Head:	Dr. A. Kouvelas
Topic:	**Identification of car-following and lane changing patterns in empirical data**
Assistant:	M. Makridis
Registration:	www.ivt.ethz.ch/en/studies/downloads/assignments.html#registration

Pneuma is an experiment aiming to create the most complete urban dataset to study congestion. Pneuma offers the opportunity to study drivers' and vehicles' behavioral pattern in a dense urban environment, i.e. driver aggressiveness, car-following and lane changing. This project is about analyzing the Pneuma dataset to identify the dynamic car-following (leader-follower) or free-flow vehicles in space and time, as well as record the vehicles' lane change operations. Analysis should result to clustering of car-following behaviors (aggressive-normal-timid drivers), identify common lane-changing locations with respect to the network and provide an updated version of the dataset.

Links:	https://open-traffic.epfl.ch/
Additional remarks:	Good skill in Python programming is essential. Familiarity with road transport systems, traffic flow and traffic simulation is a plus. Registration for this project work takes place directly via the professorship. Interested students should contact the supervisor Dr. Anastasios Kouvelas, kouvelas@ethz.ch.
Minimum credits:	11 ECTS
Recommended lectures:	-