

## ABSTRACT

Skin cancer cases around the world have been increasing throughout the last decade. It is a major public health issue around the world. According to the World Health organization (WHO), 3 million cases of skin cancer are reported worldwide each year. The early detection of the disease is very important to increase patient prognostics. over the past ten years, there has been an increase in the usage of Computer-Aided Diagnosis (CAD) devices for early detection of skin cancer. over the past years, skin cancer detection has been automated with AI concepts and image processing using the infected skin images. Deep learning models have recently shown promise in a variety of medical image processing tasks. An attempt has been made in our work to build a deep learning model using Convolution Neural Network (CNN) in Python for early detection of the skin cancer using the skin images. The model is designed using various predominant features of skin cancer images for prediction. The model implements three different hidden layers with the hybrid combination of activation functions to achieve the accuracy closer to 95%. The model has the ability to make accurate predictions for unseen data values. The work implemented is expected to be helpful model in the early detection of skin cancer in the field of medicine and healthcare.

**Keywords:** World Health Organization (WHO), Computer Aided Diagnosis, Deep Learning, Convolutional Neural Network (CNN).