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Early Detection of Breast Cancer in Digital Mammograms Based on Image Processing and Artificial Intelligence

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Abstract : A method of artificial intelligence using digital mammograms data has been proposed in this paper for detection of breast cancer. Many researchers have developed techniques for the early detection of breast cancer; the early diagnosis helps to save many lives. The detection of breast cancer through mammography is effective method which detects the cancer before it is felt and increases the survival rate. In this paper, we have purposed image processing technique for enhancing the image to detect the graphical table data and markings. Texture features based on Gray-Level Co-Occurrence Matrix and intensity based features are extracted from the selected region. For classification purpose, neural network based supervised classifier system has been used which can discriminate between benign and malignant. Hence, 68 digital mammograms have been used to train the classifier. The obtained result proved that automated detection of breast cancer is beneficial for early diagnosis and increases the survival rates of breast cancer patients. The proposed system will help radiologist in the better interpretation of breast cancer.

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