Hierarchical-Based Mass Detection for Digital Mammogram

張玉成、林國祥

E-mail: 363570@mail.dyu.edu.tw

ABSTRACT

In this thesis, we proposed a mass detection method based on texture analysis and neural classifier. The proposed mass detection method is composed of two parts: ROI selection, feature extraction, and neural classifier. ROI selection is used to reduce the computational complexity of the proposed scheme. In the texture analysis, the intensity and texture information extracted from spatial and wavelet domains are utilized to find the candidates of mass regions. These texture features are extracted and combined with a supervised neural network to be classifier. The experimental result shows that the average recall rate of our proposed scheme is more than 86%. The result demonstrates that our proposed method can achieve mass detection.

Keywords : mass detection、texture analysis、neural classifier

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