

TRAINING TITLE POWER SYSTEM COMMUNICATIONS

Training Duration 5 day

Training Venue and Dates

Ref. no. EE156 Power System Con	nmunications 5	16-20 June 2025	\$5,500	DUBAI, UAE
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In any of the 4 or 5-star hotels. The exact venue will be informed later.

Training Fees

• \$5,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Lunch

Training Certificate

Define Management Consultants Certificate of course completion will be issued to all attendees.

TRAINING DESCRIPTION

This course covers the key concepts of power system communications, focusing on the role of communication technologies in managing and controlling modern power grids. Participants will learn about communication protocols, network security, and the integration of communication systems with power management systems.

TRAINING OBJECTIVES

By the end of the course, participants will be able to understand

- Understand the role of communications in power systems.
- Learn about communication protocols used in smart grids and power systems.
- Explore the integration of communication networks with SCADA and other power management systems.
- Gain knowledge of network security and troubleshooting in power system communications.

WHO SHOULD ATTEND?

- Electrical engineers and power system professionals.
- IT and communication specialists working with power systems.
- Technicians and operators involved in grid management and automation.

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Students and professionals interested in power system communication technologies.

TRAINING METHODOLOGY

A highly interactive combination of lectures and discussion sessions will be managed to maximize the amount and quality of information and knowledge transfer. The sessions will start by raising the most relevant questions and motivating everybody to find the right answers. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.

Very useful Course Materials will be given.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Group Work& Practical Exercises
- 20% Videos& General Discussions

COURSE PROGRAM

Day 1: Introduction to Power System Communications

- Overview of power systems and their communication needs
- Role of communication systems in modern power grids
- Key components and communication infrastructure in power systems

Day 2: Communication Protocols in Power Systems

- SCADA and its communication protocols
- IEC 61850, Modbus, DNP3, and other key protocols
- Integration of communication protocols with power system control

Day 3: Networking and Communication Infrastructure

- Communication networks: Wired vs. wireless
- Fiber optics, power line communication, and radio communication
- Network design and architecture for power systems

Day 4: Security and Reliability in Power System Communications

- Cybersecurity risks in power system communications
- Security protocols and best practices
- Ensuring reliability and fault tolerance in communication networks

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Day 5: Troubleshooting and Case Studies

- Common issues in power system communications
- Troubleshooting techniques and tools

NOTE:

Pre-& Post Tests will be conducted.

Case Studies, Group Exercises, Group Discussions, Last Day reviews, and assessments will be carried out.



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