AZ TECH

An ISO 9001:2015 & ISO 29990:2010
Certified Company

Process Control Valves and Actuators

Sizing, Selection, Installation & Maintenance

27 - 31 October 2019
08 - 12 December 2019
16 - 20 February 2020
Dubai, United Arab Emirates

ACS REGISTRARS Quality Assurance ISO 9001
ACS REGISTRARS ISO 29990
iosh Accredited Course Provider
NACE INTERNATIONAL IRON CORPORATE MEMBER
Institute of Asset Management IAM CORPORATE MEMBER
IAM endorsed TRAINER
THE GLOBAL COMPACT United Nations Global Compact

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Why Choose this Training Course?

Grab the opportunity to attend an exciting course that equips you with all the necessary knowledge to enter the world of valves and actuators. The workshop is highly interactive, and is suitable for all delegates, regardless of their background. Whether you are part of the team purchasing the valves, or a key member involved in implementing maintenance activities, or a process control specialist, this is the one course that you should not miss out on! Valves, actuators, associated equipment, process control using valves – this and much, much more are covered in 5 knowledge-filled days.

The training course focusses on applications and examples deemed to be relevant to your industry and is cognizant of your working environment. At least 50% of the workshop is devoted to practical exercises and discussions, to keep attention spans at optimal levels.

This AZTech training course will feature:

- Essentials of control valves
- Actuators and associated valve equipment
- Theoretical and practical sizing aspects
- Selection, installation and maintenance essentials
- Tuning and optimizing a process, using control valves

What are the Goals?

By the end of this AZTech training course, participants should be able to:

- Comprehend valve operation
- Understand and appreciate assorted common valve types
- Size and select the correct valve set (including actuators), suited to each specific application
- Choose suitable positioners, based on prevailing conditions
- Use multiple techniques to tune a valve-controlled process

Who is this Training Course for?

It is irrelevant whether delegate valve knowledge and experience ranges from novice to advanced. The workshop starts from first principles, and builds up, with the emphasis on delegate participation. Instructor guidance is delivered on a personal level, and delegates are encouraged to ask as many questions as necessary.

This AZTech training course is suitable to a wide range of professionals but will greatly benefit:

- Instrumentation, electrical, mechanical, process and maintenance engineers, specialists and staff
- Management
- Design teams
- Budgeting and financial staff
- Team leaders, supervisors and foremen

How will this Training Course be Presented?

This AZTech training course starts off from basics, and builds up to an advanced level, as far as control and using valves and actuators, are concerned. None-the-less, it is presented in such a way that even total novices will feel comfortable from the very beginning. No-one is left behind, and the instructor takes pride in guiding all delegates along the way, with personal assistance, where required.

Delegates are encouraged to keep an open mind and to immerse themselves in all exercises and discussions, to ensure that maximum learning takes place. Preference will always be given to applications and examples that tie up with the working environment encountered by the delegates.

THE COURSE CONTENT

DAY 01:
Introduction and Theory

- Control valve purpose and principles
- Flow conditions and pressure drops inside a valve
- Control valve and actuator signals
- Types of flow, Reynold numbers, vortices, gas vs liquid flow, Cv, Choked flow, etc.
- Cavitation and flashing
- Valve classification, associated hardware and an introduction to valve types

DAY 02:
Valve Specifics, Characteristics and Sizing

- Continuation of valve types
- Valve selection and valves in P&IDs
- Valve leakage
- Valve characteristics (including equal percentage, linear, etc.)
- The relationship between inherent versus installed characteristics
- Calculations pertaining to valve sizing for a liquid application

DAY 03:
Actuators, Positioners, Trims, Maintenance and Safety

- Valve sizing, using software
- Actuators, and the choices available
- Valve positioners
- Cavitation and noise control
- Valve installation and maintenance
- Pressure relief and SIS valves

DAY 04:
Process Control Using Control Valves

- Introduction to process control
- The PID controller
- Open-loop tuning
- Closed-loop tuning
- Trial & error tuning (open and closed loop)

DAY 05:
Optimum Control, Using Control Valves

- Valves in cascade loops
- Valves in ratio loops
- Valves in non-linear loops
- Valves in loops with long time delays
- Valves used in conjunction with PLCs
- New innovations in control valve technology

COURSE SCHEDULE:

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THE CERTIFICATE:

AZTech Certificate of Completion for delegates who attend and complete the training course

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DATE	VENUE	FEES(USD)
27 - 31 Oct 2019	Dubai - UAE	$4,950
08 - 12 Dec 2019	Dubai - UAE	$4,950
16 - 20 Feb 2020	Dubai - UAE	$4,950

REGISTER NOW

This fee is inclusive of Documentation, Lunch and Refreshments and maybe subjected to 5% VAT.

Complete & send by fax/mail to address given below.
Please use BLOCK CAPITALS.

REGISTRATION DETAILS

FAMILY NAME:

FIRST NAME:

POSITION: COMPANY:

MAILING ADDRESS:

TELEPHONE: MOBILE:

FAX: EMAIL:

AUTHORISATION

AUTHORISE BY:

POSITION: EMAIL:

TELEPHONE: FAX:

POSTAL ADDRESS:

MODE OF PAYMENT

- ☐ PLEASE INVOICE MY COMPANY
- ☐ PLEASE INVOICE ME
- ☐ PLEASE FIND ENCLOSED A CHEQUE PAYABLE TO AZTECH
- ☐ ONLINE / CREDIT CARD

Hotel Accommodation

Hotel accommodation is not included in the Registration Fee. A reduced corporate rate and a limited number of rooms are available for attendees wishing to stay at the hotel venue. Please make your request for accommodation at least **3 weeks** prior to the commencement of the course.

Event Disclaimer

We reserve the right to cancel or postpone a seminar or related event, change venue, substitution of the Instructor and alter the course content at our sole discretion. If this occurs, our responsibility is limited to a refund of any registration fee(s) already paid. We are not responsible for airline tickets, hotels costs, other tickets or payments, or any similar fee penalties or related or unrelated losses, costs and/or expenses registrant may incur or have incurred as a result of any trip cancellations or changes.

Cancellation & Substitution

You must notify the Registrar of cancellations at least **2 weeks before a scheduled** seminar in order to be eligible for a credit. If you cannot attend, you may send a replacement from your organisation at no charge. There is a **$250 handling charge** for all cancellations or rescheduling. We reserve the right to cancel a seminar due to low enrollment. All registrants will be notified in advance and a full refund will be provided upon request.

4 Ways to Register

Toll Free: **800-AZTECH**
Telephone: **+971 4 427 5400**
Fax Number: **+971 4 427 5401**
Email Address: **info@aztechtraining.com**
Visit our website: **www.aztechtraining.com**

Certification

AZTech Certificate of Completion for delegates who attend and complete the training course

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Our training portfolio will provide you a number of seminars and courses to choose from depending on your organisational goals and personal development objectives.