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ASSIGNMENT-6

**CODE:**

import cv2

import datetime

eye\_classifier=cv2.CascadeClassifier("haarcascade\_eye.xml")

smile\_classifier=cv2.CascadeClassifier("haarcascade\_smile.xml")

#It will read the first frame/image of the video

video=cv2.VideoCapture(0)

while True:

#capture the first frame

check,frame=video.read()

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

cv2.imshow('video',gray)

#detect the faces from the video using detectMultiScale function

eyes=eye\_classifier.detectMultiScale(gray,1.3,5)

smiles=smile\_classifier.detectMultiScale(gray,1.3,5)

print(eyes)

#drawing rectangle boundries for the detected face

for(x,y,w,h) in eyes:

cv2.rectangle(frame, (x,y), (x+w,y+h), (127,0,255), 2)

cv2.imshow('eye detection', frame)

cv2.putText(frame, 'eye', (x,y-10), cv2.FONT\_HERSHEY\_COMPLEX\_SMALL, 1, (255,0,0), 4)

picname=datetime.datetime.now().strftime("mohansai\_%y-%m-%d-%H-%M")

cv2.imwrite(picname+".jpg",frame)

#drawing rectangle boundries for the detected eyes

for(ex,ey,ew,eh) in smiles:

cv2.rectangle(frame, (ex,ey), (ex+ew,ey+eh), (127,0,255), 2)

cv2.imshow('smile detection', frame)

#waitKey(1)- for every 1 millisecond new frame will be captured

Key=cv2.waitKey(1)

if Key==ord('q'):

#release the camera

video.release()

#destroy all windows

cv2.destroyAllWindows()

break



