**SKIN CANCER CLASSIFICATION**

**ABSTRACT**

Skin Cancer Classification is a web application. Skin cancer is a very big health issue in today‟s fast growing population not only for old age people but for all age groups. Skin Cancer is the most common human malignancy, is primarily diagnosed visually, beginning withan initial clinical screening and followed potentially by dermoscopic analysis, a biopsy and histopathological examination. Automated classification of skin lesions using images is a challenging task owing to the fine-grained variability in the appearance of skin lesions. So, this web application helps the to identify that the person is suffering from cancer or not and also predicts the type of cancer at an ease. The existing model is able to predict only a specific type of cancer called melanoma. In this proposed model the model is trained using Convolution Neural Network (CNN) to classify the seven different types of cancer. This project is used in classifying skin cancer of a person according to dermatoscopic images into seven different types. With the help of this web application, a person will get to know that if he/she is suffering from any kind of skin cancer or not, so before going to consult any doctor a person will have some assurance about skin cancer.

Skin cancer is the most common human malignancy now-a-days, taking away the life span of human. Automated classification of skin lesions using images is a challenging task owing to the fine grained variability in the appearance of “HAMINST10000”.

It has seven different classes of skin cancer which are listed below:

1. Melanocytic nevi

2. Melanoma

3. Benign keratosis-like lesions

4. Basal cell carcinoma

5. Actinic keratosis

6. Vascular lesions

7. Dermatofibroma

Conclusion:

We hereby conclude that Skin Cancer Classification is implemented in three modules, first module is about performing image pre-processing. All theimages are resized into a dimension of 100 x 75 in order to train, test, and predict the classes and to calculate the accuracy of the model the model efficiently. In second module, Convolution Neural Network is applied to train the model and test it. In the third module using flask server the model is deployed i.e., flask framework as a web application. To provide better accuracy and to avoid computational complexity the model is built using Convolutional Neural Network algorithm with 78 percentage.

1. **INTRODUCTION**

* Introduction about Problem you are trying to solve
* Introduction about Existing solution
* Introduction about Proposed solution
* Brief Introduction about Platform and Technology used and why
* Purpose of Work:

Skin cancer is a very big health issue in today‟s fast-growing population not only forold age people but for all age groups.InmodelistrainedusingConvolutionNeuralNetwork(CNN)toclassifythesevendifferenttypesofcancer.Thismodel classifiesskincancerofapersonaccordingtodermatoscopicimagesintosevendifferenttypes.With the help of this web application, a person will get to know that if he/she suffering fromany kind of skin cancer or not, so before going to consult any doctor a person will have someassuranceaboutskincancer.

* Scope of Work

1. **LITERATURE SURVEY**

* Survey and study of published literature on the assigned topic
* List out Research gaps

1. **PROBLEM STATEMENT**

* Existing Systems
* Problem Definition
* Problem Statement

1. **SYSTEM ARCHITECTURE**

* Neat Block Diagram
* Modules **explanation**

1. **PRELIMINARY ANALYSIS**

* Brief about Input data
* Type of analysis doing on Data
* Expected Outcome

1. **FEASIBILITY STUDY**

Working out a preliminary approach to the problem relating to the assigned topic

* Technical Feasibility
* Operational Feasibility
* Economical feasibility

1. Summary of Project Report

Project coordinator HOD, IT Dept.