XCELERATE TRAINING INSTITUTE

your learning & development partner

ELECTRICAL ENGINEERING

Advanced Renewable Energy Engineering Course

DURATION	LANGUAGE	FORMAT
5 days	English	Classroom / Online

Upcoming dates

Dates	Venue	Format	Fee
22 – 26 Feb 2027	Live online	Online (live)	€1,200
2 – 6 Aug 2027	Live online	Online (live)	€1,200
6 – 10 Sep 2027	Dubai	Classroom	€4,800

Register or ask a question

Online: x8ti.com/course/advanced-renewable-energy-engineering-course/

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Advanced Renewable Energy Engineering Course

Introduction

This course by Xcelerate Training Institute offers a comprehensive understanding of renewable energy sources and their applications. It covers the fundamentals, technologies, and challenges associated with various renewable energy options like solar, wind, hydro, geothermal, and ocean energy.

Learning Objectives

- Understand the principles behind different renewable energy sources.
- Identify the technical challenges and environmental impacts of each source.
- Analyze and compare different renewable energy systems.
- Choose the most suitable renewable energy technology based on specific needs.
- Perform basic techno-economic assessments of renewable energy projects.
- Design and plan renewable energy systems for sustainability and efficiency.

Training Methodology

Introduction and Overview

- Course Objectives: Clearly outline the goals and what participants will achieve by the end of the course.
- Course Outline: Provide a detailed schedule of topics to be covered.

Theoretical Sessions

- Lectures: Deliver comprehensive lectures on advanced concepts in renewable energy engineering.
- Case Studies: Analyze real-world scenarios to understand practical applications.
- Group Discussions: Encourage participants to discuss and share their insights on various topics.

Practical Sessions

- Hands-On Workshops: Conduct practical exercises using simulation tools and equipment.
- Lab Sessions: Allow participants to work on actual renewable energy systems.
- Site Visits: Organize visits to renewable energy plants or facilities for real-world exposure.

Interactive Learning

- Role-Playing: Simulate real-life situations where participants can practice decision-making.
- Problem-Solving Exercises: Present challenges that require participants to apply their knowledge.
- Q&A Sessions: Provide opportunities for participants to ask questions and clarify doubts.

Assessment and Feedback

- Quizzes and Tests: Conduct regular assessments to gauge understanding.
- Project Work: Assign projects that require participants to apply what they've learned.
- Feedback Sessions: Gather feedback from participants to improve future courses.

Certification

- Certification Exam: Administer a final exam to test overall knowledge.

- Certification Ceremony: Award certificates to participants who successfully complete the course.

Benefits for Your Organisation

- Reduce energy-related downtime and improve grid management.
- Enhance safety, productivity, and competitiveness through efficient systems.
- Gain expertise in managing renewable energy sources and technologies.

Benefits for You

- Develop awareness of various renewable energy types and their advantages.
- Understand the differences between renewable and non-renewable energy.
- Learn how to implement renewable energy projects for a sustainable future.

Who Should Attend

This course is designed for a broad audience, including:

- Engineers (Project, Electrical, Power Generation, Transmission)
- Management Professionals
- Maintenance Technicians
- Anyone seeking an overview of renewable energy technologies or wanting to refresh their knowledge.

Course Outline

Basics of Electricity:

Understanding fundamental electrical concepts like power, current, voltage, and their relationships.

Solar Energy:

Exploring solar photovoltaic (PV) systems, their applications, and economic considerations.

Concentrated Solar Power (CSP):

Learning about different CSP technologies, their efficiency, and cost factors.

Wind Energy:

Examining wind resources, wind turbines, and their environmental impact.

Ocean Energy:

Discovering the potential of ocean energy sources like tides, waves, and biomass.

Hydropower:

Understanding hydro energy generation technologies and their components.

Geothermal Energy:

Exploring geothermal resources and the technologies used to harness this energy source.

Bioenergy:

Learning about biogas production, utilization, and different types of CHP units.

Hybrid Power Systems:

Understanding the design and economic evaluation of hybrid renewable energy systems.

Renewable Energy Projects:

Exploring the project development cycle, financial considerations, and external factors related to renewable energy projects.

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Registration Form

Advanced Renewable Energy Engineering Course

Preferred dates: ..... Venue or online: .....

Duration: 5 days Language: .....

Please complete and email this form to us, or register online. We confirm your place and send the invoice within one working day.

Delegate information

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

Official email: ..... Personal email: .....

Company information

Company name: .....

Address: .....

City / country: ..... VAT / tax number: .....

Person responsible for training & development

Full name (Mr / Ms / Dr / Eng): .....

Position: ..... Telephone / mobile: .....

Email: .....

Payment

☐ Please invoice me ☐ Please invoice my company

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