**Project Design Phase-I**

**Proposed Solution Template**

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| Date | 19 September 2022 |
| Team ID | PNT2022TMID04292 |
| 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.

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| **S.No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | Handwriting recognition is one of the compelling research works going on because every individual in this world has their own style of writing. It is the capability of the computer to identify and understand handwritten digits or characters automatically. Because of the progress in the field of science and technology, everything is being digitalized to reduce human effort. Hence, there comes a need for handwritten digit recognition in many real-time applications |
|  | Idea / Solution description | MNIST data set is widely used for this recognition process and it has 70000 handwritten digits. We use Artificial neural networks to train these images and build a deep learning model. Web application is created where the user can upload an image of a handwritten digit. this image is analyzed by the model and the detected result is returned on to UI |
|  | Novelty / Uniqueness | The Digit to be displayd on the screen will be read to the physically challenged people(Blind and Deaf). |
|  | Social Impact / Customer Satisfaction | Every individual has their own style of writing. With the help of this application all can have a clear view on others handwritting.Like, Doctors handwriting will be understood by the patient.  Students handwriting will be understood by teachers. |
|  | Business Model (Revenue Model) | 1. Doctors handwriting will be understood by the patient. 2. Students handwriting will be understood by teachers. 3. Cashiers can understand customers handwriting in bank |
|  | Scalability of the Solution | The application will be able to process 1 file at a time. |