**Computer vision**

**National ID Card Recognition**

**Project overview:**

This project implements for recognizing and extracting information from various national ID cards using OpenCV and Tesseract OCR

**Process:**

**1) Installation**

!sudo apt install tesseract-ocr

!sudo apt install libtesseract-dev

!pip install pytesseract

**2) Import libraries**

- OpenCV

- Pytesseract

- Pandas

-matplotlib

-re

**3) Read and Display Image**

cv2.imread(image\_path)

**4) Convert to Grayscale**

cv2.cvtColor(img1, cv2.COLOR\_BGR2GRAY)

**5) Denoise Image**

cv2.fastNlMeansDenoising

**6) Edge Detection and Contour Finding**

cv2.Canny(denoised, 100, 200)

cv2.findContours(edges, cv2.RETR\_EXTERNAL, cv2.CHAIN\_APPROX\_SIMPLE)

**7) Text Extraction**

Use pytesseract.image\_to\_string to perform Optical Character Recognition (OCR)

**8)Test and Validation**

sample ID card



