

A Promising MATLAB Assisted Image Segmentation for Detecting Breast Cancer

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Breast cancer is the most common cancer among American women; about 1 in 8 (12%) women in the U.S. will develop invasive breast cancer during their lifetime; and more dangerously, breast cancer is the second leading cause of cancer death in women. Mammography, an imaging technique, is used in most breast cancer detection method. A typical mammogram has poor contrast; as a result, doctors often overlook microcalcifications while using mammograms. Therefore, mammograms easily lead to wrong diagnosis. In this study, we introduce an image processing technique using MATLAB to segment mammograms. The proposed technique has potential to accurately encircle the suspicious regions in mammograms, because the suspicious regions are converted into equivalent 8-bit digital values to analysis. Mammograms from the University of South Carolina breast repository are used in this study. Preliminary experimental results show that the proposed method segments suspicious regions with more than 99% accuracy.