

DMET 1002 – Advanced Media Lab
Final Project

Object detection, Extraction and Motion Tracking

Project Description:

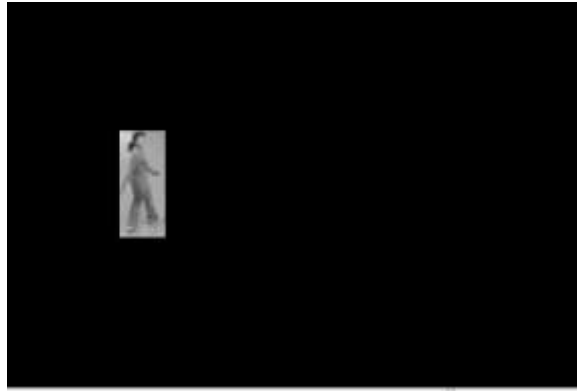
For object detection and tracking, there exists multiple algorithms to tackle the issue using the successive video frames.

In this project, you are asked to implement moving object detection and then apply a motion tracking algorithm. Then, output a video for each tracked object, the final output should have multiple videos with each video having only one object and the rest of the image is black.

Task 1

You need to follow the following steps in order to perform the prior mentioned task:

1. Read the video and extract the different video frames into images.
2. Convert the video frames from RGB to Grayscale.
3. Find and use any predefined algorithm capable of detecting and classifying people within images.
4. Use the algorithm to draw bounding boxes around the objects
5. Track the objects within the scene
6. Extract each tracked object within a separate video. (an example is attached below)
7. The output should be a number of videos according to the tracked objects (ex: 2 tracked objects = 2 output videos)
8. The output videos must be RGB



Submission Details:

The deadline for the submission is 9/6/2022

Your code is to be submitted along the output videos.

Any similarity between submissions would result in a cheating case.

The project can be done within teams of 2

Your project should be sent as google drive link to this email:

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Good Luck 😊