

## **Comparison of 3S multi-thresholding with fuzzy c-means method**

### **ABSTRACT**

The 3S (Shrinking-Search-Space) multi-thresholding method which have been used for segmentation of medical images according to their intensities, now have been implemented and compared with FCM method in terms of segmentation quality and segmentation time as a benchmark in thresholding. The results show that 3S method produced almost the same segmentation quality or in some occasions better quality than FCM, and the computation time of 3S method is much lower than FCM. This is another superiority of this method with respect to others. Also, the performance of C-means has been compared with two other methods. This comparison shows that, C-means is not a reliable clustering algorithm and it needs several run to give us a reliable result.