Poster Session II — Control Applications

When: June 3, 2014 16:00–17:00
Where: Colosseum
Chair: Gustaf Hendeby

1. **Delautomatiserad kranspetsstyrning för skotare**
   Anders Hultgren, Blekinge Institute of Technology
   Matz Lenells, Linnaeus university
   Martin Nyström, Rottne Industri AB

2. **Scale-model Articulated Vehicle With Individual Wheel Drives For Traction Control Studies**
   Fredrik Broström, Luleå University of Technology
   Ulf Andersson, Luleå University of Technology
   Thomas Gustafsson, Luleå University of Technology

3. **Real-Time Energy Management of a Plug-In Hybrid Electric Vehicle Based On A Closed Form Minimization Of The Hamiltonian**
   Viktor Larsson, Chalmers
   Lars Johannesson, Viktoria Swedish ICT
   Bo Egardt, Chalmers

4. **Uncertainty Bounds Violation Scheme For Fault Detection In Induction Motors: Application To Broken Rotor Bars**
   Mohammed Mustafa, Lulea University of Technology
   George Nikolakopoulos, Lulea University of Technology
   Thomas Gustafsson, Lulea University of Technology

5. **Modeling of a Non-Ideal Current Tracking in a Standard Amplifier For Motor Control**
   I Yung, Ålö AB and Umeå University
   Stanislav Aranovskiy, ITMO University
   Leonid Freidovich, Umeå University

6. **Automation of Front End Loaders. Case Study: Self Leveling**
   I Yung, Ålö AB and Umeå University
   Leonid Freidovich, Umeå University
   Tomas Nygren, Ålö AB

7. **Decision-Making and Control for Automated Highway Driving**
   Julia Nilsson, Volvo Cars and Chalmers

8. **Rapidly Expanding Random Trees: A Solution for the Iqmatic Project?**
   Niclas Evestedt, Linköpings Universitet
   Daniel Axehill, Linköpings Universitet
   Fredrik Gustafsson, Linköpings Universitet

9. **Short-Term Production Planning for District Heating Networks with Jmodelica.org**
   Per-Ola Larsson, Modelon AB
   Stephane Velut, Modelon AB
   Johan Windahl, Modelon AB
   Linn Saarinen, Vattenfall AB
   Katarina Boman, Vattenfall AB

10. **Temperature Modelling and Control of the Selective Catalytic Reduction System**
Soma Tayamon, Uppsala University
Anders Larsson, Scania AB
Björn Westerberg, Scania
Bengt Carlsson, Uppsala University

11. **Temperature Control of two Interacting Rooms with Decoupled PI Control**
Meike Stemmann, Lund University
Anders Rantzer, Lund University

12. **Towards Autonomous Heavy Duty Vehicles**
Pedro F. Lima, KTH Royal Institute of Technology
Jonas Mårtensson, KTH Royal Institute of Technology

13. **Control of HVAC Systems in Sweden: Current Status and Future Directions**
Alessandra Parisio, Royal Institute of Technology (KTH)
Marco Molinari, Royal Institute of Technology (KTH)
Damiano Varagnolo, Luleå Institute of Technology (LTH)
Karl Henrik Johansson, Royal Institute of Technology (KTH)

14. **A Control-Theoretical Approach to Thread Scheduling for Multicore Processors**
Alberto Leva, Politecnico di Milano
Roberto Carone, Politecnico di Milano
Alessandro Vittorio Papadopoulos, Lund University

15. **Load-balancing for Cloud Applications with Brownout**
Jonas Dürango, Dept. Automatic Control, Lund University
Manfred Dellkrantz, Dept. Automatic Control, Lund University
Martina Maggio, Dept. Automatic Control, Lund University
Cristian Klein, Dept. Computing Science, Umeå University
Alessandro Vittorio Papadopoulos, Dept. Automatic Control, Lund University
Francisco Hernández-Rodriguez, Dept. Computing Science, Umeå University
Erik Elmroth, Dept. Computing Science, Umeå University
Karl-Erik Årzén, Dept. Automatic Control, Lund University

16. **Control Strategies for Predictable Brownouts in Cloud Computing**
Martina Maggio, Lund University
Cristian Klein, Umeå University
Karl-Erik Årzén, Lund University

17. **Systematic Control Configuration Selection of Secondary Heating Systems — A Case Study**
Miguel Castaño Arranz, Luleå University of Technology
Wolfgang Birk, Luleå University of Technology
Petter Asplund, Optimation AB
Johan Karlsson Rönnberg, K.Al. Des

18. **Energy Optimization of a High Consistency Refiner Process**
Patrick Höhn, Luleå University of Technology
Wolfgang Birk, Luleå University of Technology

19. **Recent Advances in Real-Time Economic NMPC for Wind Turbine Control**
Sebastien Gros, Chalmers
Rien Quirynen, KU Leuven
Moritz Diehl, University of Freiburg

20. **Model-free Approaches for the Energy Minimization of Robot Trajectories**
Oskar Wigström, Chalmers University of Technology
Bengt Lennartson, Chalmers University of Technology

21. **Sensorless Force Control for Industrial Robots**
Andreas Stolt, Department of Automatic Control, LTH, Lund University
Anders Robertsson, Department of Automatic Control, LTH, Lund University
Rolf Johansson, Department of Automatic Control, LTH, Lund University

22. **An Optimization-Based Approach to Human Body Motion Capture Using Inertial Sensors**
Manon Kok, Linköping University
Jeroen Hol, Xsens Technologies B.V.
Thomas Schön, Uppsala University

23. **Target Coverage and Selectivity in Field Steering Brain Stimulation**
Ruben Cubo, Uppsala University
Mattias Åström, Linköping University
Alexander Medvedev, Uppsala University

24. **Application of Machine Learning Methods for Fault Detection in Wastewater Treatment Plants**
Tatiana Chistiakova, Uppsala University
Jesús Zambrano, Uppsala University
Bengt Carlsson, Uppsala University

25. **A Freely Available Interactive PID Learning Module**
Alfred Theorin, Lund University
Charlotta Johnsson, Lund University

26. **Robust Loop-shaping Control of a Voltage Source Converter Attached To A Weak AC-grid**
Yujiao Song, Chalmers University of Technology
Claes Breitholtz, Chalmers University of Technology

27. **Experimental Evaluation of a Modified Obstacle Based Potential Field Algorithm For An Off-road Mobile Robot**
Rickard Nyberg, Luleå University of Technology, Control Engineering Group
Dariusz Kominiak, Luleå University of Technology, Control Engineering Group
George Nikolakopoulos, Luleå University of Technology, Control Engineering Group

28. **Incident Parameter Scheduled Local Ramp Meter Control**
Azita Dabiri, Chalmers University of Technology
Balazs Kulcsar, Chalmers University of Technology