

The Seventh International Conference on the Foundations of Computer-Aided Process Design (FOCAPD 2009).

The process industries exert some of the most profound impact on energy resources and the environment. While there are various industrial approaches to enhancing sustainability by improving energy utilization and reducing negative impact on the environment, design is the core industrial activity that addresses and reconciles the key process objectives including sustainability. Design for Energy and the Environment was the key theme of FOCAPD 2009. The FOCAPD is the premier international conference that exclusively focuses on the fundamentals and applications of computer-aided design for the process industries. Held every five years, FOCAPD 2009, which took place in Breckenridge, Colorado from June 7 - 12, 2009, was the seventh in this series. The conference activities were designed to provide a forum for reviewing and assessing state-of-the-art contributions in process design, sustaining vigorous dialogue and debate on directions and opportunities for process design, and setting future trends and directions for design (particularly in areas pertaining to energy and the environment).

Key thrust areas of FOCAPD 2009 included:

- Energy systems design and alternative energy sources
- Design for sustainability and energy efficiency
- Robust and uncertain systems
- Design of biofuels, biological processes, and biorefineries
- Emerging technologies and processes for the environment
- Future process design education
- Multiscale and complex systems
- Process and process design
- Emerging tools and techniques in process design

The book of proceedings (El-Halwagi, M. M. and A. A. Linninger (Editors), "Design for Energy and the Environment: Proceedings of the 7th International Conference on the Foundations of Computer-Aided Process Design (FOCAPD)", CRC Press, Taylor & Francis (2009)) contained about 100 chapters based on contributions to the conference.

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