

# Project Design Phase-I

## Problem – Solution Fit Template

Date	19 September 2022
Team ID	PNT2022TMID08467
Project Name	A Novel Method For Hand Written Digit Recognition
Maximum Marks	2 Marks

**Project Title: A Novel Method For Hand Written Digit Recognition**

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1. CUSTOMER SEGMENT(S) A officer in a post office receiving letters and couriers in a written format	6. CUSTOMER CONSTRAINTS It is a difficult because most person's handwriting will not similar, scanner or camera work perfect in perfect light condition, It took to much time to process.
2. JOBS-TO-BE-DONE / PROBLEMS J&P He/She Wants To Store The Pincode Or Mobile Number Etc... Into A Storage Space . So A Hand Written Digit Recognition System Is Needed To Solve Those Problems.	7. BEHAVIOUR BE Before Processing The Image Application Should Verify The Photo Was Taken In Correct Angle And Correct Lighting. User Should Completely Aware Of Instruction Of Application
3. TRIGGERS TR To do the work in a efficient manner. So that the officer getting satisfied.	8. CHANNELS of BEHAVIOUR CH 8.1 ONLINE Online handwriting recognition involves the automatic conversion of text as it is written on a special digitizer where a sensor picks up the pen-tip movements as well as pen-up/pen-down switching. 8.2 OFFLINE K-NN combined with preprocessing methods can achieve great performance apart from Neural Network when used as a classification algorithm in offline handwritten digit recognition.

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4. EMOTIONS: BEFORE / AFTER EM BEFORE: They eagerly wants to finish is work quickly and easily .  
AFTER: If its working fine they feels better.

9. PROBLEM ROOT CAUSE RC A small recognition error may cause the big difference in the end result

5. AVAILABLE SOLUTIONS AS Various people's handwriting should be used for train the AI. That should improve the accuracy. Traning the model in a proper way to get the better outcome.

10. YOUR SOLUTION SL The handwritten recognition model takes an image as an input and compare the preprocessed digits with the trained datasets and give the output of digits as a text well as pen-up/pen format.