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.

References

- Rajeshwar Dass, Priyanka, Swapna Devi (Jan-March 2012): Image Segmentation
Implementation of a Fused Approach for Segmentation of Brain MR Images for Tumor Extraction

Communication Technology Vol. 2, No. 1, (Spring 2008) 01-09.

**Index Terms**
- Computer Science
- Image Processing

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