



**IPSEN**  
Industrial Process Systems  
Engineering Unit



## CAPE Forum 2017

6th to 8th September 2017

Royal Olympic Hotel, Athens, Greece

### Wednesday, September 6<sup>th</sup> (13:00– 18:00)

Registration 12:30 – 13:00

Light Lunch 13:00 – 14:00

Welcome (NTUA) 14:15

CAPE: a Circular Economy Perspective, F. Cecelja, Surrey,  
UK 14:30 – 15:30

Toward Engineering Sustainability: A Multiscale Complex  
Systems Approach, Y. Huang, WSU, USA 15:30 – 16:30

Tea / Coffee Break (16:30 – 17:00)

17:00 – 18:00 (15 + 5 min)

- DME Synthesis using a systems approach, N. Quirante, UA, Spain
- Cascade Models for Targeting and Synthesis of Total Water Networks, A. Nikolakopoulos, NTUA, Greece
- Total Site Analysis as a synthesis tool to select and integrate biomass valorization paths that subject to seasonal availability, K. Pyrgakis, NTUA, Greece

## Thursday, September 7<sup>th</sup> (09:30 – 17:30)

Enabling a Circular and Sustainable Economy – What Can We Learn from Traditional Practices, B. Bakshi, OSU, USA  
09:30 – 10:30

Circular Economy in the context of process integration, F. Maréchal, EPFL, Switzerland  
10:30 – 11:30

### Tea / Coffee Break (11:30 – 12:00)

12:00 – 13:00 (15 + 5 min)

- Design of circular economy plants: the case of textile biorefineries F. Barla, NTUA, Greece
- Thermo-economic design of biomethane production from animal manure, T. Damartzis, EPFL, Switzerland
- Investigating the simultaneous process design and control of a membrane reactor for hydrogen production via methane steam reforming, A. S. Kyriakidis, CPERI/CERTH, Greece

### Lunch break (13:00 – 14:00)

A process integration approach for the biological production of biofuels using in-situ product recovery systems, A. L. Contreras, WUR, Netherlands  
14:00 – 15:00

Design of multiactor distributed processing systems, A. Rippa, Universidad, Uruguay  
15:00 – 16:00

### Tea / Coffee Break (16:00 – 16:30)

Speakers Panel Discussion  
16:30 – 17:30

19:00 Invited Speakers Dinner at Royal Olympic Hotel

## Friday, September 8<sup>th</sup> (10:00 – 13:45)

10:00 – 11:00 (15 + 5 min)

- Synthesis of algal biorefineries : The Dunaliella salina plant, M. Psycha, NTUA, Greece
- On the Impact of Working Fluid Mixtures in the Control Performance of Organic Rankine Cycles, T. Zarogiannis, AUTH / CERTH, Greece
- Life cycle assessment of bio-based processes at early design stages, P. Karka, NTUA, Greece

## Tea / Coffee Break (11:00 – 11:30)

11:30 – 12:30 (15 + 5 min)

- Semantic Service for Automatic Biorefining Model Discovery, E. Kalemi, Surrey, UK
- Semantically-Enabled CAPE Platform: The Case of Circular Economy Value Chain, E. Sioukrou, NTUA, Greece
- The power of Data for optimizing sustainable Supply Chains in Biomass Symbiotic Networks: The AI4B Project, A. Gentimis, ATHENA RIC, Greece

Closing Words (Prof Antonios Kokosis, IPSEN-NTUA) 12:30

Lunch 12:45 – 13:45

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Contact:

Industrial Process Systems Engineering Unit, National  
Technical University of Athens, Chemical Engineering  
School, Heroon Politechniou 9 GR – 15 780

E: capeforum2017@gmail.com, Tel: + 30 210 772 3227, Fax:  
+ 30 210 772 3228