

Contrast Enhancement of Masses in Mammograms Using Multiscale Morphology

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Abstract : Mammography is widely used technique for breast cancer screening. There are various other techniques for breast cancer screening but mammography is the most reliable and effective technique. The images obtained through mammography are of low contrast which causes problem for the radiologists to interpret. Hence, a high quality image is mandatory for the processing of the image for extracting any kind of information from it. Many contrast enhancement algorithms have been developed over the years. In the present work, an efficient morphology based technique is proposed for contrast enhancement of masses in mammographic images. The proposed method is based on Multiscale Morphology and it takes into consideration the scale of the structuring element. The proposed method is compared with other state-of-the-art techniques. The experimental results show that the proposed method is better both qualitatively and quantitatively than the other standard contrast enhancement techniques.

Keywords : enhancement, mammography, multi-scale, mathematical morphology

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