

# Institute of Automation and Control Graz University of Technology



## 20. Styrian Workshop on Automatic Control

September 11-13, 2017, Schloss Retzhof, Austria

#### **CONFERENCE PROGRAM**

#### Monday 11.09.2017

17:00 – 18:00	Registration
18:00	Dinner

### Tuesday 12.09.2017

08:30 - 08:40	Opening
08:40 – 09:20	Johannes Schiffer, Florian Dörfler, Emilia Fridman Robustness of Distributed Frequency Control in Modern Power Systems: Time Delays & Dynamic Communication Topology
09:20 – 10:00	Christoph Weise, Kai Wulff, Johann Reger Fractional-Order Observer for Integer-Order LTI Systems
10:00 – 10:30	Coffee Break
10:30 – 11:10	Nikolaus Euler-Rolle, Stefan Jakubek Longitudinal tunnel ventilation control: Dynamic feedforward control and non-linear disturbance observation
11:10 – 11:50	Anastasiia Galkina, Kurt Schlacher  Model Predictive Control with Flatness Based Linear  Programming for the Single Mast Stacker Crane
12:00 – 13:30	Lunch
14:00 – 22:00	Social Program

#### Wednesday 13.09.2017

08:30 – 09:10	Gernot Druml Estimation of the Earthfault Distance in a 110-kV-Network using Traveling Waves – Results from Field Tests
09:10 – 09:50	Florian Kraus, Reinhard Reichel Automated Design, Instantiation and Qualification of complex, highly fault tolerant Avionic Systems
09:50 – 10:30	Daniel Watzenig Multi-sensor data fusion for automated driving

10:30 – 11:00	Coffee Break
11:00 – 11:40	Daniel Muschick, Viktor Unterberger, Markus Gölles  Model-based control of hydronic networks using graph theory
11:40 – 12:20	Richard Seeber, Markus Gölles, Nicolaos Dourdoumas, Martin Horn Model-Based Reference Shaping for Biomass Grate Boilers
12:30 – 14:00	Lunch
14:00 – 14:40	Leonid Fridman Is It Reasonable to Substitute Discontinuous SMC by Continuous HOSMC?
14:40 – 15:20	Alexander Barth, Johann Reger  Adaptive Extension for Higher Order Sliding Mode Controllers
15:20 – 15:50	Coffee Break
15:50 – 16:30	Mohammad Ali Golkani, Markus Reichhartinger, Martin Horn Design of Saturated Sliding Mode Control with Continuous Actuating Signal
16:30 – 17:10	Kurt Schlacher, Markus Schöberl A Check of Flatness for time continuous Systems by Computer Algebra Methods