Garnet
Garnet Global Training Center

GGT-WT-125

Water, Wastewater & Desalination **Rare specialisation**

Water Hammer & Surge Analysis

ظاهرة المطرقة المائية وتحليل الاندفاع

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

Overview

Water Hammer & Surge Analysis turns established good practice into step-by-step methods that participants rehearse in exercises and then apply at work. Treatment, networks and desalination programs for water utilities and industry. 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 Water Hammer & Surge Analysis to real tasks.
- Follow safe, compliant and documented work practices.
- 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.

Who should attend

Water utility engineers, plant operators, network and environmental specialists. Practitioners with one to five years of experience benefit most.

Key topics

- Water quality and standards
- Treatment processes
- Networks, pumping and losses
- Plant operation and chemicals
- Energy use in water systems
- Regulation and reporting

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 Water Hammer & Surge Analysis: principles and standards

- Plant operation and chemicals
- Hands-on workshop on a workplace challenge

Day 2 Methods and tools in practice

- Energy use in water systems
- Regulation and reporting

Day 3 Diagnosis and problem solving

- Water quality and standards
- Common mistakes and how to avoid them

Day 4 Quality, safety and documentation

- Treatment processes
- Regional and international case studies

Day 5 Workshop, assessment and action plan

- Networks, pumping and losses
- Checklists and templates to take away

10-day outline

Day 1 Water Hammer & Surge Analysis: principles and standards

- Plant operation and chemicals
- Hands-on workshop on a workplace challenge

Day 2 Methods and tools in practice

- Energy use in water systems
- Regulation and reporting

Day 3 Diagnosis and problem solving

- Water quality and standards
- Common mistakes and how to avoid them

Day 4 Quality, safety and documentation

- Treatment processes
- Regional and international case studies

Day 5 Workshop, assessment and action plan

- Networks, pumping and losses
- Checklists and templates to take away

Day 6 Advanced techniques and specialist practice

- Complex cases in depth
- Group discussion and peer review

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
- Measurement and reporting

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)
14–18 Mar 2027	5-day classroom	Manama	Arabic	4,750
3–7 May 2027	5-day classroom	Amsterdam	English	4,750
12–23 Jul 2027	10-day classroom	Abu Dhabi	English	8,950
6–10 Sep 2027	5-day online	Live online	Arabic	2,950
7–18 Feb 2028	10-day online	Live online	English	5,450
5–9 Jun 2028	5-day classroom	Kuala Lumpur	English	4,750
7–18 Aug 2028	10-day classroom	Dubai	English	8,950
10–14 Dec 2028	5-day classroom	Jeddah	Arabic	4,750
19–23 Feb 2029	5-day online	Live online	English	2,950

Dates	Format	City	Language	Fee (USD)
18–22 Mar 2029	5-day classroom	Cairo	English	4,750
16–20 Jul 2029	5-day classroom	Kuala Lumpur	English	4,750
19–30 Nov 2029	10-day classroom	Dubai	English	8,950
10–21 Mar 2030	10-day classroom	Riyadh	Arabic	8,950
15–26 Apr 2030	10-day online	Live online	English	5,450
2–6 Jun 2030	5-day classroom	Kuwait City	Arabic	4,750
8–12 Jul 2030	5-day classroom	Dubai	Arabic	4,750

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