Abstract

Segmentation on Computed Tomography (CT) image of heart and brain can be optimally posed as Bayesian labeling in which the segment of a image is defined as the maximum a posteriori (MAP) probability estimate of the true labeling. The Simulated Annealing (SA) algorithm is used to minimize the energy function associated with MRF posterior distribution function. The goal of this thesis paper is to minimize the energy function using Gaussian distribution and get accurate segmentation by slowly minimize the energy and simultaneously reduce the pixels which have no impact on the image at rapid rate to get the segmentation quickly without degrade the image. The propose algorithm able to get more precise segmentation.
References


**Index Terms**

Computer Science  
Image Processing

**Keywords**  
Segmentation  
Computer Tomography (CT)  
Maximum a Posteriori probability (MAP)  
Markov Random Field (MRF)  
Simulated Annealing (SA) algorithm