

Course Duration :
Daily Schedule :
Training Date : Upon Request
Training Venue : Doha
Traning Fees : TBI



Course Outline

Module 1

Evolution of Process Control / Automation

- Continuous and Discrete Control
- Basic Concepts – Open /Close loop
- Control Loop Components and SMART Instruments
- Current Scenario – PLC, SCADA and DCS based automation
- Hierarchical Structure of Control Systems
- DCS Block Diagram, Components, Architectures, Redundancy Concepts
- DCS hardware configuration

Module 2

- DCS programming Languages and IEC 61131
- Discrete Control
- Sequential Control
- Safety Interlocks
- Analog Control
- DCS Applications and Case Study (Oil & Gas & Petrochemical)

Module 3

- Introduction to HMI and SCADA functionality
- Plant Mimic and Animations
- DCS Operator Stations and Operations
- Alarms Philosophy, Configuration and Management
- Development and Applications of Data Logs, Trends and Reports
- Security and Access Controls

Module 4

- DCS Communications
- DCS Engineering
- Design / Specifications and Selection
- Documentation and Project Engineering
- Panel and Field Wiring
- Installation and Commissioning

Module 5

- DCS Diagnostics
- DCS Troubleshooting
- Basics of Advance Process Control and Optimization
- DCS Applications and Case Study (Power & Cement)



QATAR TECHNICAL PETROLEUM CENTER

Basic DCS Operations

QTPC - AN ISO 9001:2008 Regd.



Introduction

Below are the standard course details that to be delivered by our expert plus extra most valuable contents from the GT faculty.

Course Objectives

Upon Completion of this course the participant will be able to

- Understand Hierarchical Structure of Automation and Control Systems
- Learn DCS fundamentals and architectures
- Understand DCS programming for logic and front end displays
- Understand DCS communications, alarm management, data logging, trends and reports
- Develop skills on DCS operations using plant MIMIC
- Have knowledge on DCS Project Engineering, Design and Selection vis-à-vis applications
- Become expert on DCS installation and commissioning
- Master the art of DCS maintenance and troubleshooting
- Have a brief exposure to Advance Process Control and Optimization
- Know various DCS applications

Targeted to ?

Instrumentation, Electrical, Mechanical and Process Engineers, Project Engineers, Maintenance Engineers and Supervisors interested to work in the field of DCS/ Automation and Process Control. The course will also definitely be beneficial for the all the other department people concerned with the plant operations, production, maintenance and safety. It could be also useful for the procurement and quality personnel.

Training Methodology

The course will be conducted throughout by student-centered learning techniques and consequently will be highly participative involving group discussions, role-plays, case studies, and various management and self-assessment exercises.

Certification

At the end of the course all participants will be presented a Certificate of Training by QTPC.

About the Instructor



ABDUL SAMAD KOLNAD

Educational Qualifications:

Bachelor of Engineering (Instrumentation Technology): Sri Jayachamarajendra College of Engineering, University of Mysore in 2001.

IT Skills: Well versed with MS – Office, UNIX, NT, DOS, Windows 2K & XP, Visio, C and

PROFESSIONAL SYNOPSIS

- Seasoned professional with around 11 years of rich experience in Project Management, Instrumentation, Operation & Maintenance and Process Enhancement in Oil & Gas Industry.
- Well versed with Yokogawa Distributed Control System, Instrumentation Products, Invensys Foxboro IA DCS, PLC, Honeywell DCS, Foundation Field Bus, Siemens, Yokogawa and Triconex PLC, Vibration Monitoring Systems, AMS, Exaquantum, SER and Third Party Sub Systems.
- Proficient in handling site operations and accountable for quality service & timely completion of projects.
- Adept at carrying out various tests & inspection for various processes and checking the quality.
- An enterprising leader with proven dexterity in leading and directing personnel towards accomplishment of a common goal.
- Talent for proactively identifying & resolving problems and ramping up project activities on time.
- An effective communicator with excellent relationship management skills and strong analytical, leadership, decision-making, problem solving & organizational abilities.

The Accountabilities

Project Management

- Spearheading activities involving working out various requirements & monitoring overall project operations for ensuring timely completion.
- Monitoring the activity at sites and review of project schedule, ensuring cost control within budget, planning for cash flow requirements, etc.
- Executing cost saving techniques / measures and modifications to achieve substantial reduction in O&M expenditures and work within the budget.
- Formulating the I/O database & BOM; supervising the CAD works and panel integration; carrying out FAT for Petrofach – BG, Tunisia.

Instrumentation

- Selecting control schemes, identifying appropriate control system, handling enquiry specification preparation and selecting instruments based on type of application.
- Managing the process measurement, control instrumentation and services to monitor the operations.
- Rendering customer training on Yokogawa DCS, overseeing the service and support of Yokogawa DCS.
- Furnishing telephonic guidance / support to the customers.

Installation & Commissioning

- Anchoring erection & commissioning of equipments and ensuring completion of project in minimum turnaround time effective resource utilisation to maximize the output.
- Overseeing installation & commissioning as well as conducting tests & inspections to ensure operational effectiveness of utilities; conducting FAT and SAT.
- Monitoring the installation & commissioning of Yokogawa DCS (CS 3000, CS 1000, Centum – CS and Centum - XL).

Operations & Maintenance

- Overseeing execution of preventive maintenance of DCS, PLC & Field Instruments, including schedules / shutdown maintenance to ensure trouble free and seamless operations.
- Preparing various project reports for identifying areas of obstruction / defects, conducting troubleshooting, service and repair to rectify the equipments.

Team Management

- Leading, mentoring & monitoring the performance of team members to ensure efficiency in process operations and meeting of production targets.
- Creating and sustaining a dynamic environment that fosters development opportunities and motivates high performance amongst team members.