

# Problem Statement

## A NOVEL METHOD FOR HANDWRITTEN DIGIT RECOGNITION

Our system aims to accurately recognize digit given as the input in the form of image or document in order to quickly identify different hand writing styles and to minimize the need for human in terpretation. A few application soft he system would be postal mail sorting, bank cheque processing, form data entry, etc. We aim to develop 7-layered CNNmodel with 5-hidden layer along with Gradient descentand Back propagation model to find and compare accuracy on different Epochs . We achieve this by using MNIST Dataset ,which contains 60,000 hand written digit images for the classifier training and 10,000 hand written digit images for the classifier testing. Finally, the recognized digit will be displayed in the user interface.

# ARCHITECTURAL DIAGRAM

