INSTRUMENTATION ENGINEERING FOR OIL AND GAS FACILITIES

WHAT YOU WILL LEARN:

• Skills and competencies in instrumentation oil and gas engineering
• Knowledge of the latest technologies in Instrumentation oil and gas engineering
• Key techniques in operating your facility to the highest level of safety and in protecting the environment
• Decades of real experience distilled into the course presentations and materials
• Guidance from real Instrumentation oil and gas experts in the field
• Hands-on, practical knowledge from the extensive experience of instructors, rather than the theoretical information from books and colleges
• Networking contacts in the oil and gas industry

WHO SHOULD ATTEND:

This course is ideal for you if you are seeking expertise in the oil and gas business and are an:

• A recent graduate instrumentation or mechanical engineer
• Chemical engineer
• Fire and gas engineer
• Instrument and control systems engineer
• Instrument and process control technician or technologist
• Instrument fitter
• Mechanical engineer

Even if you are highly experienced you will find this a great way to become familiar with the oil and gas technology as quickly as possible.
The Program

DAY ONE
INTRODUCTION – SETTING THE SCENE IN OIL AND GAS E&I ENGINEERING
- Fundamentals of instrumentation, measurement and process control engineering

DAY TWO
INSTRUMENTATION AND CONTROL
- General instrumentation standards in oil and gas
- Process instrumentation
- Calibration, installation and maintenance of instruments
- Process control basics
- Control valves sizing, selection and maintenance (including pressure relief valves)
- Programmable Logic Controllers
- SCADA systems
- Distributed control systems
- Industrial data communications (including Fieldbus and industrial Ethernet)
- Safety instrumentation and emergency shutdown systems for oil and gas (IEC 61511 and IEC 61508) – basic introduction
- Wellhead and flowline control – control systems
- Emergency wellhead blowout controls

DAY THREE
SPECIALISED APPLICATIONS IN OIL AND GAS
- Power generation
- Cathodic protection
- Compressor control (including surge control)
- Drilling control systems and instrumentation
- Subsea instrumentation and control systems
- Pig launcher/receiver systems
- Critical flare knock out drum controls and instrumentation
- Flare flame front generator and ignition monitoring system
- Distributed control systems

SUMMARY, OPEN FORUM AND CLOSING

Practical Sessions

This is a practical, hands on workshop enabling you to work through practical exercises which reinforce the concepts discussed.

To gain full value from this workshop, please bring your laptop/notebook computer.

“Excellent presentation of a complex subject in a very short period.”
Terry Hailstones

On-Site Training
- SAVE over 50% by having an IDC workshop presented at your premises.
- Customise the training to YOUR workplace.
- Have the training delivered when and where you need it.

Contact us for a FREE proposal.