CALL FOR PAPERS

# DYCOPS-CAB 2016

## 11th IFAC Symposium on Dynamics and Control of Process Systems, including Biosystems

## Trondheim, Norway
## 6-8 June 2016

Norway: Land of the midnight sun

Organized by:

- Norwegian University of Science and Technology (NTNU)
- Norwegian Society of Automatic Control (NFA)
- IFAC Technical Committee on Chemical Process Control (6.1)
- IFAC Technical Committee on Biosystems and Bioprocesses (8.4) (co-sponsor).

Deadlines
15 OCT 2015: Submission of draft paper, invited session & workshop proposals
31 DEC 2015: Acceptance Notification
15 FEB 2016: Submit final papers
1 APR 2016: Final program available

**History of DYCOPS-CAB**

The DYCOPS symposia have a long history and were initiated in 1986 under the name DYCORD (Dynamics and Control of Chemical Reactors, Distillation Columns and Batch Processes) in Bournemouth (UK). CAB (Computer Applications in Biotechnologies) originates from a series of events that started in the mid 1970's in Dijon, France. Starting from 2016, DYCOPS and CAB are merged into a single three-day conference. Thus, in the new format, sessions that were traditionally held under the DYCOPS and CAB umbrella will be held in parallel.

**Process control in IFAC**

The International Federation of Automatic Control (IFAC) hosts one major process control event every year, and the most recent ones are:

- 2007 DYCOPS-CAB in Cancun, Mexico
- 2008 IFAC World Congress in Seoul, Korea
- 2009 ADCHEM in Istanbul, Turkey
- 2010 DYCOPS-CAB in Leuven, Belgium
- 2011 IFAC World Congress in Milan, Italy
- 2012 ADCHEM in Singapore
- 2013 DYCOPS-CAB in Mumbai, India
- 2014 IFAC World Congress in Cape Town, South Africa
- 2015 ADCHEM in Whistler, Canada

More information: www.dycops2016.org

# International Program Committee (IPC)

Hector Budman, Canada (IPC chair)
Ilse Smets, Belgium (IPC co-chair)
Krister Forsman, Sweden (IPC industrial co-chair)

**Area co-chairs**
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Manabu Kano, Japan. Modelling and System Identification
Vinay Kariwala, India. Process Optimization and Plantwide Control
Maria Klapa, Greece. Metabolic Engineering and Systems Biology
Ahmet Palazoglu, USA. Performance and Fault monitoring
Gabriele Pannocchia, Italy. Batch Processes
Marie-Noëlle Pons, France. Environmental and Energy biosystems
Udo Reichl, Germany. Bioreactor Technology
Lakshminarayanan Samadevan, Singapore. Process Planning and Scheduling

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Biosystems stream
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Nadi Bar (NOR)
Olivier Bernard (FRA)
Anton van Boxtel (NLD)
Eric Bullinger (GER)
Benoit Chachuat (GBR)
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Isabelle Queinnec (FRA)
Isabel Rocha (POR)
Ivan Simeonov (BGR)
Hong Yue (UK)

## Specific topics for the 2016 DYCOPS-CAB

1. **Offshore and subsea process systems**
   - **Anti-slug and artificial lift control**
   - **Managed pressure drilling**
   - **Autonomous control**
2. **CO2 capture**
3. **Energy:**
   - **Energy for oil and gas**
   - **Energy systems**
   - **Energy from waste**
4. **Control applications to nanotechnology**
5. **Industry session: Discussion and case papers**

## General areas covered by the DYCOPS-CAB symposium series

• Process Control
• Dynamic modelling and simulation for control and operation
• Interaction between design and control
• Modeling and identification
• Batch Process Modeling and Control
• Process and Performance Monitoring
• Fault detection, diagnosis, supervision and safety
• Integration between scheduling and control
• Process optimization
• Plantwide control
• Model predictive control
• Scheduling, coordination & optimization
• Process control education
• Data mining tools
• Sensors and soft sensors
• Process analytical technology (PAT)
• Systems biology, Synthetic biology, Metabolic flux modeling
• Metabolic engineering
Bio-applications:
• Microbial technology
• Industrial biotechnology
• Biopharmaceutical processes
• Biocatalysis (enzymatic reactions)
• Food engineering
• Waste water treatment processes
• Mammalian, insect and plant cell technology
• Bioenergy production (bioethanol, algae, anaerobic digestion)
• Biomedical applications

**National Organizing Committee**
- Sigurd Skogestad (NTNU, NOC chair)
- Lars Imsland (NTNU, NOC co-chair)
- Pål Kittilsen (Statoil, NOC industrial co-chair)
- Bjarne Foss (NTNU, Editor)