

Project Design Phase-I
Proposed Solution Template

Date	27 September 2022
Team ID	PNT2022TMID35991
Project Name	AI-based localization and classification of skin disease with erythema
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Now a day's people are suffering from skin diseases, More than 125 million people suffering from Psoriasis also skin cancer rate is rapidly increasing over the last few decades especially Melanoma is most diversifying skin cancer. If skin diseases are not treated at an earlier stage, then it may lead to complications in the body including spreading of the infection from one individual to the other. The skin diseases can be prevented by investigating the infected region at an early stage. The characteristic of the skin images is diversified so that it is a challenging job to devise an efficient and robust algorithm for automatic detection of skin disease and its severity. Skin tone and skin colour play an important role in skin disease detection. Colour and coarseness of skin are visually different. Automatic processing of such images for skin analysis requires quantitative discriminator to differentiate the diseases.
2.	Idea / Solution description	To overcome the above problem we are building a model which is used for the prevention and early detection of skin cancer, psoriasis. Basically, skin disease diagnosis depends on the different characteristics like colour, shape, texture etc. Here the person can capture the images of skin and then the image will be sent the trained model. The model analyses the image and detect whether the person is having skin disease or not.

3.	Novelty / Uniqueness	The novelty proposed in this approach is we have collected the dataset on our own. We have also annotated the images by ourselves.
4.	Social Impact / Customer Satisfaction	The model which will be built by us is very useful for the users to find the type of disease quickly and get the correct the medicine as soon as possible. We ensure to the users that our model diagnoses the diseases well.
5.	Business Model (Revenue Model)	Our model can be deployed in the web, and can be made like subscription based application, so that we can get the revenue from that subscription. It can be a monthly subscription.
6.	Scalability of the Solution	This model is now built only for 10 specific diseases , but it can be scaled for classifying for multiple diseases. We can collect more images in the future and classify the diseases for more accurate results.