

Advanced Gas Turbine Technology: Design and Operation

2027 17 - 13
Istanbul (Turkey)

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Advanced Gas Turbine Technology: Design and Operation

R20222955 | 2170283 | Location: Istanbul (Turkey) **Fees:** 4900 GBP

Course Description

This comprehensive 5-day course covers the fundamentals of gas turbine technology, focusing on design principles, operational characteristics, and control systems. Participants will gain in-depth knowledge of gas turbine components, thermodynamics, and performance analysis, as well as practical skills in troubleshooting and maintenance.

Learning Objectives

- Understand gas turbine design principles and operational characteristics
- Analyze gas turbine performance and efficiency
- Master control systems and protection mechanisms
- Develop skills in troubleshooting and maintenance procedures
- Gain insights into emerging trends and future developments in gas turbine technology

Course Modules

Day 1: Introduction to Gas Turbine Technology

- Overview of gas turbine applications and types
- Thermodynamic principles and cycles
- Major components and their functions
- Performance parameters and efficiency calculations

Day 2: Gas Turbine Design and Components

- Compressor design and aerodynamics
- Combustion systems and fuel technologies
- Turbine section design and materials
- Auxiliary systems and integration

Day 3: Operational Characteristics and Control

- Start-up and shutdown procedures
- Load control and power management
- Emissions control and environmental considerations
- Advanced control systems and instrumentation

A graphic featuring a chessboard with several chess pieces (a king, a queen, and a rook) in the foreground. In the background, there are concentric circles and the text 'UK Training PARTNER' in a bold, sans-serif font.

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Day 4: Performance Analysis and Optimization

- Performance monitoring and data analysis
- Degradation factors and their impact
- Condition-based maintenance strategies
- Performance enhancement techniques

Day 5: Troubleshooting, Maintenance, and Future Trends

- Common operational issues and troubleshooting
- Preventive and predictive maintenance practices
- Emerging technologies and future developments
- Case studies and practical applications

Practical Wins for Participants

- Ability to optimize gas turbine performance and efficiency
- Enhanced troubleshooting and problem-solving skills
- Improved maintenance planning and execution capabilities
- Understanding of latest trends for future-proofing operations

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