

## SOLUTION ARCHITECTURE

Date	13 <sup>th</sup> October, 2022
Team ID	PNT2022TMID28868
Project Name	A Novel Method for Handwritten Digit Recognition System
Maximum Marks	4 Marks

Handwritten Digit Recognition can be done with the help of the deep learning algorithm, Convolutional Neural Network (CNN) which works similar to that of the neurons in human brain. The MNIST dataset containing 70,000 images of handwritten digits is loaded and pre-processed. The dataset is split as training and testing set and then the CNN model is created and saved. The model is used for identifying the handwritten digit from the user.

The major steps involved in this.

1. Load the dataset
2. Splitting into training and testing
3. CNN modelling
  - 3.1. Convolution
  - 3.2. Pooling
  - 3.3. Fully connected
4. Output prediction

### Architecture Diagram

