

Developing World Class Competency in

# District Cooling Systems Technology

Multi-Discipline Understanding of the Technology & Methods

Achieving World-Class Efficiencies

2 Week Training Program

✓ Technology

✓ Design

✓ Maintenance

✓ Operational Effectiveness

A 2 Week Training Program

## Program Overview

This program provides you a multidiscipline understanding of District Cooling Systems Technologies and Methods. Program covers Design, Plant Units, Operations and Maintenance Aspects of the Technology.

The rapid expanding and booming construction activity in International Growth Areas has focused attention towards use of efficient and environmentally friendly district cooling systems for new commercial and residential developments. These Systems are essentially composed of Large Centrally Located Chiller Plants that provide Chilled Water Supply to the Buildings in the Neighbourhood through Underground Pipelines. Such Systems are usually much more efficient in providing cooling, cause less adverse environmental impact, reduce other societal costs and reduce pressure on scarce resources. Understanding the Multi-discipline aspects of this Technology will ensure Higher Operational Efficiencies and Resource Conservation.

## PROGRAM CONTENT

1. The DCS Alternative
2. Understanding the DCS Technology
3. Some Business Aspects
  1. Business Opportunity
  2. Strategic Issues
  3. Business Models
  4. Feasibility & Design Data Collection & Analysis
  5. Marketing DCS Projects & Proposals
4. DCS Technology
  1. Plant Design
  2. Chilled Water Networks
  3. Reliability Aspects
5. DCS System Unit Technologies
  1. Chillers
  2. Compressors
  3. Evaporators
  4. Condensers
  5. Sub Coolers
  6. Economizers
  7. Expansion Valves
  8. Ice Storage Systems
  9. Insulation

## District Cooling Systems Technology Training Program (DCS308-2)

10. Heat Exchangers (ETS)
11. Cooling Towers
12. Heat Exchangers (ETS Rooms)
6. Mobile Chillers (Emergency and Temporary Supply)
7. Piping Network
8. Performance Aspects (COP under Different Working Conditions)
9. Performance Under Different Weather Conditions
10. Environmental Aspects
11. DCS Project Implementation
  1. Deployment Phasing
  2. Temporary Supply Arrangements
12. Regulatory Aspects
13. Workshop 1: DCS System Configuration
14. Maintenance Planning (Preventive and Corrective) of
  1. Chillers
  2. Compressors
  3. Evaporators
  4. Condensers
  5. Sub Coolers
  6. Economizers
  7. Expansion Valves
  8. Ice Storage Systems
  9. Insulation
  10. Heat Exchangers (ETS)
  11. Cooling Towers
  12. Heat Exchangers (ETS Rooms)
15. Condition Monitoring Technology Possibilities
16. Maintenance at DCS Plants
17. DCS System Operation Aspects
  1. Operational Planning
  2. Operational Risk Management
3. Contingency Plans
4. Monitoring Planning
5. Disaster Planning
6. Safety & Security Aspects
18. DCS Material Consumption Management
19. Workshop 2
20. DCS Detailed COP and KPI Performance Dashboard
21. DCS Operational Section Design Review Inputs
22. DCS Proactive Consumer-End Cooling Monitoring
23. Your Individualized Action Plan
24. Program Recommendations

### Who Should Attend?

This program is intended for DCS, HVAC and other related Professionals working for Developers, District Cooling System Providers, Government Agencies, Electrical Utilities and Building Owners.

This program can be used to train implementation teams - when a new DCS project or initiative is being started in your organization; when a new DCS strategic focus is being initiated; just prior to a consultant being hired to advise the organization regarding DCS Systems.

## District Cooling Systems Technology Training Program (DCS308-2)

### Program Outcomes and Take-Away/s

Euro Training is in the business of providing practical useful training programs. Programs that

1. Help the participant implement improvements in his organization.
2. Help the participant gain Multi-discipline understanding of the issues so that he can incorporate the needs and expectations of all his stakeholders/ customers in his improvement proposals and actions.
3. Help build a knowledge framework in which job related experience can be caught and remembered as his experience.

### Benefits to Organization

Sending participant/s to this program will benefit the organization in the following ways

1. Quickly makes the participants competent, effective and productive on his job. Useful especially for
  1. Training New employees
  2. Competency Building in Existing Employees Transferred to a New Assignment
  3. Training Prior to a New Project or Initiative Planned in the Organization
2. Create Competency in the employee to perform his job well. including in relation to
  1. Relevant Technical Knowledge, Skills and Competencies
  2. Organizations' Strategic Objectives
  3. Needs and Expectations of the Stakeholders/ Customers (internal & external)
  4. Good Management Practices
  5. Identifying opportunities to Exceed Stakeholder/ Customer Expectations

### Participant Individual Career Benefits

1. You gain a multi-discipline understanding of the issues. Meaning when you make proposals and decisions on your related job you will keep in mind the needs and expectations of ALL the stakeholders/ customers (internal & external)
2. The action plan you take away will help you make a difference in your business unit or organization!

### This Program is Intended for...

**Those new to the field** take away a good multi-discipline understanding of the issues involved in their work. It helps them in becoming productive quickly and in building a knowledge framework that will help them identify, understand, classify and remember on the job learning and experiences.

**More experienced participants** take away an individualized action plan as mentioned in the previous sections.

**Implementation Teams:** This program can be used to train implementation teams...

1. when a new project or initiative is being started in your organization
2. when a new strategic focus is being initiated
3. just prior to a consultant being hired to advise the organization

### For Latest Program Schedule Email

[dcs309-2@EuroTraining.com](mailto:dcs309-2@EuroTraining.com)

[www.eurotraining.com/bro/dcs309-2.php](http://www.eurotraining.com/bro/dcs309-2.php)

<b>REGISTRATION FORM</b>	
<b>Program:</b>	<b>District Cooling Systems Technology Training Program (DCS309-2)</b>
Location Where Attending:	
Program Dates:	
Whether Participant will Consider Alternate date if one requested is not available:	
Participant Name Prefix: Mr/Ms/Mrs	
Participant Name:	
Participant Job Title:	
Participant Department & Section:	
Participant Employer/ Company:	
Participant's Present Job Responsibilities:	
Participant Email Address:	
Participant Mobile Number:	
<u>Sponsored by:</u>	
Sponsoring Company:	
Job Title of Sponsoring Authority:	
Name of Sponsoring Authority:	
Email of Sponsoring Authority:	
Fax of Sponsoring Authority:	
Telephone Nos. of Sponsoring Authority:	
Web Site of Sponsoring Company:	
Invoice Reference:	
Invoicing Address:	

## REGISTRATION INFORMATION

- To register:** Please send us an official letter confirming registration (on organizational letterhead or Authorized Email).
- Program Fee is
  - USD \$7,900 per participant and includes Course Materials, Certificate, Refreshments and Lunch. (Fee at London, Paris and Kuala Lumpur is \$8,690 per participant).
- Accommodation & Taxes/VAT (if applicable) is not included in Program fee. Special rates will be available at venue hotel for the participants.
- Special discount of 10% is offered for participants who pay their fees at least 45 days before start of the program.
- Refund will not be considered where the participant cancels his registration less than 3 weeks before start of the program. Alternate nominations will be allowed anytime before program start.
- All participants are required to fill in Participant Information form - on first day of the program. Each program Undergoes Customization to Better Meet Participant Present and Future Career Needs. Please be prepared to let the Instructor/s know about your organization's Special Needs, Interests or Initiatives.
- It is always useful for participants to bring their existing problems or case studies, work-process flow charts or job related problems for discussion - consideration will be at sole discretion of the program director/s.
- Provisional Registration:** You can make a provisional registration by sending us an email – an official registration request can be made within 2 weeks. This will ensure we will reserve a seat. All provisional registrations automatically cancel 2 weeks before program start.