IJARSCT



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

Volume 3, Issue 1, January 2023

A Review on a Machine Learning Approach to Skin Cancer Detection

Manoj Kumar M K¹, Dr. Manjunath H R², Shruthi C S³, Vaishnavi P S⁴, Chandan H⁵

Associate Professor, Department of Information Science and Engineering²
Students Department of Information Science and Engineering^{1,3,4,5}
Alva's Institute of Engineering and Technology, Mijar, Mangalore, Karnataka, India

Abstract: Skin cancer, one of the most common cancers worldwide, accounts for around one-third of all diagnosis. The main cause of skin cancer is unrepaired DNA breaks in skin cells, which result in genetic mistakes or skin mutations. The importance of early detection of skin cancer symptoms cannot be overstated given the rising incidence, high mortality rate, and expensive medical treatments. Researchers have created several early skin cancer screening methods due to how hazardous these problems are. Skin cancer is identified and benign skin cancer and melanoma are distinguished using the lesion's features, such as its symmetry, colour, size, and form. Dermatologists make a diagnosis based on the layer-by-layer arrangement of skin lesions. CNN was superior to even board-certified dermatologists. Additionally, methods that enlist mechanical aid to detect cancer are more successful. Artificial intelligence that organises information and generates decision-making processes in a manner like that of the human brain.

Keywords: DNA, mutation, mortality, benign, melanoma.

V. REFERENCES

- [1]. Arslan Javaid, Muhammad Sadiq, Faraz Akra m, "Skin Cancer Classification Using Image Processing and Machine Learning", IEEE,2021
- [2]. Jaisakthi, Seetharani Murugaiyan, Palaniappan Mirunalini, and Chandrabose Aravindan. "Automated skin lesion segmentation of dermoscopic images using Grab Cut and k-means algorithms." IET Computer Vision 12, no. 8 (2018): 1088- 1095.
- [3]. Praveen Banasode, "A Melanoma Skin Cancer Detection Using Machine Learning Technique: Support Vector Machine" IOP Conference Series: Materials ScienceandEngineering,2021
- [4]. MA. Ahmed Thaajwer, UA. Piumi Ishanka, "Melanoma Skin Cancer Detection using Image Processing and Machine Learning Techniques", 2020.
- [5]. M Gaana, Sheweta Gupta, Narayana Swamy, "Diagnosis of Skin Cancer Melanoma using Machine Learning", Preprint Research Paper, 2nd July 2019
- [6]. S. Mustafa and A. Kimura, "A SVM-based diagnosis of melanoma using only useful image features," 2018 International Workshop on Advanced Image Technology (IWAIT), Chiang Mai, 2018
- [7]. Masood, Ammara & Al-Jumaily, Adel., "Computer Aided Diagnostic Support System for Skin Cancer: A Review of Techniques and Algorithms", International journal of biomedical imaging.
- [8]. Shalu and A. Kamboj, "A Color-Based Approach for Melanoma Skin Cancer Detection," 2018 First International Conference on Secure Cyber Computing and Communication (ICSCC), Jalandhar, India, 2018, pp.
- [9]. Shi Wang, Melika Hamian. "Skin Cancer Detection Based On Extreme Learning Machine and a Developed Version Of Thermal Exchange Optimization", ComputationalIntelligence and Neuroscience/2021/Article
- [10]. M, Vijayalakshmi. (2019). Melanoma Skin Cancer Detection using Image Processing and Machine Learning. International Journal of Trend in Scientific Research and Development. Volume-3

DOI: 10.48175/IJARSCT-7826