PROJECT DESIGN PHASE-1

PROPOSED SOLUTION

Team ID	**PNT2022TMID11500**
Project Name	**A Novel Method for Handwritten Digit Recognition system**
Date	**25.09.2022**
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S.NO.	PARAMETER	DESCRIPTION
1.	Problem Statement (problem to be solved)	The Handwritten digits are not always of the same size, width, orientation and justified to margins as they differ from writing of person to person. The similarity between digits such as 1 and 7, 5 and 6, 3 and 8, 2 and 7 etc. So, classifying between these numbers is also a major problem for computers. The uniqueness and variety in the handwriting of different individuals also influence the formation and appearance of the digits.
2.	Idea/ Solution Description	1. It is the capability of a computer to fet the mortal handwritten integers from different sources like images, papers, touch defences. 2. It allows user to translate all those signature and notes into electronic words in a text document format and this data only requires far less physical space than the storage of the physical copies.
3.	Novelty/ Uniqueness	1. Artificial Intelligence developed the app called Handwritten digit Recognizer. 2. It converts the written word into digital approximations and utilizes complex algorithms to identify characters before churning out a digital approximation.
4.	Social Impact/ Customer Satisfaction	1. To receive and interpret intelligible handwritten input from sources such as paper documents, photographs, touch-screens and other devices. 2.The main purpose of this application is to convert handwritten digits into machine readable formats.
5.	Business Model (Financial Benefit)	1.AI can generate revenue through consumer cases like reading text from stylus writing or camera applications to academic research on how handwriting recognition works in humans. 2.It minimizing the human labour and enhancing the solution versatility.
6.	Scalability of Solution	1. We described the data generation pipeline and presented a series of techniques to generate better data. 2. The experimental results showed that models can be improved by using the generated data, and we obtained the best model by combining the generated data and small amount of real images.