



Power Generation & Utilities

Power System Analysis: Load Flow & Short Circuit

تحليل أنظمة القوى: سريان الأحمال وقصر الدائرة

Duration

5 or 10 days

Language

English or Arabic

Formats

Classroom, online, in-house

Hours

35 / 70

Overview

Power System Analysis: Load Flow & Short Circuit is part of the Power Generation & Utilities track at Garnet Global Training Center. Operation and maintenance of power plants, grids and utility services. The course is taught in English or Arabic as a 5-day or 10-day program, in classrooms in cities such as Dubai, Riyadh, Cairo, London and Istanbul, or live online, and it can be delivered in-house with examples and exercises built around your own operations.

What you will be able to do

- Explain the principles, terminology and standards that govern Power System Analysis: Load Flow & Short Circuit.
- Apply proven methods and tools to real situations from your own workplace.
- Analyse performance gaps, risks and root causes, and choose the right response.
- Measure results with practical indicators and report them clearly to management.
- Leave with a personal action plan you can start using the following week.

Who should attend

Power plant engineers, operators, utility planners and grid specialists.

Key topics

- Thermodynamics and plant performance
- Boilers, turbines and generators
- Grid operation and dispatch
- Reliability and outage planning
- Emissions and environmental compliance
- Plant case studies

Formats and fees

5-day classroom	USD 4,750
5-day online	USD 2,950
10-day classroom	USD 8,950
10-day online	USD 5,450
In-house	Quotation per group

Fees per participant, excluding VAT.

Register or ask

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Email: info@garnettrainings.com

Training: training@garnettrainings.com

Web: www.garnettrainings.com

Sharjah Publishing City Free Zone,
Sharjah, UAE

Certificate

Participants who attend at least 90% of sessions and complete the final assessment receive a certificate of completion stating 35 contact hours (5-day) or 70 contact hours (10-day).

5-day outline

Day 1 Foundations of Power System Analysis: Load Flow & Short Circuit

- Scope, terminology and governing standards
- Thermodynamics and plant performance

Day 2 Methods and tools

- Boilers, turbines and generators
- Grid operation and dispatch

Day 3 Application and case studies

- Reliability and outage planning
- Plant case studies

Day 4 Performance, risk and compliance

- Emissions and environmental compliance
- Measurement and reporting

Day 5 Workshop, assessment and action plan

- Hands-on workshop on a workplace challenge
- Final assessment and personal action plan

10-day outline

Day 1 Foundations of Power System Analysis: Load Flow & Short Circuit

- Scope, terminology and governing standards
- Thermodynamics and plant performance

Day 2 Methods and tools

- Boilers, turbines and generators
- Grid operation and dispatch

Day 3 Application and case studies

- Reliability and outage planning
- Plant case studies

Day 4 Performance, risk and compliance

- Emissions and environmental compliance
- Measurement and reporting

Day 5 Workshop, assessment and action plan

- Hands-on workshop on a workplace challenge
- Final assessment and personal action plan

Day 6 Advanced techniques and specialist practice

- Complex cases in depth
- Common mistakes and how to avoid them

Day 7 Digital tools, data and automation

- Analysis tools and software
- Using AI in this field

Day 8 Benchmarking against international practice

- Global performance benchmarks
- International case studies

Day 9 Capstone project

- Analyse a real challenge from your organisation
- Build the solution and implementation plan

Day 10 Presentations, final assessment and certificates

- Project presentations and review
- Final exam and certificate award

Schedule 2027–2030

Dates	Format	City	Language	Fee (USD)
1–5 Feb 2027	5-day classroom	Vienna	English	4,750
20–24 Jun 2027	5-day classroom	Riyadh	English	4,750
9–20 Aug 2027	10-day online	Live online	Arabic	5,450
6–17 Sep 2027	10-day classroom	Barcelona	English	8,950
11–15 Oct 2027	5-day online	Live online	English	2,950
8–19 May 2028	10-day classroom	Barcelona	English	8,950
19–30 Jun 2028	10-day online	Live online	Arabic	5,450
14–18 Aug 2028	5-day classroom	Dubai	English	4,750
18–22 Sep 2028	5-day online	Live online	English	2,950

Dates	Format	City	Language	Fee (USD)
2–6 Oct 2028	5-day classroom	Singapore	English	4,750
12–16 Feb 2029	5-day classroom	Paris	English	4,750
2–13 Apr 2029	10-day online	Live online	Arabic	5,450
15–26 Jul 2029	10-day classroom	Riyadh	English	8,950
20–24 Aug 2029	5-day online	Live online	English	2,950
10–14 Sep 2029	5-day classroom	Singapore	English	4,750
6–10 May 2030	5-day classroom	Abu Dhabi	English	4,750
18–29 Aug 2030	10-day classroom	Kuwait City	Arabic	8,950
9–13 Sep 2030	5-day classroom	Barcelona	English	4,750
7–11 Oct 2030	5-day online	Live online	Arabic	2,950
16–27 Dec 2030	10-day online	Live online	English	5,450

Customised and in-house versions of this course are available on request. www.garnettrainings.com/en/customise/