

**Project Design Phase-I**  
**Proposed Solution Template**

Date	19 September 2022
Team ID	PNT2022TMID48537
Project Name	Project - A novel method for handwritten digit recognition
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 am user trying to make a digit recognition to extract and remove the redundancy from the data, but it is quite exhausting that human cannot recognise even their own return script because most of the humans digit handwriting looks more similar which makes me feel to build a new platform to recognise every unique handwriting.
2.	Idea / Solution description	Input layer: Layer for calculation. Hidden layer: Provides nonlinear ties for network. Output layer: Final prediction of neural network.
3.	Novelty / Uniqueness	OCR technology provides higher than 99% accuracy with typed characters in high quality images.
4.	Social Impact / Customer Satisfaction	The system not only produces classification of the digit but also a rich description of the instantiation parameters which can yield information such as style writing.
5.	Business Model (Revenue Model)	Slope Detail feature for handwritten digit recognition are based on shape analysis of the digit image and extract slant or slope information.
6.	Scalability of the Solution	SVM classifier was the most accurate, whereas decision tree were the least! hence we conclude that both in terms of accuracy score and F1-score, the SVM classifier performed the best.