Project Design Phase-I
Proposed Solution Template

Date	26-09-2022
Team ID	PNT2022TMID24447
Project Name	Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy
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)**	In medical field, diagnosis of diseases competently carried out by using the image processing. Therefore, that to retrieve the relevant data from the amalgamation of resulting image is too difficult. Here the segmentation technique is very useful by semi-supervised learning then the result can be tuned by using Deep Learning Neural Network.
2.	**Idea / Solution description**	This laser treatment, also known as focal laser treatment, can stop or slow the leakage of blood and fluid in the eye. During the procedure, leaks from abnormal blood vessels are treated with laser burns
3.	**Novelty / Uniqueness**	Recent advances in the understanding of the pathophysiology of DR, in particular, the key role of cytokines, such as vascular endothelial growth factor (VEGF), have led to the development of anti-VEGF antibodies for intraocular use. Anti-VEGF therapies have largely replaced laser photocoagulation for the treatment of diabetic macular edema.
4.	**Social Impact / Customer Satisfaction**	The success of telescreening and the management of diabetic retinopathy (DR) in communities depends on stakeholder satisfaction, including both individuals with diabetes and community health center (CHC) staff.
5.	**Business Model (Revenue Model)**	Nearly 30 percent of diabetics suffer from diabetic retinopathy. Diabetes-related blindness costs can total more than $500 million per year.
6.	**Scalability of the Solution**	Our solution consists of an imaging device and software for automatic classification of measurements that will indicate if an individual has diabetic retinopathy, even when operated by a non-expert.