

# **Skin Cancer Detection Using Image Processing**

## **1.1 BACKGROUND STUDY**

Skin Cancer is found in various types such as Melanoma, Basal and Squamous cell Carcinoma, among which Melanoma is the most common and unpredictable. Detection of Melanoma cancer in early stage can be helpful so as to treat it and prevent it from spreading to other parts of the body. Technology has and is advancing at a very high rate. Originally phones were only limited to phones calls only but in today's world we have smart-phones and laptops that have cameras embedded in them so as to enables us take pictures and record videos. We can exploit this technology to our advantage and through Artificial Intelligence, solve real world problems. Machine learning tools such as computer vision can play an important role in Medical Image Diagnosis. The idea is to use computer vision and image processing to analyze and develop a simple Convolutionary neural network that will be trained, tested and deployed .

Currently the formal diagnosis for skin cancer detection is Biopsy method. A biopsy is a method to remove a piece of tissue or a sample of cells from patient body . However, it is an uncomfortable and painful method since a piece of tissue from the patient's body has to be extracted and taken for analysis. It is time consuming for patients and doctors because of the testing time. It is expensive and in countries like Kenya few hospitals have the capacity to offer it. MY proposed method will much more efficient. No tissue will be taken from the skin meaning there won't be any form of skin damage or pain, it will not be expensive since you can do the diagnosis right from the comfort of your device. Results will not take forever and this will be the perfect alternative to biopsy.

## **Key words**

skin cancer Biopsy method CNN machine learning

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