Reviewer's report

Title: Automatic Segmentation of Meningioma from Non-Contrasted Brain MRI Integrating Fuzzy Clustering and Region Growing

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Reviewer: Ezzeddine Zagrouba

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In this work, FCM classifier and native region growing are combined to locate tumor regions in non-contrasted T1 and T2-weighted MR images. The crucial issue is that the paper does not well substantiate the novelty of the proposed approach. Besides, a lot of the paper is dedicated to present textbook theory (e.g. FCM, evaluation criteria, ....) and giving a reference is much sufficient. - Explanations also suffer from language problems - it takes considerable effort to understand such simple things (e.g. “The unsupervised FCM does not require training data, had been frequent used in the segmentation of MR images”, ” At the same time, the contrast-enhanced T1-weighted images (CET1) were use for manual tumor segmentation, the resulting “Ground truth (GT)” will be used for validating the results for brain tumor image extraction later.”, ....)

- Resolution of equations is extremely distorted.
- Definition of Solidity is unclear.
- I think that 36 references for such work is so much, especially that authors missed a comparative study with similar works.
- What is the used stop criterion for the region growing algorithm?
- What is the interest of Table 1 ?
- Table 3 can be efficiently replaced by curves.
- Many parameters are used (for FCM as well for RG). Influence of these parameters on final results should be discussed.