An Automated Mass Classification System in Digital Mammograms using Contourlet Transform and Support Vector Machine

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Authors:
J.S.Leena Jasmine
Dr.S.Baskaran
Dr.A.Govardhan

Abstract

In this paper, an efficient automated mass classification system for breast cancer in digitized mammograms using NonSubsampled Contourlet Transform (NSCT) and Support Vector
An Automated Mass Classification System in Digital Mammograms using Contourlet Transform and Support Vector Machine (SVM) is presented. The classification of masses is achieved by extracting the mass features from the contourlet coefficients of the image and the outcomes are used as an input to the SVM classifier for classification. The system classifies the mammogram images as normal or abnormal, and the abnormal severity as benign or malignant. The evaluation of the system is carried out using mammography image analysis society (MIAS) database. The experimental result shows that the proposed method provides improved classification rate.

Reference


**Index Terms**

Computer Science

Signal Processing
Key words

Mammogram  Mass classification  Benign

Malignant

NSCT

SVM