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 Johansson, 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-Rodríguez, 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, Optimization AB*
    *Johan Karlsson Rönnberg, K.A. 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

  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