

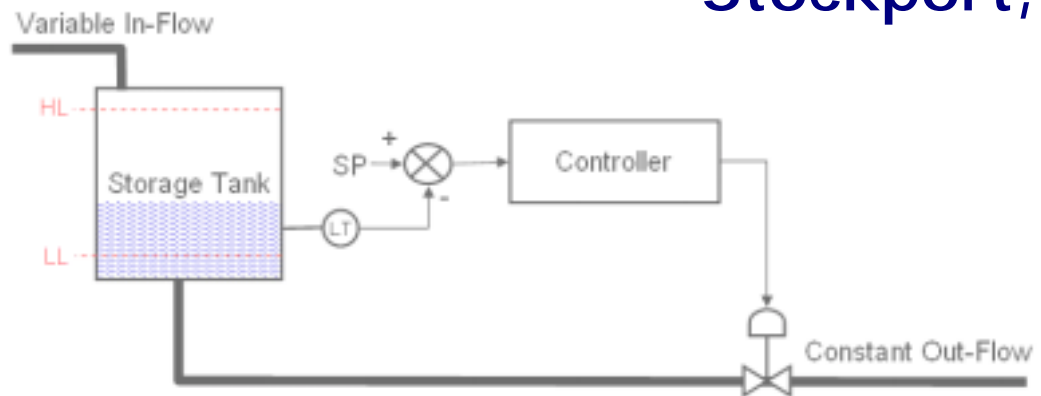


PROCESS CONTROL ACADEMY 2007



Industrial Process Control Training that makes a difference to you and your plant

6-8 February 2007
Stockport, UK



Highlights:

- 3-day structured programme delivered by leading experts
- Hands-on exercises to reinforce learning
- Control and monitoring methods with proven application
- Comprehensive course notes

Register now:

www.actc-control.com/processacademy

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INTRODUCTION....

The PCA 2007 training and awareness event follows on from the successful first Process Control Academy held in 2005, and has been revised taking into account delegate feedback to include hands-on exercises. The main theme of the event will provide an overview of enhanced control and condition monitoring techniques through application stories and the latest software tools. The focus will be on techniques that provide a competitive advantage through greater reliability, robustness and improved performance.

TARGET AUDIENCE....

- Process Control Engineers wishing to refresh their knowledge and understand the latest techniques.
- Managers requiring an up-to-date overview of quality improving technology.
- Operations and Production Staff looking for ways to get more from their plant.

ACTC MEMBER COMPANIES ARE ENTITLED TO TWO FREE PLACES

DISCOUNTS ARE AVAILABLE FOR STUDENTS/ACADEMICS, IET/INSTMC/ICHEM MEMBERS AND GROUPS

SEE THE REGISTRATION FORM

DAY 1

"GETTING THE BASICS RIGHT"

This is the ACTC's highly regarded "Introduction to Process Control" training course, providing a suitable introduction for those new to process control or a refresher for experienced engineers. Covered are the basics of process dynamics; control and loop tuning; how to identify and alleviate common problems; enhanced control such as feed-forward and cascade control. The learning is reinforced using real-life examples.

DAY 2

"TURNING ADVANCED CONTROL INTO APPLIED CONTROL"

This day will see the introduction and application of model predictive control, the most widely employed advanced strategy for difficult to control processes. Whilst MPC was once only found in oil refineries, new tools are allowing this technology to extend to other processes. The additional complexity of nonlinearities, such as pH and changing product grade and throughput, is covered together with proven and new control strategies to overcome them. Again, hands-on exercises will reinforce the lectures.

DAY 3

"FAULT DETECTION THROUGH CONDITION MONITORING AND PROCESS MONITORING"

The final day provides a thorough overview of developments in condition monitoring and plant-wide monitoring for fault detection and root cause analysis. There will be an introduction to the basic techniques and the categorisation of different methods, including smart sensors, rotating machinery monitoring, process analytics and data driven fault detection. The advantages, disadvantages and potential for method will be explored.



TIMETABLE

DAY 1	DAY 2	DAY 3
The Elements of a Control System	Introduction to Model Predictive Control	Do you control your machinery, or does it control you?
The Process and Dynamics	Computer Based Exercise - Basics of Model Predictive Control	-FMEA Machinery Condition Monitoring and Root Cause Analysis
Computer Based Exercise - Obtaining Process Dynamics	MPC – A Useful but not Necessarily Optimal Tool	Title TBC
Applying Control to the Processes	Adaptive Predictive Expert Control Industrial Application	Process Monitoring and Data Visualisation Techniques
Computer Based Exercise - PID Tuning	Computer Based Exercise - Adaptive Predictive Control	Application of Principal Component Analysis (PCA) to Process Plant
What Makes Control Difficult		Computer Based Exercise - Using PCA
Enhanced Process Control	Industrial Evolution of Nonlinear Predictive Control	Advances in Plant-Wide Controller Performance Assessment
Computer Based Exercise - Enhanced Control	A New Design Tool for Simple Nonlinear Controllers	Process Control Academy 2007 Review
	Academy Evening Dinner	

THE APPLIED CONTROL TECHNOLOGY CONSORTIUM

The Applied Control Technology Consortium (ACTC) helps companies pursue a policy of understanding and appropriately applying control technologies. The ACTC has been self-financing since 1993 and has grown to become truly international. It now provides control technology support to 35 'world-class' companies operating in industries as diverse as Automotive, Aerospace & Defence, Chemical & Petrochemical, Energy, Marine, Metal Processing, Food and Drink manufacturing.

The success in meeting the expectations and needs of its member companies can be attributed to the Consortium's flexibility and responsiveness in sharing an understanding of industrially relevant technology. A Steering Committee, made up of representatives from member companies, ensures that the ACTC serves the needs of its members.

EMERSON PROCESS MANAGEMENT

Emerson Process Management is a leading supplier of process management solutions that help automate, control and manage complex plant processes used in the chemical pulp and paper, power, food and beverage, refining, oil and gas, pharmaceutical, and other industries. The company combines superior products and technology solutions with industry-specific engineering, consulting, project management, and maintenance services.

VENUE

This event is being hosted by Emerson Process Management at their UK Offices in Horsfield Way, Bredbury, Stockport Tel: 0161 430 7100). The venue provides convenient access by road (M60 / M56) and rail (Manchester Piccadilly Line). For more details, including maps and hotels please see our website.

FOR MORE INFORMATION

Contact Lesley Breen:

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 Email: actc@isc-ltd.com

or visit our website:-

www.actc-control.com/processacademy

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REGISTRATION FORM

To register for the course please complete in BLOCK CAPITALS and send with proof of payment to the address given below.

Surname (incl. title) : First name(s) :

Company/Organisation: Job Title:

Address:

Tel.: Fax:

Email: Current Area of work:

Special Requirements (e.g. vegetarian):

Type of Registration

ACTC Member Fee: Free of Charge (maximum 2 places)

Non ACTC Member Fee: £900 per delegate, excl VAT (£1057.50 incl VAT)

Discounts

IET / ICHemE / InstMC Member 10% off for each member (951.75 per delegate, incl VAT)

Membership Number:

Student / Academic 10% off for each (951.75 per delegate, incl VAT)

Departmental Contact:

Two Delegates from the same Company 10% of total price (for bigger groups please contact us)

Please reserve places on the course

Additional Names:

NOTE: If you are not able to use a single form to register multiple places, then use multiple forms, but only complete payment details on one. We will use the "Additional Names" to merge the registrations

Total Sum payable £ please pay the amount including VAT - refer to the terms and conditions below

Company VAT ID No. (only needed if from a non-UK Company)

Please indicate method of payment:

- Cheque enclosed payable to The Applied Control Technology Consortium.
- PayPal (Debit/Credit Card). (www.paypal.com/uk make payment to iscmal@isc-ltd.com)
- Bank transfer to: Applied Control Technology Consortium. **(Please include the delegate's names on the transfer)**

The Royal Bank of Scotland plc, Gordon St, Glasgow, G1 3PL, Scotland Sterling Acc No: 00644490, Sort Code: 830706.

Alternatively, you may register on-line at www.actc-control.com/processacademy

TERMS AND CONDITIONS - Fees are payable in advance and must be received two weeks prior to the commencement of the course/event. Full payment, or proof of payment, must accompany all registrations. Your registration is not confirmed until payment is received. Cancellation: Fees will be refunded, less 10% handling charge, for any cancellation received in writing 14 days prior to the course. For cancellations after this date and no shows, we reserve the right to charge the full rate. Substitute delegates are welcome at any time. We also reserve the right to modify or cancel training courses, giving adequate notice and refunds to registrants. VAT (Value Added Tax): VAT is charged on Event and Course fees at the current UK rate of 17.5%. Companies from the UK and other European Community countries can claim back the VAT (requiring company VAT ID No. for non-UK companies). Companies from outside the European Community pay the amount including VAT.

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