

- modelling and simulation
- control design
- system troubleshooting
- technology transfer and training
- energy efficiency investigation
- software tools

Capability Statements – Oil and Gas Industry

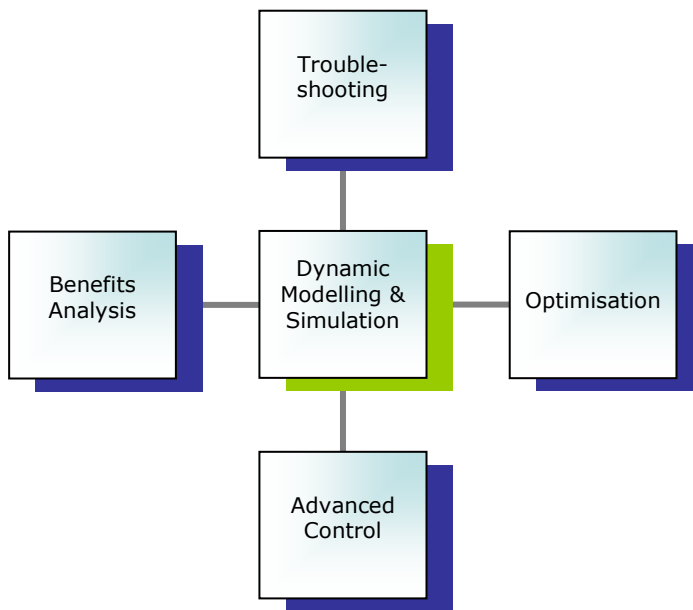
Independent Control Consultancy, Technology and Training Services

ISC provides independent, high quality control engineering consultancy and training services to the oil and gas industry. With a multidisciplinary team of individuals, we specialise in troubleshooting, advanced control strategy investigation, optimisation and benefit analysis using high-fidelity, well validated dynamic models.

We thrive on:

- Solving difficult practical control problems that other suppliers have looked at but failed to solve;
- Optimising control design and parameters that yield the most profitable or best way of operating a plant or system.

Solutions can range from simple classical feedback/feedforward to advanced control, such as model-based methods like MPC. Nevertheless, simplicity remains a key objective in our solutions, providing performance criteria can be met.



Consultancy Service Examples

- BP Upstream Process Control Training Course
- Investigating Stability of Separator Train and MOL Expert System
- Simulation of Filter Membrane Package for Produced Water
- Troubleshooting Compressor Train Frequent Trips
- Review of Digital Valve Positioners for Oil and Gas Applications
- Gas Reinjection Troubleshooting and Lessons Learned Review

If you are interested in any of the above services, please contact us by phone, e-mail or online.



Our Expertise

- In-depth understanding of control technologies
- Extensive experience in diverse industrial applications
- Detailed experience in modelling system or process behaviour
- Expert analysis of complex problems
- Proven project management and research skills

Our Core Competencies

- Troubleshooting
- Dynamic modelling & simulation
- Control strategy design
- Optimisation
- Algorithm development
- Benefits analysis and technology review
- Research
- Training

Our Philosophy

- Approaching problems with an open mind
- Dedicated to identify practical and innovative solutions without compromising performance
- Imparting understanding and empowering our clients to drive improvements themselves

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Training Services

ISC has delivered highly regarded training on control engineering to clients throughout the UK, Europe and USA. Our courses represent the most comprehensive available in the field of control engineering and can be focused on particular requirements of the client company. We offer:

Scheduled Courses • On-Site Courses • Bespoke Courses

We train at all levels, from introductory material for technicians, refresher for engineers, to new or advanced control techniques for research groups.

We have developed and delivered bespoke training courses for clients in the oil and gas, defence and metals processing industries, covering a wide range of subjects including upstream process control.

What delegates said about our recent training courses ...

"By far one of the best that I have taken"

"Very stimulating - well done!"

"Examples were very good and showed how to apply theory"

"Well run and presented"

Applied Control Technology Consortium (ACTC)

ACTC helps member companies pursue a policy of understanding and appropriately applying control technologies. It has been self-financing since 1993 and has grown to become truly international, providing control technology support to companies operating in industries as diverse as Automotive, Aerospace & Defence, Chemical & Petrochemical, Energy, Marine, Metal Processing, Food and Drink manufacturing.

ACTC Service Examples

- *Control Fundamentals: Theory & Practice* (July 10, March & October 09, Glasgow)
- *Introduction to Estimation and Kalman Filtering* (July 10 & October 09, Glasgow)
- *Robust and Reliable Control Systems Design* (May 09, March & October 09, Glasgow)
- *System Identification* (October 09, Glasgow)
- *Hybrid and Predictive Control for Nonlinear Industrial Applications* (April 09, Glasgow)
- *ACTC/NI Control Design Workshop* (June 08, Univ. of Washington, USA)
- *Optimisation and System Identification* (May 08, Glasgow)
- *Process Control Academy* (March 08, Leeds)
- *Advances in Real-Time Control of Nonlinear Systems* (September 07, Glasgow)
- *Advances in Process and Condition Monitoring in the Offshore Oil Industry* (July 07, Aberdeen)
- *Managing Alarms and Abnormal Situations in the Process Industries* (July 06, Grimsby)

Clients Include

- BP Chemicals
- BP Exploration
- BP Oil Grangemouth Refinery
- ConocoPhillips
- Marathon Oil
- Shell

Course Examples

- Upstream Process Control
- Introduction to Process Control
- Control Fundamentals (Theory and Practice)
- Predictive Control
- Optimisation and System Identification
- Process Control Academy
- Overview of Modern Control
- Introduction to Robust and Multivariable Control Design
- Introduction to Nonlinear Control
- Introduction to LabVIEW and Control Design/Simulation Toolkit
- Fundamentals of Dynamic Control using LabVIEW

ACTC Membership

- Free entry to technical events
- Free training entitlement
- Site visits by consultants
- Free access to members-only software and technical dissemination reports
- Access to industrial forum for networking and promotion of services and products

If you are interested in any of the above services, please contact us by phone, e-mail or online.