Two Level Diagnosis of Breast Cancer using Data Mining

Volume 89 - Number 18
Year of Publication: 2014

Authors:
Rajkamal Kaur Grewal
Babita Pandey

10.5120/15735-4656

Abstract

Breast Cancer is a dreadful disease. Mostly women affected with breast cancer disease. Mainly problem in medical science is to diagnosis of breast cancer at early stage. So the early detection of breast cancer is important for saving life. In this work, develop method for diagnosis of breast cancer at two levels. At the first level diagnosis is based Wisconsin Breast Cancer dataset (pathological test result) and classified into malignant and benign class. At the second level diagnosis based on pathological and physiological parameters of malignant breast cancer dataset and classified into five breast cancer disease as: Ductal Carcinoma in Situ(DCIS), Lobular Carcinoma in Situ(LCIS), Invasive Ductal Carcinoma(IDC), Invasive Lobular Carcinoma(ILC) and Mucinous Carcinoma(MC). In this paper evaluate the performance based on correct and incorrect element of data classification using J48 classification algorithm. The experiment result shows that classification accuracy, sensitivity and specificity of J48 is good.

References

Two Level Diagnosis of Breast Cancer using Data Mining

- Breast Cytology. Dr Appha Tsui Royal Mebourne Hospital 2008.
- Torill Squer, Department of Pathology, Oslo University Hospital.
- https://www.breastcancer.org/symptoms/types

Index Terms
Computer Science
Data Mining
Keywords
Breast cancer  J48 decision tree  WEKA  Classification  ROC Curve.