Pectoral Muscle removal and Detection of masses in Digital Mammogram using CCL

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Abstract

A mammogram is a radiograph of the breast tissue. It is an effective non-invasive means of examining the breast, commonly searching for breast cancer. Cancer is not preventable, but early detection leads to a much higher chance of recovery and lowers the mortality rate. Due to the high volume of images to be analyzed by radiologists, and since senior radiologists are rare, the accuracy rate tends to decrease. This is reflected in the high percentage of unnecessary biopsies that are performed and many deaths caused by late detection or poor diagnosis. This paper proposes a computer aided diagnosis system for detecting masses in mammograms using connected component labeling (CCL). This paper also addresses the problem of eliminating and pectoral muscles from the mammogram before the detection process so that further processing is confined to the breast region alone.

Reference


Index Terms

Computer Science

Computer Vision
Key words

Digital mammogram
morphological reconstruction
blur filter
connected component labeling
segmentation
mass detection