Image segmentation of Brain MRI holds great significance in the determination of valuable functional and anatomical information of a disease like tumors. It not only advances the diagnostic techniques but also proves to be of enormous facilitation in the planning of treatment. In this research paper, we will be utilizing the bilateral filter technique to eliminate noise from the brain magnetic resonance imaging images, following by applying the improved canny edge detection algorithm for image segmentation to locate the ridges of tumor areas in them. The last step of hierarchical clustering algorithm application will aid in highlighting the affected area in the images thereby addressing the issues of clear location of tumor cells in the brain MRI images.

**References**

Image Segmentation using Canny Edge and finding the Tumor Area in Image using Hierarchical Clustering

Elsevier B.V.


18. S. Datta; M. Chakraborty. Brain Tumor Detection from Pre-Processed MR Images using SegmentationTechniques. Special Issue on 2nd National Conference-Computing,
Communication and Sensor Network


Index Terms

Computer Science

Image Processing

Keywords

Brain, MRI, Magnetic Resonance Imaging, Segmentation, Algorithm, Tumor, Highlight.