

Data Centre Professional Infrastructure: Design & Management





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Ref: 321731_145199 Date: 14 - 18 Jul 2025 Location: Barcelona (Spain) Fees: 4400 Euro

Course Description

This comprehensive 5-day course provides IT professionals with in-depth knowledge and practical skills for designing, implementing, and managing modern data centre infrastructure. Participants will explore key components including power, cooling, networking, security, and operational best practices. The course combines theoretical concepts with hands-on exercises to ensure a well-rounded understanding of data centre operations.

Learning Objectives

- Design efficient and scalable data centre infrastructure layouts
- Implement best practices for power distribution and cooling systems
- Develop comprehensive security and disaster recovery strategies
- Optimize data centre operations through effective management techniques
- Apply industry standards and regulations to data centre design and operations

Course Modules

Day 1: Data Centre Fundamentals and Design Principles

- Introduction to data centre concepts and terminology
- Site selection and facility planning
- Data centre tiers and reliability standards
- Scalable infrastructure design methodologies

Day 2: Power Infrastructure and Management

- Power distribution systems and redundancy
- Uninterruptible Power Supply UPS technologies
- Energy efficiency and PUE optimization
- Power monitoring and capacity planning

Day 3: Cooling Systems and Environmental Control

- Data centre cooling architectures
- HVAC systems and best practices
- Airflow management and containment strategies
- Environmental monitoring and control systems

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Day 4: Network Infrastructure and Connectivity

- Data centre network topologies and architectures
- Cabling systems and management
- Software-defined networking in data centres
- Storage area networks and converged infrastructure

Day 5: Security, Operations, and Management

- Physical and cyber security best practices
- Disaster recovery and business continuity planning
- Data Centre Infrastructure Management DCIM tools
- Operational procedures and documentation
- Emerging trends and technologies in data centres

Practical Wins for Participants

- Ability to design and optimize data centre layouts for maximum efficiency
- Skills to implement and manage robust power and cooling systems
- Expertise in developing comprehensive data centre security strategies
- Proficiency in using DCIM tools for effective infrastructure management



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