

New EFCE journal to focus on Sustainability

A new journal to be published by the European Federation of Chemical Engineering (EFCE) and the Institution of Chemical Engineers (IChemE), in partnership with Elsevier, will provide a leading platform for publishing high-quality interdisciplinary research related to sustainability.

Sustainability Production and Consumption (SPC) will focus on the importance of sustainability in sectors as diverse as retail, tourism, transport, health, food, energy, construction and the chemical and process industries.

The new journal will be launched at the tenth European Congress of Chemical Engineering (ECCE 10) in Nice, France, September 2015, with Adisa Azapagic, Professor of Sustainable Chemical Engineering at the University of Manchester, UK, and co-chair of EFCE's Sustainability Section, as Editor-in-chief.

Adisa will be joined on the editorial board by leading experts from Denmark, Germany, Italy, Sweden, Switzerland, UK and the USA.

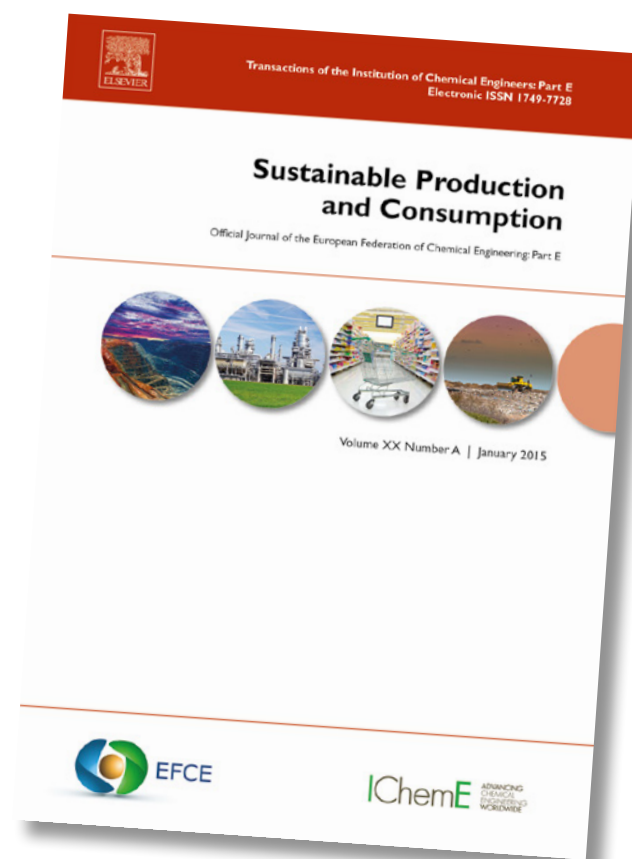
Papers from all fields of engineering, natural and social sciences, as well as humanities, are encouraged to share their ideas, policy perspectives and thoughts on the emerging field of sustainable production and consumption.

Adisa Azapagic said: "Interdisciplinarity is particularly important as sustainability issues associated with production and consumption are not purely engineering or social science



problems – they are 'wicked' problems. Solving 'wicked' problems requires understanding both the technical complexity and social intricacy within wider environmental, economic and political frameworks.

"So far, the field of sustainable production has been



largely confined to engineering and natural sciences while sustainable consumption is mainly in the realm of social sciences. This journal aims to break these disciplinary barriers by providing a world-leading forum for discussing sustainability issues from different perspectives, helping to identify sustainable solutions for both production and consumption."

The first issue, which will take a ground breaking approach to the global challenges of providing sustainable supplies of energy, food and water, will be titled: *Sustainability issues in the energy-food-water-nexus*.

The call for papers for this special issue is now open, with the deadline for submission on **28 February 2015**.

For more information on submission of manuscripts for Sustainable Production and Consumption, visit: <http://www.journals.elsevier.com/sustainable-production-and-consumption>

Events:

7th European Summer School on Electrochemical Engineering (ESSEE 2015)

Leeuwarden, The Netherlands, 22–26 June 2015
(EFCE Event No. 729)

ESSEE 2015 is organised once every three years under the auspices of the European Federation of Chemical Engineering (EFCE) and its Working Party on Electrochemical Engineering. During the Summer School, PhD students and other young researchers meet to learn about advanced conceptual topics within electrochemical engineering that will help them with their current and future research. The diverse programme includes lectures delivered by renowned scientists from across Europe, Asia and USA, as well as a student poster session (with award), non-technical presentations on the effectiveness as a PhD student and presentation skills, a hands-on lab tour at Wetsus, and many social activities.

The Summer School is limited to 60 participants, so please register in time at: <http://www.essee2015.org/>

Call for Nominations Chemical Reaction Engineering

For the third time, EFCE is pleased to announce the call for nominations for its **Excellence Award in Chemical Reaction Engineering**. This award has been instituted to recognise an outstanding PhD thesis within the field of chemical reaction engineering.

The award comprises of a certificate, cash prize of €1,500, travel grant up to €500 and fee waiver to attend the European Symposium on Chemical Reaction Engineering (ESCRE 2015), where the award will be presented. ESCRE 2015 will be held in Fürstfeldbruck, Germany, from 27 to 30 October 2015.

Nominations may be submitted by any PhD supervisor at a university or PhD-awarding institution in an EFCE Member Country. The PhD thesis nominated must address a topic relevant to the field of chemical reaction engineering. PhD theses defended and published between 1 January 2012 and 31 December 2014 may be proposed for evaluation.

Closing date for nominations: **31 March 2015**

Further information can be obtained at: <http://www.efce.info/ExcellenceAwardCRE>

Membrane Engineering

Launched in 2009 by EFCE's Section on Membrane Engineering, the federation is pleased to present the call for nominations for the **2015 Excellence Award in Membrane Engineering**. This award was established to recognise a PhD thesis or paper(s) of a young researcher which demonstrates the most outstanding contribution to research and/or practice in membrane engineering in the process industries.

The award consists of a certificate, cash prize of €1,500 and a travel grant up to €500 to attend the Euromembrane 2015 Conference, which will be held in Aachen, Germany, from 6 to 10 September 2015.

Nominations may be submitted by any PhD supervisor at a PhD-awarding institution in an EFCE Member Country or by an individual member of an EFCE Member Society. Only PhD theses or papers published between 1 January 2012 and 31 December 2014 are eligible for nomination.

Closing date for nominations: **31 March 2015**

For further information, please visit: <http://www.efce.info/ExcellenceAwardMembraneEngineering>

Process Intensification

EFCE and its Working Party on Process Intensification are pleased to announce the call for nominations for two of its awards:

EFCE Excellence Award in Process Intensification – this biennial award recognises an outstanding PhD thesis in the field of process intensification. The winner will be presented the award, which comprises of a €1,500 cash prize and certification, at a special session during the fifth European Process Intensification Conference (EPIC 5). The winner will also be invited to give a presentation following the award ceremony.

Theses in the area of process intensification supervised at a university or PhD-awarding institution of an EFCE Member Country are eligible for nomination. The nominator should be the supervisor of the PhD candidate. The candidate's thesis must have been defended between 16 December 2012 and 31 December 2014.

Closing date for nominations: **1 May 2015**

More information on this award at: <http://www.efce.info/ExcellenceAwardProcessIntensification.html>

Industrial Innovations in Process Intensification

The federation is pleased to announce this award for the first time which will be awarded for an outstanding industrial application in the field of process intensification. The award will comprise of a special sculpture, a travel grant up to the value of €500 and fee waiver to attend the EPIC 5 conference where the award will be presented.

Any employee or team of employees of a company with operations in an EFCE Member Country is eligible for nomination. The nominated industrial innovation must be at either pilot-scale stage or full-scale industrial operation, and must have been developed between 1 January 2013 and 31 December 2014.

Closing date for nominations: **1 May 2015**

For further information about this new award, visit: http://www.efce.info/PI_Award_Industrial_Innovation.html

EPIC5 which will be held in Nice, France, on 27 September to 1 October 2015 in conjunction with the tenth European Congress of Chemical Engineering (ECCE10) and the third European Congress of Chemical Engineering (ECAB3).

Events:

14th European Symposium on Comminution and Classification (ESCC 2015)

Gothenburg, Sweden,
7 – 10 October 2015
(EFCE Event No. 731)

The European Symposium on Comminution and Classification (ESCC 2015) is arranged for the 14th time in 53 years and will be hosted for the second time in Sweden. The organizers, Chalmers University of Technology, have a long tradition of research within coarse comminution and classification. The university is also a member of the Global Comminution Collaborative (GCC). ESCC is initialized by EFCE and its Working Party on Comminution and Classification.

Unifying theme: *Sustainability and energy efficiency*

Conference topics: (A) Comminution and classification of minerals and ores; (B) Grinding, dispersion and classification of fine particles; (C) Fundamentals, modelling and simulation; (D) Innovation and new technologies; (E) Industrial operation perspectives. The topic "Industrial operations perspective" has been included to bridge the gap between academia and industry through discussion and presentations on industrial case studies and implementations.

Visit the symposium website for more information at: <http://www.escc2015.org>

Event Report from CHISA 2014: Chemical engineering in the heart of Europe

Chemical engineers gathered in the Czech Republic at the end of August 2014 for one of the most successful CHISA congresses to date. CHISA is partly organised under the auspices of the EFCE.

Nine hundred participants from over 60 nations attended the 21st International Congress of Chemical and Process Engineering (CHISA), held in conjunction with the 17th Conference on Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reductions (PRES), in Prague from 23 – 27 August 2014.

The four plenary lectures attracted strong interest, with Professor Wei Ge of the Chinese Academy of Sciences, explaining the use of supercomputers for multi-scale process simulation. His research group has built a 'DIY' supercomputer that delivers effective





Left to right: Professors Phil Westmoreland, Jiří Drahoš, Jiří Klemeš

simulation of chemical process and reactors using processors similar to those used in computer games.

Professor Phil Westmoreland of North Carolina State University, outlined his view that the chemical engineering profession has entered a new Golden Age with five signs apparent. He also argued that worldwide reserves of shale gas present a great opportunity for chemical engineers, but he posed the question "Can we deal with this abundance?"

The PRES plenary lecture was delivered by Professor Henrik Lund, of Aalborg University, who described Denmark's shift away from fossil fuels. Denmark aims to switch to 100 per cent renewable energy by 2050. Lund argued that the target is more than achievable if a smart energy systems approach is adopted.

The final plenary was presented by AstraZeneca's Director of Product Development, Jon-Paul Sherlock. He told delegates that he had felt like 'A stranger in a strange land' when he first joined the pharmaceutical industry as a chemical engineer. But Sherlock contended that times have now changed. The new strategic paradigm of quality by design in drug development and manufacturing in a more patient focused and innovative industry demands more chemical engineering expertise.

Congress chair and President of the Czech Society of Chemical Engineering and Academy of Sciences Czech Republic, Professor Jiří Drahoš, said: "The joint congress addressed the full spectrum of chemical and process engineering practice, including the current trends and future needs. CHISA provides a platform for chemical engineers to exchange

ideas and collaborate on an international level.

"In addition to the excellent plenary speakers, the meeting heard from more than 70 keynote lecturers and over 1,000 oral and poster presenters. This was a great achievement for the congress and the profession."

Professor Jiří Klemeš, Co-Chair of PRES 2014, also commented: "One of the particular highlights of the congress was the special symposium organised jointly between the EFCE Section on Sustainability and AIChE's Institute of Sustainability. Delegates enjoyed a fruitful discussion on sustainability metrics and how we can reduce the environmental impact of the process industries."

Selected papers from the congress will be published in a number of special issues of international research journals. The next CHISA Congress will take place on 21 – 25 August 2016 in Prague.

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