Abstract

Breast cancer is the most leading cause of death in women nowadays. Screening mammography is currently the best available radiological technique for early detection of breast cancer. The detection of breast cancer is disturbed due to the existence of artifacts which reduce the rate of accuracy. For this reason, the pre-processing of mammogram images is very important in the process of breast cancer analysis because it reduces the number of false positives. This paper discusses about two existing filtering techniques and compares it with the results of a proposed filtering method. It is used to solve the noise removal problems and separate the background region from the breast profile region using an automatic thresholding technique. The results are evaluated on the pre-processing method on a set of images obtained from MIAS database. Thus this preparation phase improves the image quality and accentuates the CAD results more accurately.


10. Indra Kanta Maitra, Sanjay Nag, Samir Kumar Bandyopadhyay. 2011. Technique for preprocessing of digital mammogram, computer methods and program and medicine.


Index Terms

Computer Science

Image Processing
Keywords

Breast Cancer Detection, Mammogram images, pre-processing, image de-noising, filtering, breast contour detection, pectoral muscle extraction, Inverse Daubechies wavelet transform, non-linear diffusion.