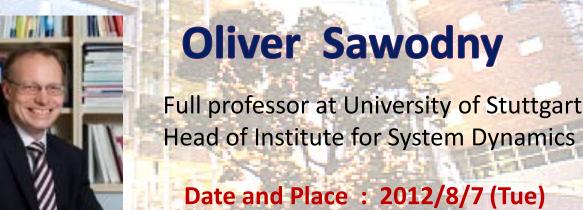
NL Seminar 2012

Modelbased Approaches for Control and Optimization Strategies in Automotive Engineering

16:30-18:00 (14-211)



## **Abstract:**

In the talk three different examples of model-based control design and optimization strategies are presented. At first a model based approach to design a control for a dual clutch gear box is presented. Dual clutch gear boxes are able to simulate the same functionalities than automatic transmission gear boxes without the losses of the torque converter. Secondly a cooperation project concerning to active vehicle suspension systems is presented, which include a predictive element to configure the spring-damper system of the vehicle suspension. Lastly, at the example of optimization based control of electric hybrids the approach by suitable model predictive control methods is presented.

## About the Speaker:

F	1986-1991	Studying electrical engineering at University of Karlsruhe
	1991-1995	Second studies in economy at FernUniversität Hagen
I	1996	PhD degree at University of Ulm
	1996-2001	Assistant professor at department of measurement, control, and
		microtechnology at university of Ulm
	2002-2005	Full professor at TU Ilmenau
	Since 2005	Full professor at University of Stuttgart Head of Institute for System Dynamics

Faculty of Science and Engineering

## Toru Namerikawa



Tel : 045-566-1731, Mail : <u>namerikawa@sd.keio.ac.jp</u> URL : http://www.namerikawa.sd.keio.ac.jp/