

BREAST CANCER DETECTION USING WBCD

Kunal Prasad¹, Mahendra Kanojia², Brian Dsouza³, Niketa Gandhi⁴

¹ Department of Computer Science, Sheth L.U.J. and Sir M.V. College, Mumbai, Maharashtra, India.

Email: kunalprasad91@gmail.com

² JJT University, Jhunjhunu, Rajasthan, India.

Email: kgkmahendra@gmail.com

³ Department of Computer Science, Mithibai College, Mumbai, Maharashtra, India.

Email: dsouzabrian18@yahoo.in

⁴ Machine Intelligence Research Labs (MIR Labs), Auburn, WA, USA.

Email: niketa@gmail.com

ABSTRACT

Cancer is a serious disease caused by the abnormal growth of cells. Early detection of cancer helps in diagnosis and complete cure of the disease. Research has been carried on a large scale to detect cancer using information technology. Machine Learning techniques helps to make a system able to learn. Machine learning technique is used in various sectors such as health, finance, education, defence etc. Researchers are in search of best analysis mechanism for bio-medical data with information technology. This paper discusses some machine learning techniques used to detect cancer tissues in the breast. Breast cancer tumours are of two types benign and malignant. Machine learning techniques are an efficient way to detect the early stage of cancer. This paper aims to provide aid to all researchers by giving them an insight into various machine-learning algorithms and the best parameters to detect the malignant in the breast. These algorithms can be implemented to detect cancer at the micro level. level. It gives the guidelines for the implementation of the algorithms on Wisconsin Breast Cancer Dataset (WBCD) for cancer detection. The study reports the comparative study of the algorithms to achieve high accuracy.

KEYWORDS — *artificial neural network, breast cancer, machine learning, support vector machine, Wisconsin breast cancer dataset.*