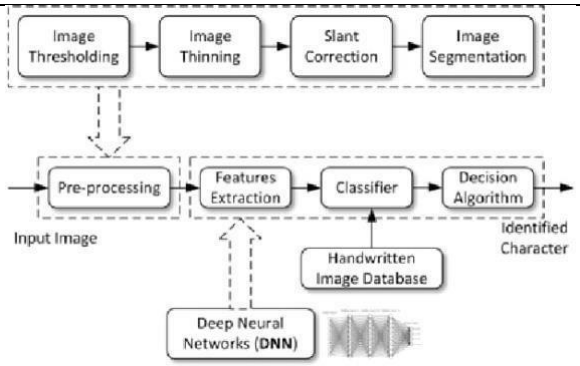
Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID16365
Project Name	Project - A Novel Method For Handwritten Digit Recognition System
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)	(i) The problem statement is to classify handwritten digits. (ii) The goal is to take an image of a handwritten digit and determine what that digit is. (iii) The digits range from zero (0) through nine (9).
2.	Idea / Solution description	We propose a novel method to compute the learning rate for training deep neural networks with stochastic gradient descent.
3.	Novelty / Uniqueness	(i) Two techniques used uniquely are Pattern Recognition and Artificial Neural Network (ANN) and Convolution Neural Network(CNN) using MNIST dataset. (ii) Also uses integrated GUI for recognition.
4.	Social Impact / Customer Satisfaction	(i) Machine learning and deep learning plays an important role in computer technology and artificial intelligence. (ii) With the use of deep learning and machine learning, human effort can be reduced in recognizing, learning, predictions and many more areas.

5.	Business Model (Revenue Model)	
6.	Scalability of the Solution	(i) As it uses neural networks, these systems have a respectable success rate in handwritten recognition. (ii) It provides higher than 99% accuracy of the resultant output.