Abstract

This paper depends on Content Based Image Retrieval CBIR to retrieve desired images from a large images database. It is based on extracting cascade features from image such as color, shape and texture features. The Euclidean Distance is used to measure similarity of each feature and retrieve similar images from the image database. The proposed method contains three stages: in the first stage, the HSV color histogram from query image is found and the nearest 100 images are retrieved. In the second stage the shape features are extracted from edge detection and the nearest 50 image are retrieved. In the last stage the texture feature are found based on first order features and the nearest 10 images are retrieved. In this paper a mechanism for image retrieval based on cascading approach is developed to improve image retrieval performance and reduce the computational time required to retrieve images. It is found that cascading features with Euclidean distance give about 76% precession of image retrieval.

References


Index Terms

Computer Science

Image Processing
Keywords

CBIR, Euclidean Distance, HSV color histogram, shape features, texture feature.