VIT-IOT(INDUSTRY CERTIFICATE INTERNSHIP PROGRAM)

ASSIGNMENT-6

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Assignment-6:

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

Python Code:

```
import cv2
import numpy as np

# Create our body classifier
body_classifier = cv2.CascadeClassifier('haarcascade_fullbody.xml')
# Initiate video capture for video file
cap = cv2.VideoCapture('walking.mp4')
# Loop once video is successfully loaded
while cap.isOpened():

    # Read first frame
    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)

    # Pass frame to our body classifier
    bodies = body_classifier.detectMultiScale(gray, 1.2, 3)

    # Extract bounding boxes for any bodies identified
    for (x,y,w,h) in bodies:
        cv2.rectangle(frame, (x, y), (x+w, y+h), (0, 255, 255), 2)
        cv2.imshow('Pedestrians', frame)
        cv2.putText(frame, 'Pedestrians', (x,y-10), cv2.FONT_HERSHEY_SIMPLEX, 1, (255,0,0), 4)
    #waitKey(1)- for every 1 millisecond new frame will be captured
    Key=cv2.waitKey(1)
    if Key==ord('q'):
        #release the camera
        cap.release()
        #destroy allwindows
        cv2.destroyAllWindows()
        break
```

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```

OUTPUT:


Pedestrians
2012-11-09 18:35:01
Pedestrians
Pedestrians
Pedestrians
IPC