Abstract

In the recent world with the advances in multimedia technologies such as compression, display, and visualization technologies and the increased emphasis on multimedia application, the production of image information has resulted in large volume of images that need to be properly indexed for retrieval in future. Hence, there is a need for Content Based Image retrieval application which makes the retrieval process very efficient. Current systems generally make use of low level features like colour, texture, and shape. In this paper, a novel approach for generalized image retrieval based on semantic contents is presented. A combination of two feature extraction methods namely colour and edge histogram descriptor is proposed. The retrieval efficiency is computed and compared by using four methods such as k-means, colour histogram, edge histogram and sobel method. For colour, the histogram of images is computed and for edge, edge histogram descriptors (EHD) are found. For retrieval of images, a novel idea is developed based on greedy strategy to reduce computational complexity. The proposed system stores the content of database images automatically and query image's content is extracted during runtime and it is used to match against those in database. The result of the query is a set of images that are similar to the query image.

References
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**Index Terms**

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<th>Computer Science</th>
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**Keywords**

Content-based Image Retrieval (cbir)  Hue Saturation Value (hsv)  Local Colour Histogram (lch)
Global Colour  Histogram (gch)
Edge Histogram Descriptor (ehd)