## A CBIR TECHNIQUE FOR RETRIEVAL OF SIMILAR MRI FROM MRI DATABASE

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## Abstract

Content-Based Image Retrieval (CBIR) is a technique for retrieval of relevant images from the large pool of images and from image databases. A large number of images are generated during medical investigation procedure such as: investigation of human brain ailments using MRI. It is a complex and time prohibitive for doctors to do comparative study of similar cases. The access to similar brain images accurately helps in better judgments of the patient's treatment. Designing of a CBIR system for Brain MRI retrieval that produces fast retrieval is significant research and challenging task. In this paper a combination of segmented centroid computation based Star-like graph and fuzzy feature matching approach for CBIR is proposed.

This work emphasizes on similarity matching process consists of two steps in order to reduce the image retrieval time. In first step, algorithm scans through the entire database by comparing the image salient features for inexact similarity matching. The images with similarity measure closest to the query image are selected for further detailed comparison. In the second stage we use the available fuzzy feature-matching algorithm to identify the images those are very closely matching to that of query image. It is found to give better average precision, average recall with quick retrievals than application of fuzzy feature matching algorithm alone.

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**Keywords**: CBIR - Content-based image retrieval, Similarity measures, Fuzzy Feature Matching, MRI – Magnetic Resonance Imaging.

Subject Classification : Image Processing, CBIR.