

A Novel Method for Handwritten Digit Recognition System

INTRODUCTION:

Handwritten Digit recognition is becoming more and more important in the modern world. It helps humans ease their jobs and solve more complex problems. An example is handwritten character recognition which is widely used in the world. This system is developed for zipcode or postal code recognition that can be employed in mail sorting. This can help humans to sort mails with postal codes that are difficult to identify. For more than thirty years, researchers have been working on handwriting recognition. Over the past few years, the number of companies involved in research on handwriting recognition has continually increased.

EXISTING SYSTEM:

The advance of handwriting processing results from a combination of various elements, for example: improvements in the recognition rates, the use of complex systems to integrate various kinds of information, and new technologies such as high quality high speed scanners and cheaper and more powerful CPUs. Some handwriting recognition system allows us to input our handwriting into the system.

Handwritten digit recognition is the ability of a computer system to recognize the handwritten inputs like digits, characters etc. from a wide variety of sources like emails, papers, images, letters etc. This has been a topic of research for decades. Some of the research areas include signature verification, bank check processing, postal address interpretation from envelopes etc.

Handwriting recognition system is the most basic and an important step towards this huge and interesting area of Computer Vision.

PROPOSED SYSTEM:

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.

The handwritten digit recognition system is away to tackle this problem which uses the image of a digit and recognizes the digit present in the image.

Number recognition has numerous operations like number plate recognition, postal correspondence sorting, bank check processing, etc.

The goal of our work is to create a model that will be able to recognize and classify the handwritten digits from images by using concepts of Convolution Neural Network. Though the goal of our research is to create a model for digit recognition and classification, it can also be extended to letters and an individual's handwriting.

The existing methods in current image recognition use as inputs all the pixels of the image. The purpose of this work is to minimize the number of pixels by using as input the data extracted and calculated from the initial image. This will be used for many fields.