Abstract

In this paper, we present an approach where we integrate spatial relations in the process of segmentation of chest radiography. In the proposed approach, spatial relations are represented as fuzzy subsets of the image space. Using this strategy, we imitate the reasoning of a physician when interpreting a medical image. The results demonstrate that the introduction of spatial relations can improve the recognition and segmentation of structures with low contrast and ill-defined boundaries.

Reference

A Fuzzy Approach to Chest Radiography Segmentation Involving Spatial Relations

detection: results of an international multicenter trial. European Society of Radiology, 18, 1831-1839.

Index Terms

Computer Science Image Processing
Key words

Chest radiography

Spatial relations

Fuzzy sets