PROBLEM STATEMENT

Domain: Artificial Intelligence.

Topic: A Novel Method for Handwritten Digit Recognition System.

PS-1: The Department of traffic enforcement needs a number plate digit recognition tool to integrate with traffic monitoring system to remove manual monitoring which is error prone and impose penalty for speeding online.

PS-2: Postal agencies need an automation tool to sort out mails using pin code to increase profit by cutting man power and speed up the delivery process to gain customer trust.

PS-3: Companies need a data entry tool to reduce manual data entry errors and improve entry speed with high accuracy to increase profit, reduce manual work and improve performance.

PS-4: Banks need an automation tool to recognize digits in a cheque to speed up the cheque approval process which usually takes time with high accuracy.

Description

The problem statement is to classify handwritten digits. The goal is to take an image of a handwritten digit and determine what that digit and character. It is easy for the human to perform a task accurately by practicing it repeatedly and memorizing it for the next time. Human brain can process and analyse images easily. Also, recognize the different elements present in the images. The goal is to correctly identify digits from a dataset of tens of thousands of handwritten images and experiment with different algorithms to learn first-hand what works well and how techniques compare .The handwritten digit recognition is the capability of computer applications to recognize the human handwritten digits. It is a hard task for the machine because handwritten digits are not perfect and can be made with many different shapes and sizes.

Impact

- Speed up the cheque approval process Store transaction records.
- Ensure road safety by identifying the owner of the speeding vehicle by using the registration number of that vehicle.