

Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID15811
Project Name	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)	Nowadays world is transferring to digital data. Digital Data are easy to handle and bring insights. This information can be used for various purposes. So, we propose a simple project of handwritten digit recognition, where the handwritten digit is recognised by our machine learning model.
2.	Idea / Solution description	In this phase we train the neural network model on the training data(image) with certain pre-processing. Later the model is trained for several epochs until we get less validation error. Now the model can be used to predict new image and output what digit was written.
3.	Novelty / Uniqueness	We tried built in model like Decision tree, Random Forest etc, but the proven fact is Convolutional neural network works well on image data. So, we choose CNN.
4.	Social Impact / Customer Satisfaction	End user are satisfied since this application digitalises the data.
5.	Business Model (Revenue Model)	This Project can be further enhanced by recognising handwritten text. This will help to convert manually written old data to digital ones. Creating an application like can make good revenue since most of the data in government are handwritten.

6.	Scalability of the Solution	This application is very scalable since the model is tested in various aspect and then released for public usage.
----	-----------------------------	---