Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID42059
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)	past studies of non-CNN segmentation models used innovative pre processing methods, recent CNN developments have focused more on the architecture of the model than on the pre processing of data
2.	Idea / Solution description	Our objective is two-fold. First, we show that CAD can be used in the field of dermatology. Second, we show that state-of-the-art models can be used with current computing power to solve a wider range of complex problems than previously imagined.
3.	Novelty / Uniqueness	CNN segmentation model.
4.	Social Impact / Customer Satisfaction	state-of-the-art models can be used with current computing power to solve a wider range of complex problems than previously imagined.
5.	Business Model (Revenue Model)	skin disease models have been applied to either segmentation or classification
6.	Scalability of the Solution	we apply an innovative pre processing method to the data of our CNN segmentation model. The methods described above lack the ability to localize and classify multiple diseases within one image; however, we have developed a method to address this problem

In this paper, we present a method to sequentially combine two separate models to solve a larger problem. In the past, skin disease models have been applied to either segmentation or classification. In this study, we sequentially combine both models by using the output of a segmentation model as input to a classification model. In addition, although past studies of non-CNN segmentation models used innovative pre processing methods, recent CNN developments have focused more on the architecture of the model than on the pre processing of data. As such, we apply an innovative pre processing method to the data of our CNN segmentation model. The methods described above lack the ability to localize and classify multiple diseases within one image; however, we have developed a method to address this problem. Our objective is two-fold. First, we show that CAD can be used in the field of dermatology. Second, we show that state-of-the-art models can be used with current computing power to solve a wider range of complex problems than previously imagined. We begin by explaining the results of our experimentation, followed by a discussion of our findings, a more detailed description of our methodology, and finally, the conclusions that can be drawn from our study.