to similarity measure. After the matching process, a set of image with highest similarity are retrieved. The user is then presented with a set of thumbnail image (low- resolution version) after the user has selected the desired image, the image will be decompressed and the high-resolution version will be presented.

In this method, we have shown that the LL(Low resolution) component of the decomposed image is almost similar to the original image and could be used for retrieval process. Using this systems the complexity of extracting color information has been reduced. This is because: only the LL component of the

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decomposed image is used. Therefore, less color is used to descript the image. Using the LL component has also reduced size and noise compared to using the original image. However, the proposed system also has it drawbacks. During the query process, in few cases, matching could not be done efficiently. This is because the compressed image uses low resolution image to extract color. In the future work letter algorithm for histogram matching should be correct this problem.

2.2CBIR using color &texture feature

A color histogram refers to the probability mas s function of the image intensities this is extended for color image to capture the joint probabilities of the intensities of the thre color channels.wavelet has ben widely used in the image processing application including compression,enhancement,reconstruction & image analysis.a wavelet transformation provides a multiscale decomposition of image data.we combine the color feature & texture feature to retrieve image and compare the performance of these methods

Approach called RWF+DT-CWT+COLOR histogram in CBIR is presented.simulation result demonstrated higher performance of the proposed method compared to the DWT,RWF and DWT+RWF in terms of average precision the performance of the proposed method can be improved by applying the same low level features on region based image retrieval. We can know that when the image is simple,the performance is great,and when the image is complex the average accuracy is worse.

2.3.CBIR Using Color ,Texture and object correlation

Color and texture are one of the major visual properties used to identify objects in human and even computer vision.Some time we see more than what we view.In simple we more than what we see and this is because of our knowledge not the information in the scene.Object orientation is the feature that fills this gap in this identification and retrieval systemCo occurrence of diferent objects in image can be helpful for image identification our knowledge base maintains clusters of objects based on their occurrence.This is the major part of the knowledge where learning is used updating knowledge

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3. ACKNOWLEDGMENTS

In the first place,content based retrieval has brought large data sets.where the number of test images in atypical journal paper was well under a hundred until very recently,a state-of-the-art paper in content based retrieval reports experiments on thousands of images.Of course,the purpose is different for computer vision and content based retrieval.It is much easier to compose a general data set of arbitrary images rather than the specific ones needed in a computer vision application,but the stage has been set for more robustness.For one thing, to process a thousand images atleast demand software andcomputational method be robust.

Global features such as wavelet &histograms,have been very effective.when the image is recorded with photographic purpose it is likely that center of image means something different than the surrounding part s of the image,so using that division of picture could be of help too.

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