import cv2

import pytesseract

# Load the video

video\_capture = cv2.VideoCapture(Traffic\_video.mp4')

# Initialize the license plate detector (you may need to train your own detector)

plate\_cascade = cv2.CascadeClassifier('haarcascade\_russian\_plate\_number.xml')

while video\_capture.isOpened():

    ret, frame = video\_capture.read()

    if not ret:

        break

    # Convert the frame to grayscale for plate detection

    gray = cv2.cvtColor(frame, cv2.COLOR\_BGR2GRAY)

    # Detect license plates in the frame

    plates = plate\_cascade.detectMultiScale(gray, scaleFactor=1.2, minNeighbors=5)

    for (x, y, w, h) in plates:

        plate\_img = frame[y:y+h, x:x+w]

        # Use Tesseract to perform OCR on the detected plate region

        text = pytesseract.image\_to\_string(plate\_img, config='--psm 8 --oem 3')

        # Print the recognized license plate text

        print("License Plate:", text)

        # Draw a rectangle around the detected plate

        cv2.rectangle(frame, (x, y), (x + w, y + h), (0, 255, 0), 2)

    # Display the frame with detected plates

    cv2.imshow(frame)

    if cv2.waitKey(1) & 0xFF == 27:  # Press 'Esc' to exit

        break

# Release video capture and close OpenCV windows

video\_capture.release()

cv2.destroyAllWindows()

OUTPUT:

