Abstract

Medical image segmentation plays an important role in diagnosis and various medical evaluations. Detection and segmentation of Brain tumor accurately is a challenging task. Different kinds of segmentation algorithms have been proposed for image segmentation. In this paper, a method is proposed that integrates advanced K-Means clustering and marker controlled watershed segmentation algorithm for MRI images of brain. The Enhanced K-means clustering is used to produce a primary segmentation of the image before applying marker controlled watershed segmentation algorithm to it. It has been shown that proposed method is able to eliminate over segmentation problem which generally occurs in case of conservative watershed algorithm.
Implementation of a Fused Approach for Segmentation of Brain MR Images for Tumor Extraction


**Index Terms**

Computer Science  
Image Processing

**Keywords**

Medical Imaging  
Brain Tumor  
MRI  
K-means Clustering  
Marker Controlled  
Watershed Segmentation