

Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID33471
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)	Handwritten digits are not perfect and can be made with many different shapes and sizes. It is hard task to system recognize.
2.	Idea / Solution description	To provide the solution to this problem with uses the image of a digit and recognises the digit present in the image by using the concept of Convolutional Neural Network.
3.	Novelty / Uniqueness	In this project we train our model using Modified National Institute of Standard and Technology dataset. This dataset is trained using Convolutional Neural Network algorithm with the help of Keras which is python library for extensive computation of neural nodes supported by Tensor Flow Framework at backend. This is more accurate.
4.	Social Impact / Customer Satisfaction	Once model gets the desired testing results a GUI is developed for users where they can make their inputs either by drawing the digits by themselves or inserting an image file which consist of handwritten digits to get the prediction and accuracy percentage from our model.
5.	Business Model (Revenue Model)	Field service technicians use HWR technology for digital data capture, decreasing paperwork and information loss while also allowing technicians to see precise notes on customer history. Each of these technology solutions ensures that customers receive the most efficient service possible.
6.	Scalability of the Solution	With this we will be able to predict the handwritten digits in an image. This model is more accurate.