Abstract

Image segmentation plays an important role in medical imaging by automating detection of false structures and other regions of interest. An image segmentation method partitions an image into multiple segments, representing an image into more meaningful, simpler and easier to analyze. Several general-purpose algorithm and techniques have been developed for image segmentation. This paper explains different segmentation techniques used in medical image analysis addressing the segmentation of abdominal and liver images as case study. Experiments are performed on abdominal and liver CT scan images and the outcomes of these segmentation techniques are discussed. Performance of the methods is presented on the basis of parameters namely, pixel values, mean and standard deviation.

References


2. S.Aksoy,“Image Segmentation”, Department of Computer Engineering, Bilkent Univ.


15. Bo Peng, Lei Zhang, and David Zhang, “A Survey of Graph Theoretical Approaches to Image Segmentation”.


2010.


29. J. Jiang, p. Trundle and J. Ren, Digital Media and Systems Research Institute, University of Bradford, “Medical Image Analysis with Artificial Neural Networks.”


Index Terms

Computer Science

Image Processing

Keywords

Segmentation, thresholding, clustering, artificial neural network, edge detection, region of interest