



# Press release

**FOR IMMEDIATE RELEASE**

Release date: 13 November 2008

## **PSE awards €5000 “Model-Based Innovation” prize**

### **Winning U. Sydney, LSU team describes optimal control of antisolvent crystallisation**

LONDON, 13 November 2008 – Process Systems Enterprise (PSE), providers of the gPROMS advanced process modelling (APM) software and related services, today announced the 2008 winner of the €5000 annual PSE Model-Based Innovation Prize.

The prize has been awarded to the joint Louisiana State University – University of Sydney team of S. Mostafa Nowee, Ali Abbas and José A. Romagnoli for their paper “*Model-based optimal strategies for controlling particle size in antisolvent crystallization operations*”, published in the American Chemical Society’s Crystal Growth & Design journal. The prize will be formally awarded at the AIChE Annual Meeting in Philadelphia next week.

The judges awarded the paper high points in each of the five evaluation categories. They summarised it as “an excellent paper that includes complex modelling, model validation and both off-line and on-line optimisation in gPROMS”.

Dr Ali Abbas, who submitted the winning entry on behalf of his co-researchers, said “We are delighted to have won this award. Control of crystallisation particle size is a challenging problem. We were able through the use of the gPROMS software to not only streamline the modelling, validation and optimisation of the crystallisation process, but to also understand the effects of specific interactions that play key roles in controlling the crystal end-product particle size.”

He adds “Succeeding in experimentally validating the optimal control strategy confirmed the strength of this model-based approach which is at the heart of our research, and it is very pleasing to see industry picking up on this innovation”.

PSE is a leader in the emerging field of Model-Based Innovation (MBI), in which detailed high-accuracy mathematical models of processes and products are used to accelerate innovation and minimise risk. MBI helps to integrate R&D activities with engineering design while streamlining development and reducing costs. gPROMS is the world’s leading modelling environment for such applications, and is widely used throughout the chemical, petrochemical, food and pharmaceuticals sectors, including some 200 research organisations around the world, for optimisation of design and operation of process plants.

The MBI prize is open to researchers from industry, academia and research organisations. The judges favour research that focuses on novel areas of process and related technology or novel approaches to traditional process areas, as well as applications that have a positive impact on society and the environment.

Mark Matzopoulos, Chief Operating Officer of PSE, says “As a company that grew from research and innovation, we are keen to recognise the efforts of others who are doing the same. We congratulate the winners on the depth and quality of their work.”

### **Notes for Editors – PSE distribution version**

Information including photographs is available at [www.psenderprise.com/news/pr081113.html](http://www.psenderprise.com/news/pr081113.html)

## **About Process Systems Enterprise Ltd**

PSE ([www.psenderprise.com](http://www.psenderprise.com)) is one of the world's foremost providers of Advanced Process Modelling (APM) software and services to the process manufacturing industries. APM uses high-accuracy mathematical models of process equipment and phenomena to provide high-quality numerical information for decision support in process innovation, design and operation.

Use of PSE's technology and services within Model-Based Innovation programmes results in faster innovation, improved designs of processes and products, enhancement of existing operations and more effective R&D and experimental programmes. Results are achieved with relatively low investment compared to alternative approaches – where these exist – with rapid return on investment and transfer of modelling know-how to industry.

PSE's global customer base of process manufacturing companies and their technology suppliers is served by operations in the UK, USA, Germany, Japan and Korea, and agencies in China and India. PSE is a spin-out of Imperial College London, and its software is used in some 200 research organisations around the world.

The company's own ability to innovate was recognised with the receipt of the prestigious Royal Academy of Engineering MacRobert Award for Engineering Innovation in June 2007.

## **About gPROMS**

gPROMS<sup>®</sup> is the world's leading Advanced Process Modelling (APM) environment. It is used to provide high-quality information for decision support in innovation, design and operation across all sectors of the process industries, with particular focus on modelling of complex operations such as reaction, crystallisation, polymerisation and fuel cell processes, where PSE supplies state-of-the-art open model libraries.

Companies apply gPROMS to reduce time-to-market for new processes or products, improve designs, enhance production, reduce capital and operating expenditure and comply more effectively with safety, health and environmental requirements.

gPROMS is applied across the 'process lifecycle', from laboratory experimentation, through process and detailed design, to online operation, and is central to the emerging technology of Model Based Innovation.

PSE is committed to maintaining gPROMS at the leading edge of modelling technology.

For further information, please contact:

### **Kate Burness**

Corporate Communications Manager  
Process Systems Enterprise Limited  
26-28 Hammersmith Grove  
London W6 7HA, United Kingdom

Tel +44 (0) 20 8563 0888

Fax +44 (0) 20 8563 0999

Email [k.burness@psenterprise.com](mailto:k.burness@psenterprise.com)

On-line media information is available at:

<http://www.psenderprise.com>