

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

Date	31 Oct 2022
Team ID	PNT2022TMID41730
Project Name	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)	It is hard for the machines to identify the digits because handwritten digits are not perfect and can be of many different shapes and sizes which cause difficulty in recognizing them.
2.	Idea / Solution description	The Handwritten digit recognition system helps us to tackle this problem we collect the pictures of different style of Handwritten digits and encrypt them into datasets. These datasets are trained and tested to form a model.
3.	Novelty / Uniqueness	Though we have many model based on the Handwritten digits recognition most of the model are slow to response such as to test and train the data. So, to counteract this problem we try to optimize the model and also decrease the pre-processing time of the model.
4.	Social Impact / Customer Satisfaction	Customer satisfaction is the key to the growth of any product. So, as this system was very useful in many places such as used in the detection of vehicle number, banks for reading cheques, post offices for arranging letter, and many other tasks. So, in social places this system will help majorly to solve the problems.
5.	Business Model (Revenue Model)	We can provide one time purchase policy which the system can be bought for a single user per computer. as the development of this project takes lot of time to create and the datasets are difficult to collect we can arrange the mode of payment and some policy can also be implemented.
6.	Scalability of the Solution	This proposed system can be scaled up and down based on the way of introducing the project in the market. Not every person may get interested in this system so, we can provide some real-time awareness about how this system will be helpful to everyone and slowly we can expand the scale of this project.