Press release

IMMEDIATE RELEASE
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PSE awards €5000 Model-Based Innovation prizes at AIChE

Loughborough-Purdue team wins for novel periodic flow crystallization research

LONDON, 26 October 2017 --- Process Systems Enterprise (PSE), the Advanced Process Modelling company, today announced the winners of the prestigious PSE Model-Based Innovation (MBI) Prize for 2017.

PSE, providers of the world-leading gPROMS process 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 Tuesday 31 October at the AIChE Annual Meeting in Minneapolis.

The winners of the main prize are Qinglin Su*, Chris D. Rielly and Keddon A. Powell of Loughborough University, and Zoltan K. Nagy of Purdue University for their paper *Mathematical Modelling and Experimental Validation of a Novel Periodic Flow Crystallization Using MSMPR Crystallizers,* published in AIChE Journal.

The judges summarised the research presented in the paper as "an excellent piece of work demonstrating an integrated gPROMS-based framework for the dynamic modelling, simulation and estimation, of conventional continuous mixed-suspension mixed-product removal (MSMPR) crystallization processes operating under a periodic flow mode".

Runners up were Daeho Ko of GS Engineering & Construction, Korea, for their paper *Optimization of Vacuum Pressure Swing Adsorption Processes To Sequester Carbon Dioxide from Coalbed Methane*, and Chen Chen*, Lu Han and George M. Bollas of University of Connecticut for their paper *Dynamic Simulation of Fixed-Bed Chemical-Looping Combustion Reactors Integrated in Combined Cycle Power Plants*. Full details can be found on the PSE website.

The prize is judged by team of leading academics in the field of process systems engineering, Prof. Stratos Pistikopoulos (chair) of Texas A&M Energy Institute, Associate Prof. Michael Georgiadis of the Aristotle University of Thessaloniki, Greece and Prof. Eva Sorensen of University College London.

gPROMS is widely used throughout the chemicals, energy, petrochemical, food and pharmaceuticals sectors, including in some 200 academic organisations. Mark Matzopoulos, PSE deputy MD, says "We work closely with academic communities around the world to foster innovation, through our academic programme, the MBI Prize, our Partnerships for Advanced Process Modelling and the PSE Academic Teaching Highway (PATH). We congratulate our winners on the quality of their work."

For editors

Contact: Kate Burness, +44-20-8563-0888, k.burness@psenterprise.com
‘About’: www.psenterprise.com/news/pr171026

About Process Systems Enterprise Ltd (PSE)

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.

PSE provides gPROMS advanced process modelling products built on the company’s gPROMS® equation-oriented platform. The two core environments for engineers and scientists are the gPROMS ProcessBuilder® flowsheeting environment for optimising fluid process design and operation and the gPROMS FormulatedProducts® environment for integrated design and optimisation of formulated products and their manufacturing processes. The company also provides a growing number of gPROMS Operational Excellence Solutions for operational monitoring, optimisation and planning.

The unique advantages that PSE tools bring are the combination of high-fidelity models, powerful mathematical optimisation and global system analysis capabilities, and an equation-oriented framework capable of rapid and robust solution of complex problems. 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.

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 China, Taiwan and Thailand. PSE is a spin-out of Imperial College London, and its software is used for teaching and research in some 200 universities around the world.

PSE is committed to defining, developing and driving the adoption of next-generation process modelling software and workflows. 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 UK’s highest engineering prize.