Analysis Breast Cancer Patients Diagnosis Using Logistic Regression and Support Vector Machine (SVM) Based on Mamography Results

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ABSTRAK

Breast cancer is a type of cancer is often discovered by most women. Breast cancer in Indonesia is the first rank based on hospitalized patients throughout the hospital. Early diagnosis of the breast cancer is an effort to minimize the malignant cancer by mammography examination. This research will classify diagnosis of breast cancer who benign and malignant and to analyze the factors that influence breast cancer using logistic regression and support vector machine (SVM). Classification using binary logistic regression produces the classification accuracy of 88.72%. where the factors that influence malignant breast cancer that is intermediate Findings and BIRADS. While using the variable selection L1-Norm SVM, all predictor variables that are used affect the malignant breast cancer with the largest contribution is intermediate Findings, then BIRADS, Suspicious for malignancy, abnormal location, and age with the maximum classification accuracy of 94.34%.

Keyword: Classification, Logistic Regression, SVM, Breast Cancer, Mammography
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