

# **DETECTION OF SKIN DISEASES BASED ON SKIN LESION IMAGES**

## **ABSTRACT**

The largest organ of our human body is skin and skin cancer is the most predominant type of cancer that influences millions of people per annum. Skin cancer represents one of the most prevalent forms of cancer worldwide, with its incidence steadily rising over the past decades. The survival rate of patients decreases steeply if cancer is not detected in early stages. Diagnosis of skin cancer relies on clinical examination, dermoscopy, and histopathological assessment through skin biopsy. Early detection is paramount for favourable prognosis and entails regular skin examinations, self-skin checks, and professional evaluations by dermatologists. However, early detection of cancer is a very strenuous and costly process. Skin cancer detection poses a significant challenge in clinical practice due to the complexity and variability of lesions. Deep learning techniques have emerged as promising tools for automated skin cancer detection, leveraging convolutional neural networks (CNNs) and advanced image processing algorithms. The skin cancer dataset consists of types of malignant skin cancer datasets. According to researchers in earlier stages, it is hard to detect due to minute differences compared to normal skin lesions. Therefore, the identification of cancerous skin lesions in the early stages is a difficult matter. In this process, we are going to discuss various technologies that can be used for skin cancer detection and classification and their results. Thus, this work provides a thorough overview of the application of deep learning techniques in skin cancer detection, including data acquisition, pre-processing, model development, evaluation metrics, and future directions. The deep learning algorithm is used to identify skin cancer disease. It will help to easily identify earlier stages of skin cancer.

**Signature of Student**

**Signature of Guide**

**Name of Student** \_\_\_\_\_

**Name of Internal Guide:** \_\_\_\_\_

**R.no.** \_\_\_\_\_

**Designation** \_\_\_\_\_

**Branch** \_\_\_\_\_ **(Full Time)**

