

Press release

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Chemical engineering in the heart of Europe

Chemical engineers gathered in the Czech Republic last month for one of the most successful CHISA congresses to date. CHISA is partly organised under the auspices of the European Federation of Chemical Engineering (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 have built a 'DIY' supercomputer that delivers effective 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 world-wide 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.

Ends

Related links

[CHISA 2014](#)

[PRES 2014](#)

[Plenary Lectures, CHISA](#)

Notes to media:

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About chemical engineers

Chemical, biochemical and process engineering is the application of science, maths and economics to the process of turning raw materials into everyday products. Professional chemical engineers design, construct and manage process operations all over the world. Oil and gas, pharmaceuticals, food and drink, synthetic fibres and clean drinking water are just some of the products where chemical engineering plays a central role.

About CHISA

The series of International Congresses, CHISA, has taken place in the Czech Republic since 1962. The objective of this joint event is to provide engineers, researchers, technologists, students and others a platform to present their latest results, interchange ideas and establish new collaborations. The Congress addresses the full spectrum of chemical and process engineering practice, including current trends and future needs.

About PRES

The PRES conferences started in Prague in 1998, and was initiated in collaboration with the late Professor Zdeněk Burianec in the framework of the CHISA congresses and was firmly established by the joint PRES'99/ESCAPE 9 conference. The aim of the conference is to review the latest development and applications of process integration for energy conservation, pollution reduction and related topics.

About EFCE

Founded in 1953, The European Federation of Chemical Engineering (EFCE) is a non-profit-making association, whose object is to promote co-operation in Europe between non-profit-making professional scientific and technical societies in 30 countries for the general advancement of chemical engineering and as a means of furthering the development of chemical engineering. See www.efce.org