Project Design Phase-I
Proposed Solution

Date	19 September 2022
Team ID	PNT2022TMID51065
Project Name	Deep Learning Fundus Image Analysis For Early Detection Of Diabetic Retinopathy
Maximum Marks	2 Marks

Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement	**Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy:** The Diabetic Retinopathy is a disease which affects the vision of the patient. The project is the time consuming, cost effective detection the DR with the high accuracy without need of Clinicians.
2.	Idea / Solution description	Collect the datasets for classifying the normal retina and diabetic retina in real time. Develop the machine learning algorithm to classify normal retina and diabetic retina. After developing the algorithm, train the model with datasets collected in real time datasets. Validation for test data will be carried. Once the performance accuracy is above 98%, the algorithm will be implemented.
3.	Novelty / Uniqueness	Using the trained model with more than 98% accuracy to detect the diabetic retinopathy will result in the more accurate result.
4.	Social Impact / Customer Satisfaction	This will very helpful for the people to easily detect diabetic retinopathy within the less amount of time and take necessary treatment to prevent the Caustious effects
5.	Business Model (Revenue Model)	This will be developed as a product to detect diabetic retinopathy. This will reduce the number of Clinicians and time required to detect the DR in the hospitals.
6.	Scalability of the Solution	This will be done by collecting the correct information as a constraint and training the model with more datasets till the accuracy becomes greater than the 98%.Once the optimum accuracy is reached, then it will be implemented using embedded device