Breast cancer is a leading cause of cancer type for death among women in most of popular countries, breast cancer detection is important and challenging role in worldwide to save women’s life. Due to inexperience to detect cancer, the doctors and radio logistic can miss the abnormality, which leads to death. Mammography is the most used method for breast cancer detection used by the radiologists. In this experiment, the MIAS (Mammogram Image Analysis Society) database is used and the MIAS database consists of normal and abnormal type of 322 mammograms. The pre-processing is most important step to capture quality mammogram image for next study and processing in mammogram analysis. Texture analysis plays important role to identify normal and abnormal types. Texture feature extraction can be done by local binary patterns (LBP) operator and by using LBP we can consider only sign parameters, it may loss the some texture information. The local binary pattern is a rotation invariant approach for the texture analysis. In this experiment famous completed LBP (CLBP) method used for extracting texture features. Completed LBP considering the sign, magnitude and centre gray level values. By using the joint or hybrid distributions combine CLBP_Sign, CLBP_Magnitude
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and CLBP_Center gray level values. LBP is one type of Completed LBP for texture analysis, advantage of CLBP is rotation invariant. Finally extracted texture features can be trained and classified by using the SVM classifier for identifying the normal and abnormal cancer type.

References


Index Terms

Computer Science

Information Sciences

Keywords

Breast Cancer; Mammogram; Pre-processing; Rotation invariant; CLBP; SVM Classification