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**ABSTRACT**

Traditionally, segmentation of brain MRI images is processed manually by radiologists. However, manual segmentation is high time consumption and cause unavoidable mistakes. Our project aims at detection of brain tumor by using concepts of image processing techniques.

During past few years, brain tumor segmentation in magnetic resonance imaging (MRI) has become an emergent research area in the field of medical imaging system. Brain tumor detection helps in finding the exact size and location of tumor. Image segmentation plays significant role in medical applications to extract or detect suspicious regions.

The proposed methodology comprises three phases: enhancement of the original MRI image (pre- processing), segmentation with the ABC along with FCM based image clustering method (processing), and extraction of brain tumors (post-processing).

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