Distributed Control System (DCS)

TE255

Course Overview:

Rapid progress in power plants and utilities leads to a parallel needs in distributedcontrol actions in different sites and environments.Control systems have created the world's most advanced distribution automation suite,including designing, planning, management, and automatic feeder restoration.This course ranges from revision of power utilities needs for local and remotemeasurements and control for different sites, to the advanced robot manipulation andrapid action execution.

Course Objective:

-Understand the basic concepts of the design of power systems measurement

-and control.

-Apply different control techniques.

-Know the different methods of systems identifications.

-Analyze linear discrete-time systems.

-Design digital control systems.

-Be familiar with distributed sensor systems.

Course Outline:

1. FUNDAMENTALS OF CONTROL SYSTEMS2. FUNDAMENTALS OF MODERN CONTROL SYSTEMS3. DCS SYSTEM ELEMENTS4. ELECTRICAL INFRASTRUCTURE FOR THE DCS5. REVIEW OF COMMUNICATION NETWORKS IN A DCS6. THE BASIC DCS CONTROLLER AND CONFIGURATION7. THE DCS OPERATOR INTERFACE8. DCS ALARM SYSTEM MANAGEMENT9. DCS DOCUMENTATION

Who Should Attend:

Electrical and mechanical engineers and technicians

Training Language:

EN / AR

Training Methodology:

-Presentation & Slides

-Audio Visual Aids

-Interactive Discussion

-Participatory Exercise

-Action Learning

-Class Activities

-Case Studies

-Workshops

-Simulation