Project Design Phase-I
Proposed Solution

Date	19 September 2022
Team ID	PNT2022TMID04081
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)	The recognition of the handwritten digit and text will be crucial in today's world for theft identification, identifying zip codes, data processing etc. The main problem is there are lot of styles to write a single character/letter. Hence, an efficient solution is to be provided for the problem by developing a digit recognition system.
2.	Idea / Solution description	The solution is developed by creating a CNN model that can capture a handwriting directly from the user or scan an image and convert it into the text and the text is displayed and the screen and can be exported for using in other applications or for storing the data in the database for future use.
3.	Novelty / Uniqueness	We are trying to develop and train the model which can detect the different writing styles of the same character and providing support for both offline and online mode. We also try to convert the detected text into other languages along with grammatical error detection
4.	Social Impact / Customer Satisfaction	The digit recognition system can be used wherever the form procedure is followed such as banks, hospitals, educational institutions, government and private offices, etc. It can also be used to **detect fraud cases** by comparing handwritings and encoding them to search for duplicates. This can be done with the help of an image recognition model. The places which deals and process with large amount of customer data can get benefited with this digit recognition system.

SI.NO	Parameter	Description
5.	Business Model (Revenue Model)	The major revenue sources are the **sales of the application, donations and investments from the stakeholders** .The introduction of more features such as multiple language support, remotely accessing the data, integration with other applications and **development of more novel ideas will generate more revenue** thereby developing the product in every single step possible.
6.	Scalability of the Solution	New version can be made available by increasing the efficiency of the model, providing new features and providing support across different platforms and operating systems**. Cloud integration** can be done with the help of the cloud services provided by companies such as IBM, Google, Amazon etc.