# A NOVEL METHOD FOR HANDWRITTEN DIGIT RECOGNITION SYSTEM

## Problem statement:

Digit recognition plays a major role in the modern world. Handwritten digit recognition is a more challenging problem so that the researchers had been study in this area for the recent years. In our study research, there are many terms relate with Handwritten numbers, say for example, cheques in banks or number plates in car or pincode recognition of postal and courier services, the knowledge of recognition of digits emerges. A dedicated system for the recognition of isolated digits may be a suitable approach for handling with such applications. In other words, the computer understand the digital numbers that is written manually by users and analyse them according to the processor. Engineers who have better skills and knowledge in image processing,data analysis and pattern recognition have developed different methods to deal with handwriting number recognition problems such as decision tree, minimum distance, and statistics.

## Approach:

The main aim for our project is to recognize isolated digits which exist in various applications. For example, different users have different handwriting styles where here the **major challenge falls** to let the computer system understand these different types of these handwriting styles and recognize them as standard form of writing.

## PROPOSED SOLUTION:

We have designed a solution for this problem. The project first gets the input in form of a image which is then digitized with help of optical devices. The digits are recognized using a feed forward propagation mechanism after a few modifications. The model is trained with about 70000 samples from MNIST data set.