Garnet
GLOBAL TRAINING CENTER

GGT-GI-134
Course brochure

GIS, Geospatial & Remote Sensing

Hydrological Modelling with GIS

النمذجة الهيدرولوجية باستخدام نظم المعلومات الجغرافية

Duration	Format	Language	Level
5 days (35 h) or 10 days (70 h)	**Classroom / online / in-house**	**English or Arabic**	**Intermediate**

Overview

Hydrological Modelling with GIS is a practical GIS, Geospatial & Remote Sensing program. Delineate watersheds, model runoff and map floods using DEMs, HEC-HMS and HEC-RAS with GIS. Every day pairs short theory sessions with hands-on exercises on real data and case studies, so participants leave with methods and templates they can use at work straight away. Join a public session in one of 20 cities or live online, in English or Arabic, or run it in-house with examples from your own projects.

What you will be able to do

- Apply DEM preparation and terrain processing at work.
- Apply watershed and stream network delineation at work.
- Apply rainfall-runoff modelling (HEC-HMS) at work.
- Apply flood inundation mapping (HEC-RAS) at work.
- Apply stormwater and wadi flood applications at work.

Who should attend

GIS analysts and technicians, surveyors, planners, engineers, environmental specialists and managers who use spatial data.

5-day outline

Day 1 — **DEM preparation and terrain processing**
- Worked examples from real projects
- Practical workshop

Day 2 — **Watershed and stream network delineation**
- Tools, templates and best practice
- Case study and group discussion

Day 3 — **Rainfall-runoff modelling (HEC-HMS)**
- Concepts, methods and standards
- Hands-on exercise

Day 4 — **Flood inundation mapping (HEC-RAS)**
- Worked examples from real projects
- Practical workshop

Day 5 — **Stormwater and wadi flood applications**
- Tools, templates and best practice
- Capstone exercise and action plan

10-day option: adds Advanced methods and tools, Industry case studies, Integration with other systems and data, Quality, standards and governance, Capstone project and presentation.

Fees per participant

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 at your premises	**Quotation per group**

Fees exclude VAT and include materials and the certificate of completion; classroom fees include lunch and refreshments.

Certificate

Certificate of completion stating 35 or 70 contact hours for participants who attend at least 90% of sessions and pass the final assessment.

Upcoming sessions

Dates	Format	City	Language
8–12 Feb 2027	5-day classroom	Paris	English
14–18 Feb 2027	5-day classroom	Manama	English
22 Mar – 2 Apr 2027	10-day classroom	Abu Dhabi	English
19–23 Apr 2027	5-day online	Live online	Arabic
31 Jan – 4 Feb 2028	5-day classroom	Dubai	English
14–18 Feb 2028	5-day classroom	Barcelona	English

Full schedule to 2030 on the course page. We can also run it on your dates, in your city or in-house.

Register or ask
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