

**Project Design Phase-I**  
**Problem – Solution Fit Template**

Date	19 September 2022
Team ID	PNT2022TMID15720
Project Name	Project - xxx
Maximum Marks	2 Marks

**Project Title: A Novel Method For Hand Written Digit Recognition**  
**Team ID: PNT2022TMIDxxxxxx**

Define CS, fit into CC

**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.

**5. AVAILABLE SOLUTIONS**

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 betteroutcome.

Focus on J&P, tap into BE, understand

**2. JOBS-TO-BE-DONE / PROBLEMS**

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.

**9. PROBLEM ROOT CAUSE**

A small recognition error may cause the big difference in the end result.

**7. BEHAVIOUR**

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.

Explore AS, differentiate

Focus on J&P, tap into BE, understand

Identifying strong TR & EM	<div>3. TRIGGERS</div> <div>TR</div> <div>To do the work in a efficient manner. So that the officer getting satisfied.</div>	<div>10. YOUR SOLUTION</div> <div>SL</div> <div>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.</div>	<div>8. CHANNELS of BEHAVIOUR</div> <div>CH</div> <div>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.</div> <div>8.2 OFFLINE K-NN combined with preprocessing methods can achieve great performance apart from Neural Network when used as a classification algorithm</div> <div>in offline handwritten digit recognition.</div>
	<div>4. EMOTIONS: BEFORE / AFTER</div> <div>EM</div> <div>BEFORE: They eagerly wants to finish his work quickly and easily . AFTER: If its working fine they feels better.</div>		

