



**FINAL YEAR PROJECT REPORT**

**SKIN DISEASE DETECTION USING DEEP  
CONVOLUTIONAL NEURAL NETWORK**

**In fulfillment of the requirement  
For degree of  
BS (COMPUTER SCIENCES)**

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**DECLARATION**

We hereby declare that this project report is based on our original work except for citations and quotations which have been duly acknowledged. We also declare that it has not been previously and concurrently submitted for any other degree or award at Bahria University or other institutions.

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## SKIN DISEASE DETECTION USING DEEP CONVOLUTIONAL NEURAL NETWORK

### ABSTRACT

The objective of this project is that the system will be able to analyse, detect and classify skin diseases. This report explores image classification methods used for the classification of five major types of skin diseases and discussed different stages involved in image processing like the data augmentation stage that include image pre-processing, segmentation of images and feature extraction. Finally write and implement algorithms and code using python.

This project uses the Deep Convolutional Neural Network technique algorithms for image processing. Deep Convolutional Neural Network provides features extraction and detection and this is main advantage of DCNN. Architecture of deep convolutional neural network are discussed, different convolutional layers and their working is tested by applying different filter sizes. Finalize our model after setting suitable number of layers and filters and proper trials and error.

Collect image dataset from authentic site and apply pre-processing and proper data augmentation. In the process data segmentation, filtering, resizing and features extraction are also performed. Than determination of proper classification technique, such as learning rate, batch size, number of epochs, and optimizer's type with an objective to made model better and better, and finally assessing the overall accuracy. In this method, the inputs are images of a specific skin disease as object. This system is specially created to help out dermatologists for accurate and quick predictions. Recommendations for future development and conclusions are also included in the report.

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