



Kolloquium des Lehrstuhls für Verkehrstechnik

Freitag, den 17. April 2015

Freeway Traffic Management in the Era of VACS

Vehicle Automation and
Communication Systems

Prof. Markos Papageorgiou

Dynamic Systems and Simulation Laboratory,
Technical University of Crete, Chania, Greece



Freeway traffic congestion has a strong economic and social impact in and around densely inhabited areas. A significant and growing interdisciplinary effort by the automotive industry, as well as by numerous research institutions, has been devoted in the last decades to planning, development, testing and deployment of a variety of Vehicle Automation and Communication Systems (VACS) that are expected to revolutionise the features and capabilities of individual vehicles within the next decades. If exploited appropriately, the emerging VACS may enable sensible novel freeway traffic management actions aiming at mitigating traffic congestion and its detrimental implications. The presentation starts with a brief introduction to the rationale and impact of freeway traffic management, along with an overview of expected changes in the years and decades to come. Existing, planned and emerging VACS, which have an impact on the traffic flow characteristics, are discussed and classified; and potential implications for future traffic management are presented. The related research needs and specific tasks and challenges are identified and commented. Preliminary related results referring to (microscopic and macroscopic) traffic flow modelling, traffic state estimation, system architecture, local and network-wide control tasks and approaches are briefly outlined.



Technische Universität München
Arcisstraße 21
80333 München

Zeit:
10:00 Uhr - 12:00 Uhr



Lehrstuhl für Verkehrstechnik
Prof. Dr.-Ing. Fritz Busch
Tel: +49.89.289.22438 / www.vt.bgu.tum.de

Ort:
Lehrstuhl für Verkehrstechnik
Arcisstraße 21
80333 München