Abstract

This paper discusses the process of developing an automated imaging system for classification of tissues in medical images obtained from typical Digital Imaging and Communication in Medicine (DICOM) format of a Computed Tomography (CT) scans. It focuses on using wavelet based multi-resolution texture analysis. The approach consist of two steps: automatic extraction of most discriminative texture features of regions of interest in CT medical images and segmentation is performed that automatically identifies the various tissues. A wavelet-based texture descriptors coupled with the implementation of a minimum distance classifier approach is carried out. Preliminary results for a 3D data set from abdomen CT scans
are presented.

References


Index Terms

Computer Science
Image Processing

Keywords

Texture Analysis
Dicom (digital Imaging And Communication In Medicine)
Multi-resolution Analysis
Wavelet Transform
Computed Tomography