Garnet
Garnet Global Training Center

GGT-FE-116

Fire Engineering & Fire Protection **Rare specialisation**

Fire Modelling & Smoke Simulation

نمذجة الحريق ومحاكاة الدخان

Duration	Language	Formats	Hours	Level
5 or 10 days	**English or Arabic**	**Classroom, online, in-house**	**35 / 70**	**Intermediate (practitioner)**

Overview

Fire Modelling & Smoke Simulation focuses on how the work is actually done: the methods, checks and decisions practitioners use every day, illustrated with real cases from the region. Prevent, detect and control fire with the right design, systems and inspection. Choose 5 or 10 days, classroom or live online, English or Arabic; organisations can also run it in-house and adapt the examples to their own work.

What you will be able to do

- Apply the methods and standards of Fire Modelling & Smoke Simulation to real tasks.
- Avoid the mistakes that most often cause rework or failure.
- Share good practice with your team.
- Use the right tools, checks and calculations step by step.
- Diagnose common problems and identify root causes.

Who should attend

Fire engineers, fire safety officers, MEP designers, inspectors and facility managers. Practitioners with one to five years of experience benefit most.

Key topics

- Fire science
- Codes: NFPA and local codes
- Detection and alarm
- Suppression systems
- Means of egress
- Inspection and maintenance

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: 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 Fire Modelling & Smoke Simulation: principles and standards

- Codes: NFPA and local codes
- Regional and international case studies

Day 2 Methods and tools in practice

- Detection and alarm
- Suppression systems

Day 3 Diagnosis and problem solving

- Means of egress
- Checklists and templates to take away

Day 4 Quality, safety and documentation

- Inspection and maintenance
- Group discussion and peer review

Day 5 Workshop, assessment and action plan

- Fire science
- Measurement and reporting

10-day outline

Day 1 Fire Modelling & Smoke Simulation: principles and standards

- Codes: NFPA and local codes
- Regional and international case studies

Day 2 Methods and tools in practice

- Detection and alarm
- Suppression systems

Day 3 Diagnosis and problem solving

- Means of egress
- Checklists and templates to take away

Day 4 Quality, safety and documentation

- Inspection and maintenance
- Group discussion and peer review

Day 5 Workshop, assessment and action plan

- Fire science
- Measurement and reporting

Day 6 Advanced techniques and specialist practice

- Complex cases in depth
- Hands-on workshop on a workplace challenge

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
- Common mistakes and how to avoid them

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)
8–12 Feb 2027	5-day classroom	Geneva	English	4,750
21–25 Mar 2027	5-day classroom	Doha	Arabic	4,750
15–19 Nov 2027	5-day online	Live online	Arabic	2,950
19–30 Dec 2027	10-day classroom	Cairo	Arabic	8,950
17–21 Jan 2028	5-day classroom	London	English	4,750
6–10 Mar 2028	5-day classroom	Dubai	English	4,750
5–16 Jun 2028	10-day online	Live online	Arabic	5,450
8–19 Oct 2028	10-day classroom	Doha	English	8,950
19 Feb – 2 Mar 2029	10-day classroom	Dubai	English	8,950

Dates	Format	City	Language	Fee (USD)
5–9 Mar 2029	5-day online	Live online	Arabic	2,950
3–7 Sep 2029	5-day classroom	Abu Dhabi	Arabic	4,750
9–13 Dec 2029	5-day classroom	Jeddah	Arabic	4,750
14–25 Jan 2030	10-day classroom	Paris	English	8,950
4–15 Mar 2030	10-day online	Live online	English	5,450
14–18 Jul 2030	5-day classroom	Jeddah	Arabic	4,750
9–13 Dec 2030	5-day classroom	Dubai	Arabic	4,750

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