



FEFLOW ONLINE TRAINING

Get most out of FEFLOW without leaving your office

DHI offers an online course program on groundwater-modelling topics which allows you to learn from home or office. Avoid tight schedules and high travel expenses and benefit from a flexible learning environment.

Our instructor-led online courses are designed as a combination of hands-on software exercises and lectures on theory and relevant practical aspects.

This groundwater course program covers a variety of different topics such as groundwater modelling at mine sites, groundwater resources management, optimization of daily modelling workflows, geothermal applications and much more.

FEFLOW is widely recognised as a most comprehensive software package for subsurface flow and transport simulation. FEFLOW's unique meshing capabilities (structured and unstructured) provide the highest degree of flexibility in all modelling processes. The software is used by leading research institutes, universities, consulting firms and government organisations all over the world.

Online Modules:

Module 1: Mass transport and reactive transport (4 h)

Mass transport in FEFLOW stand-alone, equilibrium and non-equilibrium reactions and piChem plug-in basic introduction to PHREEQC definitions.

Module 2: Optimization of daily workflows in groundwater modelling (6 h)

IFM programming interface (C++), optimization of daily modelling tasks with the Python interface, pre- and post-processing model data, user-customization of results (e.g. export to external files), budget analysis, work with time series.

Module 3: Modelling of geothermal applications (6 h)

Shallow geothermal systems (open/closed loops) and their optimization, deep geothermal systems (density effects, boundary conditions and more).

Module 4: Groundwater resources management (6 h)

Groundwater age methods (2D/3D) for capture zone delineation, budget analysis (water origin and sources), optimization of water resources, vulnerability analysis, surface water and groundwater interaction.

Module 5: Groundwater modelling for open-cast mining (6 h)

Open-cast mines, estimation of dewatering volumes, pore pressure and drawdown maps, simulation of variably saturated conditions, inclusions of faults and anisotropic media.

Module 6: Groundwater modelling for underground mining (6 h)

Underground mines, estimation of dewatering volumes, simulation of shafts, adits and other engineering structures, simulation of variably saturated conditions.

Module 7: Automatic model calibration and uncertainty analysis with FePEST (6 h)

Introduction to the FePEST interface, model calibration with pilot points and regularization methods, uncertainty analysis from a decision-maker perspective, uncertainty to model predictions (Do you trust your predictions?), sensitivity analysis (best/worst case scenario).

SESSION DATES 2018

- Module 1: Feb 5, Feb 7
- Module 2: Feb 19, Feb 21, Feb 23
- Module 3: Mar 12, Mar 14, Mar 16
- Module 4: Apr 16, Apr 18, Apr 20
- Module 5: May 14, May 16, May 18
- Module 6: Jun 4, Jun 6, Jun 8
- Module 7: Jun 25, Jun 27, Jun 29

TIME

Each module session has a length of 2 hours.

- 17:00 - 19:00 CET (Berlin, Germany)
- 09:00 - 11:00 MST (Calgary, Canada)
- 11:00 - 13:00 EST (New York, U.S.A.)
- 11:00 - 13:00 PET (Lima, Peru)

FEES

300,- EUR for each Module.

THIS IS INCLUDED

- Training material (digital version)
- Software license during course
- Training certificate

LANGUAGE

The official language of the course is English, but it will be possible to formulate questions in Spanish and German.

REGISTRATION AND CONTACT

A minimum of trainees is required for each course to proceed. DHI reserves the right to reschedule or cancel the training course. Registrants will be notified and offered to switch to different course or receive a full refund.

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TARGET GROUP AND PREREQUISITES

Groundwater professionals working in consulting companies, public authorities, university and research institutions. Participants are expected to have both a basic knowledge of groundwater modelling as well as computer application.

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RELATED COURSES

- FEFLOW - Introduction to groundwater modelling
- FEFLOW - Advanced groundwater modelling
- FEFLOW - Introduction to IFM Programming
- FEFLOW/FePEST - Introduction to model calibration, uncertainty analysis and predictive analysis
- NUMERICAL MODELLING FOR GEOTHERMAL INSTALLATIONS - Application of FEFLOW in near-surface and deep geothermic
- GROUNDWATER MODELLING AT MINE SITES - Introduction to using FEFLOW in mining
- MIKE SHE - Integrated catchment modelling



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www.theacademybydhi.com/courses-and-events-calendar

INSTRUCTOR

CARLOS A. RIVERA VILLARREYES

Dr. Carlos Rivera works as the Director Sales Service and Support at DHI WASY, Germany. Within his activities, he leads the FEFLOW user support team. Dr. Rivera has trained professionals around the world in different groundwater modelling topics in English and Spanish. Dr. Rivera has profound knowledge of groundwater and unsaturated-zone modelling as well as parameter estimation (model calibration, e.g., with PEST).



Dipl.-Ing. (FH), Civil Engineering, University of Piura, Peru

MSc, Desert Studies - Water Resources Management, Ben-Gurion University, Israel

PhD, Hydrology, University of Potsdam, Germany

THE ACADEMY BY DHI

THE ACADEMY offers a palette of courses and capacity building packages designed to fit your needs and challenges. We offer standard and/or tailored training - face-2-face as well as online.

MIKE Powered by DHI courses focus on practical skills, hands-on exercises and teaching you how to get the most out of your software. These courses also enable you to understand the power of the MIKE tools for building decision support systems.

Thematic courses allow you to apply concepts, applications and decision support principles to the entire business process within current areas: aquaculture and agriculture, energy, climate change, flooding, coast and marine, surface and groundwater, urban water, industry, environment and ecosystems, product safety and environmental risk, etc.

Our trainers are experienced professionals, many of whom are recognised international experts in their fields. The use of highly skilled trainers guarantees the quality of THE ACADEMY courses.

Learn more about THE ACADEMY on www.theacademybydhi.com

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