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In [ ]: import cv2 #It is an object detection program using opencv
platecascade=cv2.CascadeClassifier("D:\haarcascade_russian_plate_number.xml") #Upload intelligence in seprate drive to easy exess.
cap=cv2.VideoCapture(0) #use webcamra
minArea=500
count=0 #Taking Counter
while True: #infinite loop
    sucess,img=cap.read() #Read the image of vidio
    imggray=cv2.cvtColor(img,cv2.COLOR_BGR2BGRA)
    face =platecascade.detectMultiScale(imggray,1.1,4) #Detected plate with intelligence
    for (x,y,w,h) in face:
        area=w*h
        if area > minArea:
            cv2.rectangle(img, (x, y), (x + w, y + h), (255, 0, 0), 2) #We are making rectangle around numberplate image
            cv2.putText(img, 'NumberPlate', (x,y-5),cv2.FONT_HERSHEY_COMPLEX,1,(0,0,255),2) #Put text on detected image
            imageROI=img[y:y+h,x:x+w] # We are picking up our area of intrest
            cv2.imshow("DETECTED PLATE",imageROI) #Will show numberplate area only
    cv2.imshow("RESULT",img) #Show detected result
    if cv2.waitKey(5) & 0xFF == ord('s'): #Press s will save detected output in folder
        cv2.imwrite("D:\Z Number Plate\IMAGES"+str(count)+".jpg",imageROI) #Here we define folder where numberplate will save
        cv2.rectangle(img,(0,200),(640,300),(255,0,0),cv2.FILLED)#Will Put Rrectangle if image shown have numberplate
        cv2.putText(img, 'SCAN SAVED', (15,265),cv2.FONT_HERSHEY_COMPLEX,2,(0,255,255),2)# Give image with tital ScanSaved
        cv2.imshow("RESULT",img) #will save our result with title Result
        cv2.waitKey(500)
        count=count+1 #Increase counter by one step

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