

## **PROBLEM STATEMENT**

- The problem is recognizing the human handwritten digits by system. The goal is to upload the image of the handwritten digit and identify the digit with accuracy.
- Digits' are a part of our everyday life, be it License plates on our cars or bikes, the price of a product, speed limit on a road, or details associated with a bank account. The recognition of digits is important because humans can't remember all these numbers ,so there is a need for a system to recognize them.
- Handwritten digit recognition is the ability of computers to recognize human handwritten digits. It is a hard task for the machine because handwritten digits are not perfect and can be made with many different flavors.
- The main objective is to compare the accuracy of the models stated above along with their execution time to get the best possible model for digit recognition.
- The digits are used in postal mail sorting, bank check processing, form data entry, etc. For this type of work there is a need for a system which can handle the data (digits) easily as well as accurately.

QUESTION	DESCRIPTION
What does the problem affect?	It is hard for people to understand the other's handwriting. Then how is the computer going to do it? It makes it hard for the programmers to solve the problem.
What are the boundaries of the problem?	The handwriting is not the same for all. The thickness, color, size, shape is differ for every one.This factors make the system more complicated.
What is the issue?	The general problem would be while classifying the digits due to the similarity between digits such as 1 and 7, 3 and 8, 2 and 7, etc.
When does the issue occur?	The problem when processing handwritten forms during the data capture process is poor quality or illegible handwriting.
Where is the issue occurring?	During the data capture validation stages of any forms processing activity,all required text fields are processed which involves recognition and extracting the written characters.