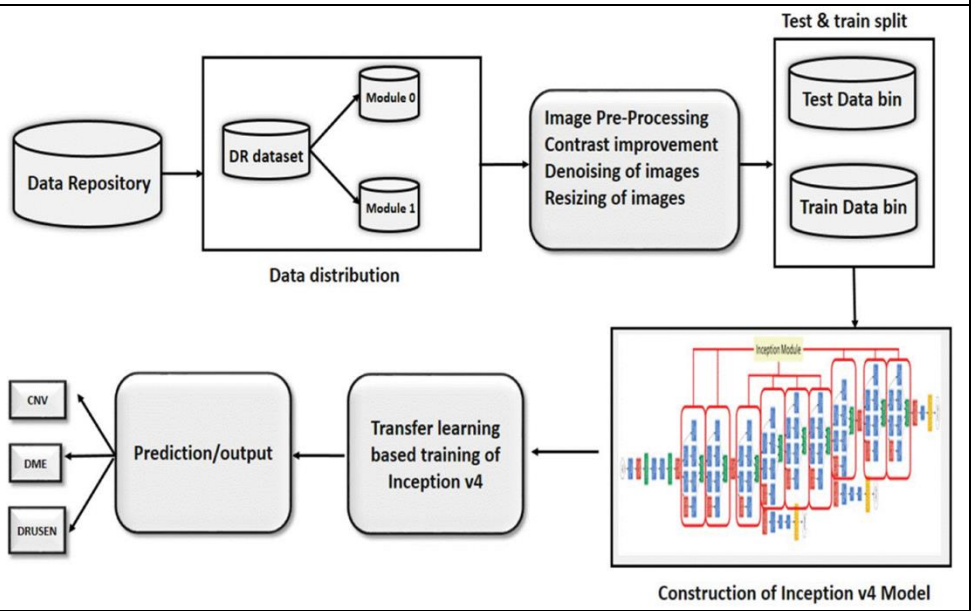
Project Design Phase-I
Proposed Solution

Date	24 September 2022
Team ID	PNT2022TMID02274
Project Name	Project - Deep Learning Fundus Image Analysis for Early Detection of Diabetic Retinopathy
Maximum Marks	2 Marks

Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Diabetes is a globally prevalent disease that can cause visible microvascular complications such as diabetic retinopathy in the human eye retina, the images of which are today used for manual disease screening and diagnosis. This labour-intensive task could greatly benefit from automatic detection using deep learning technique.
2.	Idea / Solution description	Here we present a deep learning system that identifies referable diabetic retinopathy comparably or better than presented in the previous studies, although we use only a small fraction of images (less than 1/4th) in training but are aided with higher image resolutions.
3.	Novelty / Uniqueness	We are providing novel results for five different screening and clinical grading systems for diabetic retinopathy including state of the art results for more accurately classifying images according to clinical five grade diabetic retinopathy
4.	Social Impact / Customer Satisfaction	This deep learning model can be used to identify people with diabetic retinopathy and Diagnose the clinical grade of diabetic retinopathy in them
5.	Business Model (Revenue Model)	
6.	Scalability of the Solution	This deep learning system could increase the cost effectiveness of screening and diagnosis attaining higher than recommended performance and that the system could be applied in clinical examinations requiring finer grading