



**PROJECT REPORT**  
**COMPARATIVE ANALYSIS OF EFFICIENTNET AND**  
**RESNET MODELS IN THE CLASSIFICATION OF SKIN**  
**CANCER**

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## ABSTRACT

*Skin cancer get classified as one of the most common types of cancer cause to death. There are some types of skin cancer as: basal cell carcinoma (BCC), melanoma (MEL), and others. This cancer may have different symptoms depending on the type of skin cancer, but the most common signs include changes in the size, shape, or color of a mole or skin. The progress in machine learning has been increasing, mainly on deep learning and artificial intelligence. In the recent past deep learning has been developed for medical research. In the latest papers, algorithms that have been applied for medical research are pre-trained models. In this research, the author compares the pre-trained EfficientNet and ResNet-50 for classification of skin cancer on the HAM10000 dataset to find out which is the best for classifying skin cancer and what is the best pre-trained model for skin cancer classification. This study aims to find the pre-trained EfficientNet and ResNet-50 models for accurate and efficient for skin cancer classification. In this experiment the results obtained were: that the highest accuracy on test was achieved by EfficientNet B7 on 88.41% accuracy and the lowest accuracy on test was achieved by ResNet 50 on 83.42% accuracy.*

*Keyword: skin cancer, Pre-trained, EfficientNet, ResNet-50*

