First announcement and call for papers and contributions

The 8\textsuperscript{th} AAC 2016 symposium will be held at Kolmården Wildlife resort (Vildmarkshotellet) near Norrköping City in Sweden. The symposium dates are:

Welcome reception – Sunday, June 19  
Symposium – Monday, June 20 – Thursday lunch, June 23,  
Farewell lunch – Thursday lunch, June 23

In addition to the main symposium there will be a pre-symposium tutorial covering both basics and emerging areas within Automotive Control and it will be organized at Linköping University Campus, Saturday, June 18 - Sunday, June 19. Transportation will be arranged from the pre-symposium to the Welcome reception.

Suggestions for topics and contributions are welcome.

Submission deadlines and time plan

Prospective authors are requested to submit their contributions as a pdf file in IFAC paper format through IFAC Paperplaza conference manuscript management system http://ifac.papercept.net. The templates for manuscripts are available at the website and the deadlines for submissions are shown below

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<th>Category</th>
<th>Deadline</th>
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<tr>
<td>Draft papers:</td>
<td>October 1, 2015</td>
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<td>Acceptance notification:</td>
<td>January 15, 2016</td>
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<td>Final papers:</td>
<td>February 15, 2016</td>
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<td>Early registration:</td>
<td>January, 2016</td>
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<td>Fee increase:</td>
<td>April 1, 2016</td>
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Information about the symposium will be announced on: http://tc.ifac-control.org/7/1/

About the venue

Vildmarkshotellet is the hotel of Kolmården, located by the wildlife park with an amazing view across the lake Bråviken. The venue will offer a one site for all symposium attendees, providing ample of opportunity to discuss, interact and network.
Scope of the Symposium

The symposium will cover a wide range of advanced automotive control, and includes but is not limited to the following topics.

1. Combustion Engine Control - Conventional Drive Train
   - Combustion Modeling and Control: Spark Ignition, Compression Ignition, Low Temperature Combustion
   - Exhaust Gas Aftertreatment: Catalyst and DPF models, Thermal Management, SCR control, Regeneration Control
   - Gas Exchange Processes: Turbocharging, Supercharging, Variable Valve Technology
   - Model-based Diagnostics

2. Alternative Power Systems
   - Energy Management
   - Energy Storage Systems: Electrochemical Systems, Supercapacitors, Hydrogen Storage, Charging and Infrastructure
   - Fuel-cells, Hydrocarbon Fuel Reforming, Hydrogen Combustion
   - Battery Model and Battery Control
   - XEV (HEV, EV, FCEV, etc.)/Solar-Powered Vehicles
   - Alternative Hybrid Vehicles: Hydraulic Hybrids, Air Hybrids, Kinetic Energy Hybrids (e.g. Flywheel)

3. Vehicle Dynamics and Control
   - Active Chassis Systems: Brake, Steering, Suspension Systems
   - Integrated Motion Control: Direct Yaw Control/Electronic Stability Control, 4 Wheel Steering, X-by-Wire, Active Suspensions and Roll Bars
   - Vehicle State Estimation: Sensor Development, Side Slip Angle Observation, Tire and Friction Estimation

4. Active Safety and Driver Assistance Systems
   - Adaptive Cruise Control, Heading Control, Lane Keeping, Driver Warning Systems, Systems Based on Car-to-X-communication
   - Autonomous Driving and Collision Avoidance: Sensor Fusion, Modelling of the Environment, Control Architectures
   - Intelligent Vehicles and Robotics Technology in Vehicles
   - Human Factors in Driver Dynamics or Driver Assistance Systems

5. Design and Engineering
   - Diagnosis
   - Functional Safety and Standardization
   - Hardware-in-the-loop Simulation
   - Model-based Calibration
   - Plant Modelling and System Identification
   - Rapid Control Prototyping
   - Security and Dependability
   - Vehicular Power Networks and Inter-Vehicular Networks

Looking forward to meeting You in Kolmården!

Lars Eriksson, Linköping University, Sweden - NOC, Chair
Tielong Shen, Sofia University, Japan - IPC, Chair
Per Tunestål, Lund University, Sweden - Editor