Brain Tumor Detection through MR Images: A Review of Segmentation Techniques

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Abstract

In this paper, a review on computer-based methods which defines the tumor region in the brain using MRI images is discussed. Various image processing techniques are reviewed in this paper which helps to enhance the images for the computerized detection of brain tumor. Magnetic Resonance Imaging (MRI) is mostly used to obtain medical imaging with very high quality. MRI is a very advanced technique which provides very rich information about size, shape and location of brain tumors without any need to expose the patient to a high ionization radiation. In medical imaging, segmentation is used to segment abnormal tissues from normal tissues and reliable, accurate, and automatic segmentation of these structures and tissues can results in improved diagnosis and treatment of disease. Digital Image Processing provides number of methods to study bio-medical images from different aspects. The paper focuses on to provide overview for different segmentation techniques involved in brain tumor detection.

References
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Index Terms

Computer Science Image Processing

Keywords

Magnetic resonance imaging (MRI), Image segmentation, Digital Image Processing (DIP)