Gebze Technical University
Department of Computer Engineering
BIL 665 / BIL 463
(Introduction to) Computer Vision
Fall 2016
HW4
Jan 5th 2017
No late submissions

In this homework, you will recognize and count vehicles on a road using a surveillance camera. The videos that you will use for this HW can be seen at
https://www.youtube.com/watch?v=PNCJQkvALVc

Download the video in HD 1080p format.

You will count the number of vehicles, identify their types (trucks, cars, buses, minivans) and print this information at the top of the screen in real time for the marked lane shown below. Here are the steps that you may follow

- Estimate the background using OpenCV routines.
- Find the foregound.
- Handmark vehicles for at least 10 minutes of video for machine learning training.
- Use HOG + SVM classification for vehicle recognition and classification.

Write a 3 page report that discusses your algorithm and your performance results.