

The detection of breast's microcalcifications using the image processing technique

Saturday, 13 November 2021 14:35 (15 minutes)

Due to the increase in the number of mammograms performed in recent years it's still difficult for expert radiologists to provide accurate and consistent analyses. Over the past 20 years, diagnostic support tools have taken a remarkable place in the medical and research sector. Several research studies have been developed either to automatically detect diseases (micro-calcifications or masses) or to provide a second opinion about the lesion detected through computer-assisted diagnostic systems.

micro calcifications clusters in mammograms can be considered by early signs of breast cancer. However, their detection is considered as a very difficult task due to various factors such as :

- wide variety of breast composition
- breast anatomy with high texture
- impalpable size of micro calcifications in some cases
- low contrast in mammography.

In this paper, we work on the detection of breast's micro calcifications by using an image processing technique. We obtained satisfactory results, the proposed method was tested on the basis of MIAS breast cancer data.

key-words: breast cancer , image processing, microcalcifications, detection, medical image

Topics

Session D. Biomedical optics and sensors technology

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Session Classification: Saturday Session