

Process Systems Engineering - the Netherlands (PSE-NL)



Process systems engineering (PSE) is basically an interdisciplinary, comprehensive approach to satisfying stakeholder requirements and solving complex problems by breaking down system requirements into smaller pieces, and then integrate the physical implementation of the requirements up into a complete functioning system. PSE consists of identification & quantification of system goals, creation of alternative system design concepts, performance of all designs, selection and implementation of the best design, verification that the design is properly built and integrated, and post-implementation assessment.

Aims / Goals

- Offer a platform for sharing the best practices and scientific advancements in the PSE area
- Stimulate networking and strengthen contact with international PSE networks
- Build and maintain the expert knowledge in the PSE area
- Disseminate and exchange knowledge and experience in PSE
- Organize interactive workshops, symposia and training courses
- Collaborate / interact purposefully with other ChE disciplines (e.g. process intensification)
- Envision a process systems engineering roadmap in NL and EU
- Initiate, stimulate and carry out cooperation projects in the PSE area, using subsidy options

Target audience

- Professionals from industry (e.g. research, engineering, operations, supply chain)
- Process technology & operations specialists and managers
- Specialists from academia (e.g. researchers, students)
- Developers and designers of novel processes, technology and equipment
- Process (systems) engineering consultants
- Companies operating in the chemical, energy, food, and pharma sectors

Knowledge domains

- The main PSE domains include: process & product synthesis, process design & analysis, process dynamics & control, process optimization, process modeling & simulation, risk management, plant operation, integration, planning, scheduling and supply chain.
- The abstraction level of the PSE knowledge domain covers the whole length and time scales, from molecules and particles to process units and plants, ending at the supply chain and enterprise level

Value proposition

- Access to an extensive network of specialists from academia and industry (from NL and abroad)
- Up-to-date knowledge and developments available first (prior to publications) to the members
- Exclusive access to the PSE-NL database of publications, presentations, patents, news, etc
- Active participation to the events (workshops, symposia) and trainings organized by PSE-NL
- Bolstering the interests and careers of individual members, and support their development
- Training courses at graduate (MSc, PDEng, PhD) and post graduate levels education
- Improved decision making, proper management of uncertainty and risk, optimized plant designs
- Optimization of investment and opportunity costs, energy use, safety and environmental impact
- Fostering academic research in the PSE area to contribute to industrial development

Websites

- www.pse-nl.com
- www.processinnovation.nl/pse