VIT SMART BRIDGE IOT EXTERNSHIP PROGRAM

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Assignment-6:

Develop a python code to detect any object using Haar cascade classifier.

Python code:

haar.py - C:\Users\hp\Desktop\haar cascade\haar.py (3.9.6)

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```
import cv2
import numpy as np

body_classifier = cv2.CascadeClassifier('haarcascade_fullbody.xml')
cap = cv2.VideoCapture('crowd.mp4')

while cap.isOpened():
    ret, frame = cap.read()
    #frame = cv2.resize(frame, None,fx=0.5, fy=0.5, interpolation =cv2.INTER_LIN
    gray = cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)
    bodies = body_classifier.detectMultiScale(gray, 1.2, 3)

    for (x,y,w,h) in bodies:
        cv2.rectangle(frame, (x, y), (x+w, y+h), (0, 255, 255), 2)
        cv2.imshow('People detected', frame)
        cv2.putText(frame, 'People detected', (x,y-10),
        cv2.FONT_HERSHEY_SIMPLEX, 1, (255,0,0), 4)

    Key=cv2.waitKey(1)
    if Key==ord('q'):
        cap.release()
        cv2.destroyAllWindows()
        break
```

Code:

```
import cv2
import numpy as np
body_classifier = cv2.CascadeClassifier('haarcascade_fullbody.xml')
cap = cv2.VideoCapture('crowd.mp4')

while cap.isOpened():
    ret, frame = cap.read()
    #frame = cv2.resize(frame, None,fx=0.5, fy=0.5, interpolation =cv2.INTER_LINEAR)
    gray = cv2.cvtColor(frame, cv2.COLOR_BGR2GRAY)
    bodies = body_classifier.detectMultiScale(gray, 1.2, 3)

    for (x,y,w,h) in bodies:
        cv2.rectangle(frame, (x, y), (x+w, y+h), (0, 255, 255), 2)
        cv2.imshow('People detected', frame)
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    if Key==ord('q'):
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        break
```
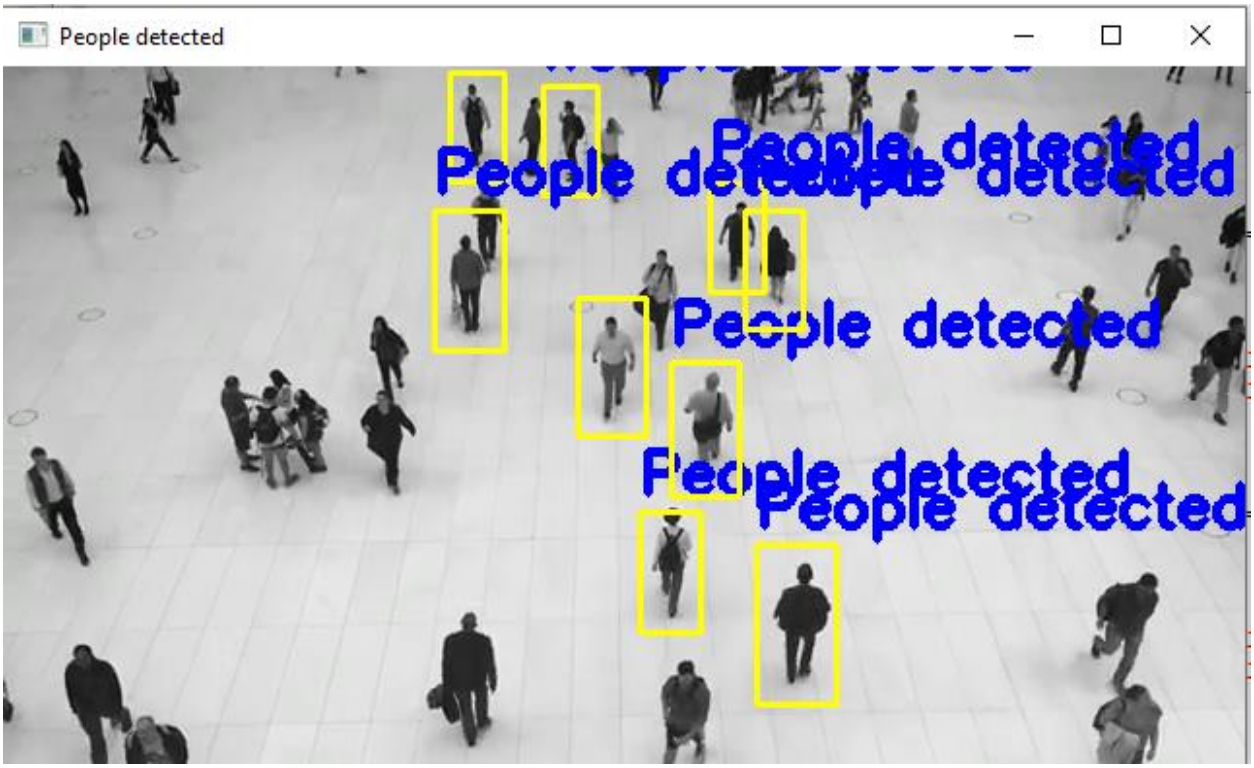

Output:


People detected
People detected
People detected
People detected
People detected
People detected