UNIVERSITY OF AVEIRO
DEPARTAMENT OF ELECTRONICS, TELECOMUNICATIONS AND INFORMATICS

Computer Vision (2016/2017)

Lecture 09

1. Explore the OpenCV example of Lucas-Kanade optical flow algorithm. Adapt the referred example to detect moving objects in a static scene, considering also that the camera is fixed. Try also to detect moving objects when the camera is also moving at constant speed.

2. Implement a program to capture video from your digital camera or or load a video file and develop an algorithm to perform background/foreground separation. Start by a supervised solution where the user can specify what is the background frame. Then improve your solution in order to detect automatically the background.

3. Implement a program to capture video from your digital camera or or load a video file and explore the OpenCV algorithms to perform object tracking. Consider that the camera and the background is fixed and there is one or more moving object in the scene.

4. Write a report about the experiences done in this class. It should contain an example of the images displayed in each exercise, as well your comments about them.