Abstract

Image segmentation is vital part for any pattern recognition applications like medical imagine for disease detection, biometric recognition etc. Accurate image segmentation leads to accurate method for particular application purpose. In this paper, novel robust and efficient segmentation method introduced for breast cancer image segmentation for early detection of disease. Our main research is to present framework for automatic and accurate diagnostic method for early detection of breast cancer. For any detection process, there are three main phases such as segmentation, feature extraction and detection (recognition). Feature extraction and detection is out of scope of this paper. This paper is focusing and evaluating the new proposed segmentation method. Before segmentation, we first performed the preprocessing step in order to remove the internal noises and getting smoother image. In preprocessing, first image is resized to 256 * 256 in standard size, and then RGB image is converted to grayscale. Grayscale image is filtered using Laplacian and average filters for noise removal. The preprocessed image is given input to segmentation method. Segmentation method proposed is this paper is based on existing region growing method. For breast cancer image segmentation, improved region
growing method is introduced in this paper. This improved segmentation method considering constrain of orientation along with existing intensity constrain.

References


Index Terms

Computer Science Image Processing
Keywords