Abstract

Content Based Image Retrieval is a technique of automatic indexing and retrieving of images from a large data base. Visual features such as color, texture and shape are extracted to differentiate images in Content Based Image Retrieval (CBIR). Each of the features can be represented using one or more feature descriptors. These features descriptors combined with form feature vectors and are used together. During the retrieval, features and descriptors of the query are compared with the available images in the database. The images are then retrieved from database on the basis of distance of their feature vectors. At present, information of the maximum two features have been utilized for comparing the image and these methods provides the less accurate result. In our proposed work, more than two features i.e. three features are used for comparison and retrieval of image from the database. These three features are color, shape & texture features for image retrieval and provide more accurate results. These features are combined to fulfil the aspect of retrieval in image. The proposed work uses HSI color information especially Hue value, Fuzzy C-Mean algorithm for shape representation and co-occurrence matrix is used for texture feature extraction.
Content-based Image Retrieval Approach using Three Features Color, Texture and Shape

Index Terms

Computer Science  Image Processing

Keywords

Color Histogram  FCM Algorithm  GLCM  Feature Vector (FV)  CBIR.