

Future Innovations in Process Systems Engineering

Third Symposium

June 20-23 2016

Aldemar Amilia Mare & Paradise Village
Kallithea, Island of Rhodes, Greece

What are the OPEN and UNSOLVED Problems?

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| First Day: | Integrating Plant-wide Control and Operations |
| Second Day: | Process Optimization for New Feedstocks and Energy Sources |
| Third Day: | Challenges and Innovations in Process Systems Engineering Education |

Our Mission

**Author three white papers
that define the open problems
and will impact future research**

and also enjoy the warm Dodecanese hospitality

First Day – Monday, June 20, 2016
“Integrating Plant-wide Control and Operations”

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|----------------------|---|
| 08:45 — 08:50 | Welcome and mission of the conference <i>Christos Georgakis, Tufts University, USA</i> |
| 08:50 — 09:00 | Mission of the day <i>Prodromos Daoutidis, University of Minnesota, USA</i> <i>Jay Lee, KAIST, Korea</i> <i>Developers and Co-Chairs</i> |
| | Morning Session: |
| 09:00 — 09:45 | “Plant-wide Control: The Critical Link in Integrated Decision Making Across Process Operations” <i>Sigurd Skogestad, Norwegian University of Science and Technology, Norway</i> |
| 09:45 — 10:30 | “Production Management as an Integrated Part of an Automation System” <i>Iiro Harjunkoski, Corporate Research Fellow, ABB AG, Germany</i> |
| 10:30 — 11:00 | Coffee Break |
| 11:00 — 13:00 | Short Presentations and General Discussion <i>Participants</i> Moderators: <i>Prodromos Daoutidis and Jay Lee</i> |
| 13:00 — 14:30 | Lunch Break |
| | Afternoon Session: |
| 14:30 — 15:30 | Detailed Definition of Unsolved Problems Breakout sessions in groups of 6 |
| 15:30 — 16:00 | Coffee Break |
| 16:00 — 16:30 | Reports from Breakout Groups |
| 16:30 — 19:00 | Free time |
| 19:00 — | Bus departure for the City of Rhodes (participation optional) |
| 19:30 — 23:30 | Promenade and individual dinners in local restaurants |
| 23:30 | Bus departs City of Rhodes for hotel |

Second Day – Tuesday, June 21, 2016
**"Process Optimization for New Feedstocks
and Energy Sources"**

- 08:50 — 09:00 Good morning and mission of the day
*Christos Georgakis and
Alexander Mitsos, RWTH-Aachen, Germany
Developer and Chair*
- Morning Session:**
- 09:00 — 09:45 **"An Industrial Perspective on Model-Based Optimization to
Address New Challenges"**
Norbert Asprion, BASF, Germany
- 09:45 — 10:30 **"On Single and/or Hybrid Feedstocks for the Production of Fuels,
Chemicals, and Electricity"**
Chris Floudas, Texas A&M University, USA
- 10:30 — 11:00** **Coffee Break**
- 11:00 — 13:00 **Short Presentations and General Discussion**
Participants
Moderator: *Alexander Mitsos*
- 13:00 — 14:30** **Lunch Break**
- Afternoon Session:**
- 14:30 — 15:30 **Detailed Definition of Unsolved Problems**
Breakout sessions in groups of 6
- 15:30 — 16:00** **Coffee Break**
- 16:00 — 16:30 **Reports from Breakout Groups**
- 16:30 — 20:30 **Free time**
- 20:30 — 23:30** **Informal Banquet**

Third Day – Wednesday, June 22, 2016
“Panel on Challenges and Innovations in
Process Systems Engineering Education”

08:50 — 09:00 Good Morning and Mission of the Day
Christos Georgakis and
Sebastian Engell, University of Dortmund, Germany
Developer and Chair

Morning Session:

Panelists:

- *Ignacio Grossman, CMU, USA*
- *R. Donald Bartusiak, ExxonMobil, USA*
- *Ian Cameron, University of Queensland, Australia*
- *Heinz A. Preisig, Norwegian University of Science and Technology, Norway*

09:00 — 09:20 First panel presentation
09:20 — 09:40 Second panel presentation
09:40 — 10:00 Third panel presentation
10:00 — 10:20 Fourth panel presentation

10:20 — 10:50

Coffee Break

10:50 — 13:00

General discussion

Moderator: *Sebastian Engell*

- Questions and answers among the panelists
- Questions from participants and answers from panelists
- Short presentations from the audience and general discussion

13:00 — 14:30

Lunch Break

Afternoon Session:

14:30 — 15:30

Detailed Definition of Unsolved Problems

Breakout sessions in groups of 6

15:30 — 16:00

Coffee Break

16:00 — 16:30

Reports from Breakout Groups

16:30 — 20:30

Free time

20:30 — 23:00

Formal Banquet