Press release

IMMEDIATE RELEASE
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PSE awards €5000 Model-Based Innovation prizes

Winning Rutgers University paper demonstrates gPROMS application to pharmaceutical tablet production

LONDON, 30 October 2013 --- Process Systems Enterprise (PSE), the Advanced Process Modelling company, today announced the winners of the prestigious PSE Model-Based Innovation (MBI) Prize for 2013.

PSE, providers of the world-leading gPROMS® modelling platform, awards an annual €3000 winner's prize and two runners-up prizes of €1000 each for the most innovative use of advanced process modelling techniques in support of published research. The prizes will be awarded at a reception on Wednesday 6 November at the AIChE Annual Meeting in San Francisco.

The winners of the main prize are Marianthi Ierapetritou, Fani Boukouvala, Vasilios Niotis, Rohit Ramachandran and Fernando Muzzio of Rutgers University, New Jersey, USA for their paper *An integrated approach for dynamic flowsheet modeling and sensitivity analysis of a continuous tablet manufacturing process,* published in Computers and Chemical Engineering.

The judges summarised the research presented in the paper as "an excellent piece of work that demonstrates gPROMS's advanced capabilities in high-fidelity modeling of solids processes, including the integration of models obtained from literature, and the ability to use the developed flowsheet models to perform dynamic sensitivity analysis simulations for the identification and quantification of critical sources of uncertainty".

Runners up were Alex Kalbasenka from PURAC Biochem and Adrie Huesman and Herman Kramer from Delft University of Technology, for their paper *Modeling batch crystallization processes: Assumption verification and improvement of the parameter estimation quality through empirical experiment design*, and Jason Bentley and Yoshiaki Kawajiri from the Georgia Institute of Technology for their paper *Prediction-Correction Method for Optimization of Simulated Moving Bed Chromatography*. Full details can be found on the PSE website.

The prize is judged by a team of leading academics in the field of process systems engineering, Professors Stratos Pistikopoulos (chair) of Imperial College London, Rafiq Gani of TU Denmark (Lyngby) and Michael Georgiadis of the Aristotle University of Thessaloniki.

gPROMS is widely used throughout the chemicals, energy, petrochemical, food and pharmaceuticals sectors, including some 200 academic organisations. Mark Matzopoulos, deputy MD, says "PSE has a strong history of working with academic communities around the world to foster innovation, through our academic programme, the MBI Prize and our Partnership for Advanced Process Modelling. We congratulate our winners on the quality of their work."

Editors

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About Process Systems Enterprise Ltd

PSE (www.psenterprise.com) is the world's foremost provider of Advanced Process Modelling software and services to the process industries. Companies apply advanced process models to explore the process decision space rapidly and effectively, in order to reduce uncertainty and make better, faster and safer design and operating decisions.

Use of PSE's technology and services results in faster innovation, improved process and product designs, enhanced operations, reduced risk, more effective R&D and experimental campaigns and better capture and transfer of corporate knowledge across the organisation. Results are achieved with relatively low investment compared to alternative approaches, with rapid returns.

PSE's global customer base of Fortune 500 process industry companies is served by operations in the UK, USA, Japan and Korea, and agencies in Saudi Arabia, China, Taiwan, Thailand and Malaysia. PSE is a spin-out of Imperial College London, and its software is used for research and teaching in over 200 universities around the world.

The company's own ability to innovate was recognised with the award of the prestigious Royal Academy of Engineering MacRobert Award for Engineering Innovation, the highest UK engineering prize.

About gPROMS

gPROMS® is the world's leading Advanced Process Modelling platform. It provides the underlying modelling, solution and optimisation engine for PSE's gPROMS family of products: general process engineering tools that include gPROMS ModelBuilder and the Advanced Process Libraries for catalytic reaction, gas-liquid separation, adsorption and membranes; and domain-specific gPROMS platform products that include gSOLIDS®, gCRYSTAL®, gFUELCELL®, gCCS and gFLARE®.

gPROMS models are used to explore the design or operational decision space to provide accurate predictive information for decision support. This helps companies reduce time-to-market for new processes or products, manage development risk, improve designs, enhance production, reduce capital and operating expenditure and ensure better compliance with safety, health and environmental requirements.

gPROMS family products are applied in all sectors of the process industries, with particular focus on modelling of complex operations such as reaction, separation, and polymerisation, and across the 'process lifecycle' at multiple scales, from laboratory experimentation through process and detailed design to online operation.

PSE is committed to maintaining the gPROMS platform and the products built on it at the forefront of process modelling technology.