Abstract

Many medical imaging techniques help in learning human brain. Magnetic resonance imaging, is a technique which is very efficient in differentiating between soft tissues. There are some techniques that accomplish the goal of tissues detection and extraction. The main objective is to provide a reliable tool to evaluate brain, by improving tissue contrast and visualization, thus reducing workload of specialist in the area. This allows a further systematic follow-up of the evolution of tumors or its treatment. A solution to this problem is offered by semi supervised anomaly detection after spatial normalization. It makes use of normal data modeling and then a distance measure and thresholding to determine abnormality in MRI. The estimation of the probability density function is usually used to treat every image as a network of locally coherent image partitions (overlapping blocks). So a strictly concave likelihood function for estimating abnormality onto each partition have been formulated and the local estimates are fused into a globally optimal estimate that satisfies the consistency constraints. Fuzzy based approach can be defined to enhance the performance of the system by providing active learning based approach. Fuzzy clustering algorithms proposed an energy-minimization approach to the coherent local intensity clustering (CLIC), with the aim of achieving tissue clustering of abnormalities properly. This approach provides efficient system for the easy detection of abnormalities.
Abnormality Segmentation of MRI Brain Images using Fuzzy Nearest Neighbour Approach

References

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Fuzzy c-mean (FCM)   MRI   Image segmentation