

Accepted Manuscript

Title: An empirical study of supervised learning methods for Breast Cancer Diseases

Authors: S. Sivakumar, Soumya Ranjan Nayak, S. Vidyanandini, J. Ashok Kumar, G. Palai



PII: S0030-4026(18)31262-2
DOI: <https://doi.org/10.1016/j.ijleo.2018.08.112>
Reference: IJLEO 61409

To appear in:

Received date: 30-5-2018
Revised date: 24-8-2018
Accepted date: 26-8-2018

Please cite this article as: S. S, Nayak SR, S. V, Kumar JA, Palai G, An empirical study of supervised learning methods for Breast Cancer Diseases, *Optik* (2018), <https://doi.org/10.1016/j.ijleo.2018.08.112>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

An empirical study of supervised learning methods for Breast Cancer Diseases

S. Sivakumar^a, Soumya Ranjan Nayak^a, S.Vidyanandini^b, J. Ashok Kumar ^c, G. Palai^{d*}

^aDepartment of CSE, KoneruLakshmaiah Education Foundation, Vaddeswaram-522502, India.

^bDepartment of Mathematics, SRM Institute of Science and Technology, Chennai-603202, India.

^cDepartment of Information Science and Technology, Anna University, Chennai-600025.

^dDepartment of Electronics and Communication Engineering, Gandhi Institute of Technological Advancement (GITA), Bhubaneswar-752054, India.

Highlights

- 1. Introducing a MMDBM algorithm for supervised learning methods.
- 2. MMDBM algorithm achieves high level accuracy than other supervised learning methods.

ABSTRACT

Touch-and-go issues related to medic-able of breast cancer diseases is a matter of disquiet globally pertaining to current research scenario, nevertheless image processing techniques like Artificial Neural Network (ANN) and decision Tree algorithm have been used extensively for identifying breast cancer in patients. Realizing the aforementioned after math, the current research delivers the results of an empirical study and comparative analysis of supervised learning strategies which utilizes four different types of datasets that culminate in the proposition of a classifier, called MMDBM (Mixed Mode Database Miner) as one of the best classifiers among 19 supervised learning techniques. The proposed classifier has affirms a higher rate of accuracy in detecting breast cancer cases from the given datasets.

Keywords: Breast cancer; MMDBM; Artificial Neural Network; Decision Tree.

1. Introduction

Nonetheless global concurs that breast cancer is a deadliest disease now-a-days; several algorithms' have been exhibiting as exhilarating result with respect to the detection of the same through image classification routine. Before going to divulge the presented work in this paper, the manuscript wants to disclose similar sorts of work vis-à-vis detection of cancer

Download English Version:

<https://daneshyari.com/en/article/10146881>

Download Persian Version:

<https://daneshyari.com/article/10146881>

[Daneshyari.com](https://daneshyari.com)