

# REAL TIME HANDWRITING RECOGNITION

## INTRODUCTION:

Generally, people find writing on paper easier than typing on a computer but the more required or accepted format is digital.

To bridge this gap we propose to build an application which will convert handwriting into formal text in real time and allow sharing or transferring that text to other applications.

Under the guidance of our team mentor, **Dr.Sandeep Harit**, we are planning to develop a desktop application which will provide a virtual touchscreen utility.

## PROPOSED SOLUTION /FEATURES :

- We propose to make a desktop application which will have the features of a canvas and provide a drawing area where we will be having several features such as choosing pen thickness, colour, eraser and other tools.
- On the basis of content available on the canvas our application will recognise handwritten text and convert into formal text.
- We further propose to extend it to recognising symbols, equations, diagrams etc.
- It will support canvas sharing amongst users making it useful during collaborative work.
- We also propose to have OCR feature where we can convert an already handwritten document to digital version.

## TECHNICAL DETAILS :

- For making the desktop application we propose to use ElectronJS framework for development

- For allowing the sharing of board we propose to use socket programming and javascript.
- For detecting and recognizing words and letters we shall use Deep Learning (RNNs and LSTMs)

#### **TEAM DETAILS :**

Sahil Singla (18103017)

Vivek Singh (18103094)

Rahul Garg (18103112)

Anant Pahwa (18103126)