**Project Design Phase-I**

**Proposed Solution Template**

|  |  |
| --- | --- |
| Date | 19 September 2022 |
| Team ID | PNT2022TMID07719 |
| 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** |
|  | Problem Statement (Problem to be solved) | The processing of bank cheques takes a lot of time due to the manual nature of the work. Also there is a chance for human errors to take place. |
|  | Idea / Solution description | To solve this problem we are going to make use of CNN to predict the handwritten digits on the cheque and will take it as an input. |
|  | Novelty / Uniqueness | * Can be used offline * Will automatically classify all the inputs. |
|  | Social Impact / Customer Satisfaction | The primary societal benefit of this effort is to ensure effective and trustworthy methods for handwritten digit recognition and facilitate error-free financial transactions. Customers will feel comfortable using it because it is simple and convenient. This has a wide range of applications and the accuracy rate will also be good. |
|  | Business Model (Revenue Model) | Since this solution primarily targets financial institutions for the purpose of processing cheques  **Key Partners:** Financial Institutions  **Key Activities:** Classify the cheque details, digitizing the details and allowing it to be copied.  **Key Resources:** Webcam  **Customer Relationships:** We can communicate with the customers in the form of feedbacks and review meetings.  **Cost Structure:** Hardware Cost, Advertisement.  **Revenue Stream:** We intend to charge on a cost per cheque basis where there will be a fixed processing fee for each cheque. And the payment will be made on a monthly basis. |
|  | Scalability of the Solution | Financial Institutions such as banks are facing issues in Recognizing written digits such as in cheques etc. This can be handled by our handwritten digit recognition project as they expand into different business domains without impacting performance. Our proposed solution is scalable as it is dynamic and also trained using AI and deep learning Models |