Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID20903
Project Name	Project - 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)	Everything is being digitized to reduce human effort. Hence there comes the need for handwritten digit recognition system. Handwritten digit recognition can be accomplished using a variety of approaches. The machine has a difficult duty because handwritten digits are not flawless and can be generated with a variety of flavors. The solution to this issue is handwritten digit recognition, which uses an image of a digit and identifies the digit represented in the image.
2.	Idea / Solution description	The major goal of the proposed system is understanding Convolutional Neural Network(CNN), and applying it to the handwritten recognition system .
3.	Novelty / Uniqueness	By using advanced digital techniques Using the convolutional neural network techniques to produce high accuracy
4.	Social Impact / Customer Satisfaction	'There are many benefits associated with the handwriting recognition system. In addition to reading postal addresses and bank check amounts, it is also useful for reading forms. Furthermore, it's used in fraud detection because it makes it easy to compare two texts and determine which one is a copy. As a result, this system fulfills customers' expectations, as it is a novel method for recognizing handwritten digits, ensuring high accuracy for the model and meeting all customer expectations. Users also has impact on physically impaired people and helps them in terms of safety
5.	Business Model (Revenue Model)	Uses CNN techniques To improve a Scalability and the hanawriting to be recognized Is digitized through scanners or cameras.the image of the document is segmented into lines,

		words and individual characters.using the lexicons or spelling checkers.
6.	Scalability of the Solution	One of the approaches to make the hanawritten digit recognition system scalable is to make use of native methods. For example, one of the cloud solutions for making Al scalable is IBM Cloud. IBM Cloud Build helps run and manage Al models, optimize decisions at scale across any cloud. After training and testing the accuracy rate reached 99% .this accuracy rate is very high. the overall recognition system was successful.