Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID17749
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)	Handwritten digit recognition is the process to provide the ability to machines to recognize human handwritten digits. It is not an easy task for the machine because handwritten digits are not perfect, vary from person-to-person. Papers are replaced by digital documents for various reasons. Machines do not have the ability to understand what has been written on those physical papers. The purpose of this project is to use the classification algorithm to identify handwritten digits.
2.	Idea / Solution description	CNN architecture in AI is used to recognise the handwritten digits. The input is passed through the CNN layers to classify the handwritten digits. The MNIST dataset contains 60,000 plus training images of handwritten digits from zero to nine and more than 10,000 images for testing are present in the MNIST dataset.
3.	Novelty / Uniqueness	GAN layers can be used for better accuracy in the handwritten digit recognition system. Normalisation can be used for better efficiency.
4.	Social Impact / Customer Satisfaction	Old people having eye sight problems with handwritten digits can be helped. Postal department and courier services can easily find the handwritten digits.
5.	Business Model (Revenue Model)	In banking sectors handwritten numbers are involved like account number, figure of cash and checks. By this system we can avoid human mistakes.
6.	Scalability of the Solution	AI is used for the development of this system. So it can be used in any devices.