**Module 8**

**Name: Upadhyay Sachin Naresh**

**Batch id: AIWDEOB 300821**

**Topic: Computer vision and image processing**

Write a code to track the pedestrian in a video. Use haar cascade pretrained model to achieve the same. (Consider any pedestrian walking video)

You can download dataset from here: <https://www.videvo.net/video/pedestrians-on-a-walkway/8175/>

# -\*- coding: utf-8 -\*-

"""

Created on Mon Oct 11 17:15:53 2021

@author: usach

"""

**#importing required libraries**

import cv2

**# Creating body classifier using haarcascade\_fullbody.xml**

body\_classifier = cv2.CascadeClassifier('C:/Users/usach/Desktop/AI assignments/Module 8/Dataset/haarcascade\_fullbody.xml')

**# Initiate video capture for video file**

cap = cv2.VideoCapture('C:/Users/usach/Desktop/AI assignments/Module 8/180301\_06\_B\_CityRoam\_01.mp4')

**# Loop once video is successfully loaded**

while cap.isOpened():

# Read first frame

ret, frame = cap.read()

**#converting video into Gray, where as RGB is time consuming**

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)

if cv2.waitKey(1) == 13:

break

cap.release()

cv2.destroyAllWindows()