

Working Party and Section News

Energy for chemical engineering – Chemical engineering for energy

EFCE to create the EFCE energy section

The energy transition and the mitigation of the CO₂ emissions are key challenges for the chemical engineering community. Energy is the driver of the chemical processes. In order to mitigate CO₂ emissions and environmental impacts, industry is seeking to increase the energy and resources efficiency of their processes. Chemical engineering is also a key discipline for the future of the energy system. This covers the energy conversion and the power production, the CO₂ capture and its reuse and the integration of renewable energy sources considering biofuels, bio-products and energy management and storage. EFCE has therefore decided to create the energy section to support the key contributions of chemical engineering in the energy sector and the key aspects of energy for the chemical industry.

The goal of the section will be to promote the exchange of knowledge, expertise and experiences on energy related aspects in chemical engineering and to propose a dialogue platform between the authorities, industry and academia on the role of chemical engineering for the energy transition

The new section will be chaired by Prof Francois Marechal from EPFL (Switzerland) and Prof Fabrizio Bezzo from University di Padova (Italy). It will be inaugurated at the world congress of chemical engineering (October, 1 to 5, 2017) in Barcelona this autumn.

The section will be organised by **sub-sections**:

Energy in chemical engineering

Sub-section 1: Energy and resource efficiency in chemical industrial plants

Sub-section 2: Energy conversion, renewable energy and CO₂ mitigation

Sub-section 3: Waste-water-energy nexus

Chemical engineering in energy

Sub-section 4: Fuels and their usage :
Refineries and petrochemicals,
Transportation



Sub-section 5: Biomass : Biofuels & Bio-products

Sub-section 6: Solar Energy & Hydrogen

Sub-section 7: CO₂ capture & reuse

Sub-section 8: Energy storage & Electrochemical processes

Website: <http://efce.info/Energy.html>

Contact us on Twitter: @EfceEnergy

Welcome to the spring 2017 issue of the EFCE newsletter. If you have any comments on the newsletter please get in touch.

Rafiqul Gani
EFCE President

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EFCE Awards

EFCE Excellence Award Calls for nominations



EFCE Working Party on Process Intensification

Industrial Innovations in Process Intensification 2017

For the second time, the Federation is pleased to announce the 2017 **EFCE Process Intensification Award for Industrial Innovation** to be awarded for an outstanding industrial application in the field of process intensification.

The award will comprise of a dedicated plaque and certificate, and the successful candidate or team will be invited to make a presentation at a special session of the 6th European Process Intensification Conference (EPIC 6). EPIC6, which is jointly organised with IPIC1 and APSPIS3, will be held in Barcelona, Spain, on 1-5 October 2017 in conjunction with the 10th World Congress of Chemical Engineering (WCCE10).

Any employee or a team of employees of a company with operations in an EFCE Member Country is eligible for nomination.

The nominated industrial innovation must be either stage of pilot-scale or full-scale industrial operation and it must have been developed between 1 January 2015 and 31 December 2016.

The deadline for submission of nominations is Friday, 16 June 2017.

For further information about the nomination procedure, eligibility, and supporting documentation, visit: http://www.efce.info/PI_Award_Industrial_Innovation.html

Process Intensification

For the fifth time, EFCE is pleased to announce the call for nominations for its prestigious **Excellence Award in Process Intensification**.

This biennial award recognises an outstanding PhD thesis in the field of process intensification. The award consists of a cash prize of EUR 1,500 and a certificate and a travel grant of up to EUR 500. The winner will be invited to give a presentation at a special session during the 6th European Process Intensification Conference (EPIC6).

EPIC6, jointly organised with IPIC1 and APSPIS3, will be held in Barcelona, Spain, on 1-5 October 2017 in conjunction with the 10th World Congress of Chemical Engineering (WCCE10).

Any PhD thesis in the area of process intensification supervised at a university or PhD-awarding institution of an EFCE Member Country is eligible for nomination.

The nominator is the supervisor of the PhD candidate. The candidate's thesis must have been defended between 1 January 2015 and 31 December 2016.

Previous award winners include Dr.-Ing. Carsten Buchaly (2009), Dr.Ir. Patrick W.A.M. Wenmakers (2011), Dr. Ernesto Altman Restrepo (2013), and Dr. Danilo Alberto Cantero Sposetti (2015).

The extended deadline for submission of nominations is 19 May 2017.

Further information about the nomination procedure, eligibility, and supporting documentation can be obtained at: <http://www.efce.info/ExcellenceAwardProcessIntensification.html>

Product Design and Engineering

The **Excellence Award in Product Design and Engineering** aims at recognising a PhD thesis published in the preceding two-year period, which demonstrates an outstanding contribution to research and/or practice in Product Design and Engineering. It will be presented at the 6th European Symposium on Product Design and Engineering which will be held in conjunction with the 10th World Congress of Chemical Engineering (WCCE10) in Barcelona, Spain, on 1 to 5 October 2017.

PhD theses published between 01.01.2015 and 31.12.2016 may be nominated for evaluation

The deadline for submission of nominations has been extended to 19 May 2017

Website: <http://www.efce.info/ExcellenceAwardProductDesign.html>

A listing of EFCE Awards and Medals is available at: <http://efce.info/EFCEawards.html>

EFCE Event Report

Electrostatics 2017

Frankfurt am Main, Germany, 10-13 April 2017 (EFCE Event No. 735)

The conference provided an interdisciplinary forum for discussion about the electrostatic phenomena and the industrial applications. A selection of oral presentations and poster discussions provided an excellent opportunity to discuss the science and technology of electro-statics and its industrial applications, with new insights into scientific advances and practical solutions for several problems. In addition, the conference provided a much-appreciated opportunity for networking with colleagues from around the world.

A special highlight of the conference was a report on accidents caused by electrostatic discharges and how to avoid them. The accidents reported covered a wide range from helicopter crashes to stirred liquids and leaking steam pipes and wooden floorings. Although electro-static hazards were identified more than a hundred years ago, they still have significant potential to cause explosions and fires in products and processes, which must not be underestimated.

The conference also provided an opportunity to award a number of special prizes:

- **The Stig Lundquist Award** has been given to **Dr. Martin Glor** (Swiss Process Safety Consulting GmbH, Switzerland) for his life's work in Electrostatics and for delivering the Stig Lundquist Memorial Lecture.
- **Dr. Simon Egan** (Solvay, Heath, Safety & Environment, France) received the **Helmut Krämer Award** for distinguished achievements in the science and engineering



Laureates of the Awards for senior researcher

4th PhD course - Measurement, modelling and control in biochemical engineering Vienna, Austria, 3-5 July 2017

We cordially invite to the beautiful city of Vienna! We are offering you a unique hands-on course to provide insight into measurement, monitoring, modelling and control (M3C) applied to biochemical processes. The course is supported by the M3C section of the European Society of Biochemical Engineering Sciences (ESBES), and by the Quality-by-Design Working Party of the EFCE.

Three days of teaching and computer exercises. Course material and computer codes are supplemented with an additional set of reading material.

Lectures by an international team of experts:

Christoph Herwig (TU Wien, Austria), Jarka Glassey (Newcastle University, UK), Bernd Hitzmann (University Hohenheim, Germany), Krist V. Gernaey (Technical University of Denmark, Lyngby, Denmark)

Please find more information under <http://esbes.org/Courses.html>

In order to register, please click here: <https://interconvention.eventsair.com/phdcourse/onlineform/Site/Register>

6th PhD Student Workshop on Polymer Reaction Engineering Vienna, Austria, 8-10 September 2017

The EFCE Working Party on Polymer Reaction Engineering is happy to announce the meanwhile 6th PhD Student Workshop on Polymer Reaction Engineering and invite PhD students to join the workshop in Vienna, Austria. The workshop is going to be held from 8 to 10 September 2017 as a direct follow-up event to the Danube Vltava Sava Polymer Meeting (DVSPM). The PhD Student Workshop represents an international platform where young researchers in the field of polymer reaction engineering can build up valuable networks. It is an opportunity to meet fellow PhD students and to get in contact with interesting companies and potential employers while presenting their latest research results.

Registration fee: EUR 100

Registration deadline: 30 June 2017

Abstract submission deadline: 15 July 2017

Register online via the following URL:

<http://www.chemie.tu-darmstadt.de/busch/akbusch/wppre/registration.en.jsp>

For further information, please visit the Workshop website at: http://www.efce.info/PhDStudent_Workshop_WPPRE.html



Participants in the ELECTROSTATICS 2017 conference

of electrostatics, developing safe technologies, innovative uses and applications and for delivering the Helmut Krämer Memorial Lecture.

- The **International Fellow** award has been given to **Dr. Jeremy Smallwood** (Electrostatic Solutions Ltd, UK) and **Dr. Klaus Schwenzfeuer** (F. Hoffman-La Roche AG, Germany) in recognition of their dedicated services and notable contributions to the advancement of the field of industrial electrostatics as a researcher and a teacher
- Four young scientists or engineers (aged 35 or younger) who delivered an oral presentation of high quality and made notable contributions in the field of electrostatics, received the **Young Scientist Award**. The award winners were:

Lisa Zater (Physikalisch-Technische Bundesanstalt, Germany), **Serge Forestier** (TÜV SUD Process Safety, Switzerland), **Sergei Vasilikov** (St. Petersburg State University, Russian Federation), and **Gontran**

Richard (Université de Poitiers, France).

Furthermore, **Prof. Istvan Berta**, who has been the former Chairman of the EFCE Working Party "Statistic Electricity in Industry", was honoured with a special prize.

The next Electrostatic conference will be in Manchester in 2019. For the first time, Electrostatics and Dielectrics 2019 will be co-located. The final session of Electrostatics 2019 will be combined with the first session of Dielectrics 2019 with papers that are relevant to both subjects. The Bill Bright Memorial Lecture will be declaimed by Professor Mitchell from Politénico de Leiria about **Electrospinning: principles, practice and possibilities**.



Presentation of the Young Scientist awards

Save the date!

ISCRE 25 – 25th International Symposium on Chemical Reaction Engineering
Florence, Italy, 20-23 May 2018
(EFCE Event No. 743)

Theme: Engineering the chemical transformation by bridging science and technology

The Conference will cover both the latest methodological developments as well as the many emerging applications of CRE to crucial technologies for energy conversion, environmental protection and sustainable chemicals production.

The call for papers will open at the end of May 2017.

Website: <http://www.aidic.it/iscre25/>

EFCE Events

Specialised events organized by/on behalf of EFCE:

11th European Symposium on Electrochemical Engineering – ESEE Prague, Czech Republic, 4-8 June 2017 (EFCE Event No. 740)

Motto: Today's research for tomorrow's technologies

The 11th European Symposium on Electrochemical Engineering (ESEE), organised by the University of Chemistry and Technology Prague in cooperation with the EFCE Working Party on Electrochemical Engineering, will to provide a focused forum for researchers and users of electrochemical technologies in a broad spectrum of existing and emerging fields of applications.

The preliminary programme is available at: [http://www.electrochemical-engineering.eu/2017/admin/scripts/source/Preliminary Programme ESEE 2017.pdf](http://www.electrochemical-engineering.eu/2017/admin/scripts/source/Preliminary%20Programme%20ESEE%202017.pdf)

Plenary speakers: Professor Anthony A. Wragg, United Kingdom; Professor Mark E. Orazem, USA; Professor Takayuki Homma, Japan; Dr. Juergen Kintrup, Germany.

Register now! Symposium website: <http://www.electrochemical-engineering.eu/2017/>

International Symposium Reliable Flow of Particulate Solids V - RELPOWFLO V

Skien, Norway, 13-15 June 2017 (EFCE Event No. 734)

RELPOWFLO V will enable the participants being updated and enriched with recent developments and investigations in the field of powder technology, while providing excellent academic and industrial networking possibilities.

Topics: Drying of Particulate Materials; Environmental Aspects; Industrial Case Studies; Measurements, Controls & On-line monitoring; Mechanical Conveyor & Feeders; Modelling and Fundamentals of Powder Systems; Particle & Bulk Characterization; Pneumatic, Hydraulic & Capsule Conveying; Powder Coating; Process Analytical Technology in Powder Applications; Production & Handling of Nanoparticles; Production of Particulate Solids; Sample Taking/ Sampling in Powder Systems; Segregation & Mixing; Separation & Classification; Size

10th World Congress of Chemical Engineering– WCCE10

incorporating the 11th European Congress of Chemical Engineering (ECCE11) and the 4th European Congress of Applied Biotechnology (ECAB4)

Barcelona, Spain, 1-5 October 2017 (EFCE Event No. 741)

Theme: Chemical and Biochemical Engineering in a Global World: "Solutions 4 Global Challenges"

The scientific programme includes 7 Topics (<http://wcce10.org/index.php/st-program/topics-st-program>) and a variety of specific and very applicable Joint Events (<http://www.wcce10.org/index.php/jointevents>)

Register now at <http://www.wcce10.org/index.php/registration/register-online>
Deadline for early registration: 30 June 2017

Chem-E-Car® World competition

Organised by AIChE, this competition engages students in designing and constructing a car powered by a chemical energy source that will safely carry a specified load over a given distance and stop. All teams are required to carefully read and review all Chem-E-Car Competition documents to fully understand the requirements to safely compete at an AIChE Chem-E-Car Competition. Further details are available at: <http://www.wcce10.org/index.php/student-program/chem-e-car>

Registration deadline to participate in the Chem-E-Car competition: 15 June 2017

Sponsorship & Exhibition

WCCE10-ECCE11-ECAB4 is a unique opportunity for companies, organisations and governments to contribute to the advancement and development of up-to-date and progress scientific and technical issues related to the field of Chemical Engineering and proposing solutions for global challenges. The WCCE10 sponsorship & exhibition prospectus is available at: http://www.wcce10.org/images/site/WCCE10SponsorSHIP-Exhibition_Prospectus.pdf

Visit the World Congress website at: <http://wcce10.org>

Join us in Barcelona!

Enlargement; Size reduction; Solids Processing; Storage of Bulk Solids.

Exhibition: This conference is a unique possibility for companies/institutions to exhibit and display their products. For further details, please visit <http://www.relpowflo.no/exhibition>

Register now!

Symposium website: <http://www.relpowflo.no>

6th European Drying Conference - EuroDrying 2017

Liège, Belgium, 19-21 June 2017 (EFCE Event No. 738)

Theme: Innovations in drying: bridging the gap between academia and industry

The European Drying Conference series is supported by the Working Party on Drying (WPD), within the framework of the EFCE. The 6th edition, EuroDrying'2017, is jointly organised by University of Liège, Free University of Brussels, with the support of the Dutch Working Group on Drying (NWGD).

Plenary speakers: Arend Dubbelboer, Danone Nutricia Research, The Netherlands; Petra Först, TU München, Germany; Romain Jeantet, INRA, France; Andrew Stapley, Loughborough University, UK, Evangelos Tsotsas, Otto-von-Guericke-University Magdeburg, Germany.

The programme of EuroDrying'2017 is now online at: <http://events.ulg.ac.be/eurodrying2017/program/>

Register now! Last registration day: 30 May 2017

Conference website: <http://events.ulg.ac.be/eurodrying2017/>

16ieme Congrès de la Société française de Génie des Procédés (SFGP 2017 Conference)

Nancy, France, 11-13 July 2017 (EFCE Event No. 742)

SFGP 2017 Conference, celebrating the 30-year jubilee of this Society, will be a privileged opportunity for engineers and scientists, from university and industry to share their experience in advanced aspects in chemical and process engineering.

Topics: Chemical engineering in view to energy transition; Product engineering, from the molecule to consuming properties; Chemical engineering as an answer to environmental challenges in 21st century; Chemical engineering for innovation in bio-compounds production; Focus on specific transverse areas.

For the first time, a special German-French day will be devoted to Chemical & Process Engineering, in partnership with DECHEMA. It will be organised on 12 July 2017.

For further details, please visit: <http://www.sfgp2017-nancy.com/german-french-day-wednesday-july-12th-2017.html>

Register now! Deadline for early registration day: 15 May 2017

Conference website: <http://www.sfgp2017-nancy.com>

European Symposium on Comminution and Classification – ESCC 2017

Izmir-Seferihisar, Turkey, 11-14 September 2017 (EFCE Event No. 747)

ESCC 2017 will develop the themes from previous ESCCs which covers processing of minerals, ores and cement, grinding, dispersing and classification, new and non-classical applications, fundamentals and modelling & simulation of comminution.

The symposium offers an excellent opportunity to share knowledge and experience between researchers, industry professionals and suppliers.

Topics: Processing of primary and secondary materials, especially minerals, ore sand cement; Grinding, dispersing and classification of fine particles, particularly in food, pharmaceutical, chemical and electronic industries; New and non-classical applications as well as new developments of milling machines and mill periphery; Fundamentals, modelling and simulation of particle breakage as well as of grinding and classification processes; Industrial comminution practices-mining.

The call for papers is open. If you would like to present a paper at ESCC2017, please submit a short abstract in English to info@escc2017.org

Deadline for abstract submission: 15 May 2017

Website: <http://www.escc2017.org/>

An extended list of events is available at <http://www.efce.info/events.html>

EFCE Events in 2018/2019

28th European Symposium on Computer Aided Process Engineering - ESCAPE-28

Graz, Austria, 10-13 June 2018 (EFCE Event No. 745)

Practitioners and academics working in the field of Computer Aided Process Engineering are invited to present up-to-date original research and developments to the 28th Edition of the European Symposium on Computer Aided Process Engineering.

Conference themes: Model Development and Simulation; Methods, Software and Tools; Open Science Movement and Education; Process Synthesis, Process Design and Life Cycle Modelling; Process Operation and Control; Bioresources, Bioprocesses and Biomedical Systems; Environment and Energy; Food, (Bio-) Pharma, and Fine Chemicals

The call for papers of ESCAPE-28 is open. The deadline for abstract submission is 5 October 2017.

Website: <https://www.tugraz.at/events/escape28/>

16th European Conference on Mixing Toulouse, France, 9-12 September 2018 (EFCE Event No. 746)

The successful series of European Conferences on Mixing, which is organised by the EFCE Working Party on Mixing, has been running since 1974 and attracts academics and industrialists from all over the world to discuss progress on mixing technology, research and applications in the process industries.

Website: <http://inpact.inp-toulouse.fr/MIXING16/>

Distillation & Absorption 2018 Florence, Italy, 16-19 September 2018 (EFCE Event No. 737)

The international conference Distillation & Absorption 2018, last held in Friedrichshafen in 2014, will showcase the newest and best in distillation & absorption technology and will cover a broad range of fundamental and applied aspects.

The call for papers will open in June 2017.

Website: <http://www.aidic.it/da2018/>

ECCE12/ECAB5 - 12th European Congress of Chemical Engineering & 5th European Congress on Applied Biotechnology

Florence, Italy, 15-19 September 2019 (EFCE Event No. 744)

Contact

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