

Project Design Phase-I
Proposed Solution Template

Date	15 October 2022
Team ID	PNT2022TMID31767
Project Name	Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<ul style="list-style-type: none">• Fundus image analysis for early cancer detection• diabetic retinal disease.• Analyze the DR level• To determine whether or not DR is present
2.	Idea / Solution description	<p>The plan is to use the fundus to identify diabetic retinopathy. as soon as possible to ensure that People and patients may go to their necessary medical care and eyesight prevention degradation or loss of vision for all time. Since this DR cannot be completely cured, we will create a deep learning model. (CNN) to accurately identify DR and people at risk of losing their vision should be saved.</p>
3.	Novelty / Uniqueness	<p>On the basis of the level of DR performed during analysis, a class-based classifier will be provided. As part of the effort, we'll also test out a transfer learning strategy that has the potential to be very successful and lead to improved performance.</p>

4.	Social Impact / Customer Satisfaction	People who lose their vision could actually benefit from this and live. Early analysis and detection of DR is vital for minimising societal impact because it can help patients keep their eyesight.
5.	Business Model (Revenue Model)	Doctors can analyse and identify DR using this model, in which it functions as a service model for public hospitals and a business model for private hospitals. Even it can be used as a business model by being exported to other nations that require it.
6.	Scalability of the Solution	There are more and more approaches to scale the solution so that the model is simple to combine with emerging technologies.