Brain Segmentation Based On Region Growing Using T2-Weight MRI Image

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The most Gracious and the most Merciful

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ABSTRACT

In this new technology, there are many image acquisitions that are available, which produce an image. The scientist or doctor who uses this device as part of their diagnosis may face a problem especially with the image produce by these machine. Most of the researcher needs a data of brain for further research in brain (Kapur, 1995). Therefore, brain extraction or skull stripping is important in their research. The objectives of this project are to extract brains from non-brain tissue using region-growing technique on T2-MRI brain image, to develop and test this prototype. The scope of this prototype is T2-weighted image with axial orientation. The experiment results show the result of brain segmentation for female 85% and male 86%. In the future, this prototype need enhancement on the seed selection and multiple number of seed to produce much better result.

Keywords: Brain segmentation, region growing, T2-MRI image, axial orientation

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