

AUTOMATED EVALUATION OF BREAST CANCER DETECTION USING SVM CLASSIFIER

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ABSTRACT

Breast cancer in females is the most common cancer diseases and leading cause of death. In the recent years, Computer Aided Diagnosis (CAD) is very useful for detection of breast cancer. Mammography can be used as an efficient tool for breast cancer diagnosis. A computer based diagnosis and classification system can reduce unnecessary biopsy. This paper presents the tumor detection algorithm from mammogram, this study shows the outcome of applying image processing morphological operation on mammogram breast cancer image, Since micro calcification clusters are primary indicators of malignant types of breast cancer, its detection is important to prevent and treat the disease. This paper proposes a method for detection of micro calcification clusters in mammograms using sequential Difference of Gaussian filters (DoG), and Gaussian filters. These regions are classified by SVM classifier using the most dominant features which are extracted from CSLBP features and DoG features. The proposed method was tested on 75 mammographic images, from the mini-MIAS database. The methodology achieved a accuracy of 89.33%.

KEYWORDS: Region of Interest, Difference of Gaussian, Gaussian, Center Symmetric Local Binary Pattern, SVM Classifier