Project Design Phase-I
Proposed Solution

Date	19 September 2022
Team ID	PNT2022TMID25100
Project Name	A Novel Method for Handwritten Digit Recognition System
Maximum Marks	2 Marks

Proposed Solution :

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	A Novel Method for Handwritten Digit Recognition System
2.	Idea / Solution description	The proposed solution is to classify the digits which is in handwritten format by using CNN based model and this model can be trained by using MNIST database which contains 60,000 training samples and 10,000 test samples.
3.	Novelty / Uniqueness	To classify the image datasets by using CNN, which provides efficient solution compare to other methods. Here ANN algorithm is used for voice recognition which helps blind people.
4.	Social Impact / Customer Satisfaction	Users no need to use external dependencies or devices to recognize the digits, this process can be done through our mobile phones.
5.	Business Model (Revenue Model)	• Input module • Image processing module • Feature extraction module • Data set training module • Analysis module
6.	Scalability of the Solution	The accuracy of the result for the training data set is **99.98%**, and 99.40% with 50% noise by using MNIST. Even we can improve this model to achieve the better results by training different types of datasets