IVT - Seminar

"Traffic Signal Controls: Experiences from Switzerland and abroad"
by Thomas Riedel

Tuesday, November 24th, 2015, 10:00-11:00hr
HIL F36.1; ETH Hönggerberg, Zürich

Abstract:
Traffic control is often a neglected subject in the ITS world. It is rare to come across a formalized approach to measure traffic control quality or to formulate traffic control improvements at the intersection or network area level. As stated by control theory, the system to be controlled must be observable, controllable, and there must be an objective function that could be formulated by quality criteria.
This presentation will provide a brief overview of the topic using examples from recent projects and development activities within these different fields:

- How to estimate the actual queue length based on loop coil detection only?
- How to merge detector data with FCD information?
- How to develop a traffic control program without programming, i.e. using parameters only?
- How to do public transport priority from single vehicles to crowded intersections and how to measure its control quality?
- How to do network control with local intelligent controllers?

Presenter's bio:
Thomas Riedel graduated in 1994 with a Sc.D. in control theory applied to traffic systems. He also holds degrees in electrical engineering and telecommunications, all from ETH Zurich. Mr. Riedel currently works at Adaptive Traffic Control AG and Verkehrs-Systeme AG, both Switzerland-based, and CS&S Delineate in Beijing. He is especially interested and conducts research in traffic observation (including plausibility checking and data merging), traffic control quality measurement, and purely parametric local and area traffic control.

Organizer: Dr. Monica Menendez (monica.menendez@ivt.baug.ethz.ch)
No reservation is required.

IVT Institut für Verkehrsplanung und Transportsysteme
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