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Patent Search

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Abstract:

In content-based image retrieval (CBIR), the user submits a query image, and the system returns all images from the databases that are similar to the submitted image. Matching images in the database, CBIR first analyses the data contained in the input image. The lower computational time and cost are always desirable in CBIR, which is characterized with lesser number of features. The major problem with the CBIR method is selection of the features. The strong feature used to characterize the image is the present invention disclosed herein is a novel content based image retrieval system with edge-based structural features comprising of: Dataset (201); Image query detection (203); Feature extraction (204); Classification (205); Retrieval (206); and Performance (207). The present invention disclosed herein uses edge detection operator to extract the edge region of an image and is followed by computation of global feature using grey level and shape information of an edge. The present invention disclosed herein uses Roberts, Sobel, Prewitt, Canny, and Log edge operators. The present disclosure's performance analysis reveals a retrieval accuracy of 99.67% with an error rate of 0.33%.

Complete Specification

Description:FIELD OF INVENTION

The present invention relates to the technical field of Computer Science Engineering.

Particularly, the present invention is related to a novel content based image retrieval system with edge-based structural features of the broader field of image processing in Computer Science Engineering.

More particularly, the present invention is related to a novel content based image retrieval system with edge-based structural features. The present invention disclosed herein uses the edge operators to extract the edge of an image without any pre-segmentation methods.

BACKGROUND & PRIOR ART

It's been ten years since then since information that can be read by computers has been created. Books, magazines, and newspapers from the past can be found online. The world's music, movies, photographs, articles, books, journals, and film libraries would be inaccessible without the use of a computer. Both groups are exerting significant effort into digitizing and building multimedia databases. The Internet has made it possible for people to study a wide variety of subjects with relative ease. The most challenging aspect of publishing content online is locating high-quality materials that are factual and reliable. Customers typically have a good idea of what they

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