IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 10, May 2023

A Review on Multiple Cancer Diagnosis using Machine Learning

Dr. Prof. Manisha Pise[1], Shreeya Gondhalekar[2], Mrunmayai Linge[3], Rohit Madderlawar[4], Karan Kalaskar[5]

Professor, Department of Computer Science & Engineering[1]
Students, Department of Computer Science & Engineering[2,3,4,5]
Rajiv Gandhi College of Engineering, Research and Technology, Chandrapur, Maharashtra, India.

Abstract: *Cancer is a fatal illness that is typically triggered by the co-existence of several illnesses and genetic defects. Cancer cells are aberrant areas of the human body that are frequently fatal to specific body sections. It is essential to swiftly and correctly diagnose the condition in order to recognise what might be used to treat cancer at an early stage, frequently referred to as a tumour. Although the approaches taken to address these problems differ.The major reasons of mortality include convoluted histories, inaccurate diagnosis, and inadequate care. In this study, current advances in the detection of cancers using machine learning techniques for the breast, brain, and lung will be reviewed, evaluated, categorised, and discussed.*

The report concludes Cancer detection and therapy are aided by the ways in which machine learning approaches employ supervised, unmonitored, and deep learning. The outcomes of several cutting-edge methodologies are bundled with metrics for accuracy, sensitivity, specificity, and false positives. On benchmark data sets, metrics are contrasted. The challenges of prospective future employment are also covered.

Keywords: Artificial-Intelligence, Medical Image Analysis, Cancer diagnosis, Neural-network, Machine-Learning.

REFERENCES

[1]. Jaiman, H. (2020). Survey on lung cancer detection using machine learning. International Journal for Research in Applied Science and Engineering Technology, 8(6), 1970-1974. doi:10.22214/ijraset.2020.6323

[2]. Cawley, J. C., Burns, G. F., & Hayhoe, F. G. (2012). undefined. Springer Science & Business Media.

[3]. Gross, L. (n.d.). undefined. Novartis Foundation Symposia, 76-104. doi:10.1002/9780470718902.ch9

[4]. Heidari, A. (2018). undefined. Theranostics of Respiratory & Skin Diseases, 1(1). doi:10.32474/trsd.2018.01.000102. The nature of leukaemia, cytology, cytochemistry and the morphological classification of acute leukaemia. (2017). Leukaemia Diagnosis, 1-68. doi:10.1002/9781119210511.ch1 undefined. (2011). Leukaemia

[5]. Diagnosis, 377-382. doi:10.1002/9781444318470.app1 Yin, T. (2015). Advanced Ultrawideband imaging algorithms for breast cancer detection.

[6]. Meenalochini, G., & Ramkumar, S. (2020). Survey of machine learning algorithms for breast cancer detection using mammogram images. Materials Today: Proceedings. doi:10.1016/j.matpr.2020.08.543

[7]. S., M. (2020). Survey paper on fraud detection in Medicare using machine learning. International Journal of Psychosocial Rehabilitation, 24(5), 4170-4174. doi:10.37200/ijpr/v24i5/pr2020130

[8]. Saba, T. (2020). Recent advancement in cancer detection using machine learning: Systematic survey of decades, comparisons and challenges. Journal of Infection and Public Health, 13(9), 1274-1289. doi:10.1016/j.jiph.2020.06.033

[9]. T, A. (2020). A survey on building an effective intrusion detection system (IDS) using machine learning techniques, challenges and datasets. International Journal for Research in Applied Science and Engineering Technology, 8(7), 1473-1478. doi:10.22214/ijraset.2020.30598

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 10, May 2023

[10]. Cancer detection cancer detection - Google search. (n.d.). Retrieved from https://www.google.com/search?q=CANCER+DETECTIONCANCER+DETECTION&hl=enUS&sxsrf=ALeKk02nhVWUzSgMjMl2fIxuO5RBA3YPKw:1612966527390&source=lnms&tbm=isch&sa=X&ved=2ahUKEwi6-ZjHwN_uAhVwVBUIHS2eA4Q_AUoAXoECBMQAw&biw=1337&bih=586
[11]. https://www.who.int/cancer/prevention/diagnosis-screening/breast-cancer/en/
[12]. https://towardsdatascience.com/buildinga-simple-machine-learning-model-onbreast-cancer-data-eca4b3b99fa3
[13]. Original data Set:http://archive.ics.uci.edu/ml/datasets/breast+cancer+wisconsin+%28diagnostic% 29
[14]. Confusion Matrix:https://tatwan.github.io/How-To-Plot-AConfusion-Matrix- In-Python/
[15]. https://seaborn.pydata.org/tutorial/axis_grids.html
[16]. https://seaborn.pydata.org/generated/seaborn.pairplot.html
[17]. https://seaborn.pydata.org/generated/seaborn.heatmap.html