

COURSES AND EVENTS CALENDAR 2018

CANADA

FLOODING, URBAN WATER, COAST & MARINE, SURFACE & GROUNDWATER

BUILDING EXPERTISE



COURSES AND EVENTS CALENDAR 2018

	FOCUS AREA	TITLE	TORONTO, ON	VANCOUVER, BC	ONLINE
SURFACE & GROUNDWATER	MIKE TECHNOLOGY	An introduction to the premier software suite for modelling all types of water environments			Aug 23
	MIKE SHE	Opportunity and challenges with integrated watershed hydrology modelling			Mar 6
	FEFLOW	Optimization of daily workflows in groundwater modelling			May 17
	FEFLOW	Introduction to groundwater modelling for subsurface flow and transport simulation	June 27-29		
	MIKE SHE	Ask an expert. An open forum.			Oct 25
	FEFLOW	Groundwater modelling at mine sites: dewatering, reactive transport, and more			Jul 26
	MIKE 21C	Introduction to sediment transport modelling for lakes, rivers, and reservoirs			Aug 21
	FEFLOW	Mine dewatering and pore pressure modelling in a complex geologic system			Oct 11
URBAN WATER	MIKE FLOOD	Introduction to coupled 1D-2D flood modelling			Apr 19
	MIKE URBAN	Ask an expert. An open forum.			Feb 15
	WATERNET ADVISOR	Introduction to web based management and analysis of water distribution systems			Jul 17
	MIKE FLOOD	Integrated 1D and 2D urban flood modelling	Sept 17-18		
	MIKE URBAN	Our cities are going green: Modelling green infrastructure using MIKE URBAN			Sept 27
COAST AND MARINE	MIKE 21 MOORING ANALYSIS (MA)	Introduction to evaluation and optimization of vessel mooring			Feb 6
	MIKE ECO LAB	Modelling water, habitats, and behaviour in a changing world			Mar 22
	FEEDBACK EEMP	Proactive and adaptive measures for the management of coastal development induced sediment plume impacts		Mar 2	
	MIKE 21	Coastal dynamics: how to effectively model sediment transport			Aug 14

MIKE TECHNOLOGY

Introduction to the premier software suite for modeling all types of water environments

This free, one-hour webinar will introduce you to the world of MIKE Powered by DHI technologies. Across the globe, water professionals know MIKE Powered by DHI is the gold standard. The total coverage and truly integrated modeling possibilities of our product range is unmatched by any similar software family. We offer everything from off-the-shelf software to highly customizable, cost-effective and sustainable IT solutions, developed specifically for your project.

- MIKE simulation software
- MIKE OPERATIONS
- Data services
- CloudBridge
- Technology access
- Compute capabilities

MIKE SHE

Opportunity and challenges with integrated watershed hydrology modeling

During this free, one-hour webinar, we'll discuss Integrated Watershed Hydrology Modeling, the cornerstone technology for estimating climate change impacts on water supply and demand; performing comprehensive water balances; evaluating conjunctive use impacts of groundwater extraction on surface water bodies; optimizing irrigation for agriculture operations; developing wetland management strategies; assessing the impacts of urbanization on local hydrology; and more.

- Considerations, limitations and benefits of using Deterministic, Stochastics, and Lumped hydrological models (MIKE SHE, NAM)
- Integration of hydrological and hydraulic models (MIKE FLOOD, MIKE HYDRO)
- How to work with the model, user interface, and available pre and post-processing facilities
- Application examples: Flood and drought monitoring, Flood Forecasting and Data Assimilation

FEFLOW

Optimization of daily workflows in groundwater modeling

This free, one hour webinar provides fundamentals and approaches for FEFLOW customization using the Interface Manager IFM (C/C++) and the Python interface. You will get an overview of the necessary tools for optimizing your daily workflow as a groundwater modeler.

- When to use Interface Manager (C/C++) and when to use Python
- Overview of different applications with FEFLOW Python Interface
- Best practice to get started optimizing workflows with FEFLOW Python interface
- An introductory example of FEFLOW Python interface

MIKE SHE

Ask an expert. An open form.

If you had time for an open discussion with MIKE Powered by DHI staff, what would you ask? In our series of "Ask an Expert" webinars, we give you that chance. Any question - from beginner to advanced - is welcome, and will be addressed in an open forum. This session will focus on MIKE SHE, the most widely used software for fully coupled and fully integrated surface water and groundwater modeling.

- Available codes for integrated groundwater/surface water modeling
- Hydrological processes simulated by MIKE SHE
- Mechanisms to couple the hydrological processes
- Integrated water quality modeling in MIKE SHE
- Pitfalls of integrated groundwater/surface water modeling

FEFLOW

Groundwater modeling at mine sites: dewatering, reactive transport, and more

This free, one hour webinar covers typical modeling tasks such as mine dewatering (open-cut and underground mines), groundwater rebound, reactive transport (acid mine drainage), etc.

- Groundwater modeling at mine sites
- Estimation of dewatering volumes
- Simulation of pit progress
- Faults, fractured systems, and anisotropic porous media
- Introduction to reactive transport with piChem module (acid mine drainage)
- Interfacing with geological modeling

FEFLOW

Introduction to groundwater modelling for subsurface flow and transport simulation

This three-day, hands-on course in Cambridge, ON provides you with an introduction to groundwater modelling using FEFLOW. You will learn the basic concepts of the software through building two and three-dimensional flow and solute-transport models applying the most important programme functions, including pre-processing, simulation and results evaluation.

- Introduction to FEFLOW
- The graphical user interface
- Creating 2D and 3D mesh geometries (structured and unstructured meshes)
- FEFLOW's interface with geological software
- Setting up flow models with confined and unconfined aquifers
- Setting up mass-transport models
- Setting up groundwater-age models
- Steady-state and transient models
- Usage of GIS/CAD data interfaces and other formats

MIKE 21C

Introduction to sediment transport modeling for lakes, rivers, and reservoirs

This free, one hour webinar will teach you the theoretical and practical aspects of cohesive and non-cohesive sediment transport modeling in rivers and reservoirs. MIKE 21 Curvilinear (MIKE 21C) consists of a curvilinear hydrodynamics module (CHD) and a sediment transport model (CST). A curvilinear grid generator is also available for preparation of the curvilinear grids for the simulations.

- Grid generation
- Hydrodynamics
- Helical flow
- Non-cohesive and cohesive sediment transport
- Morphological calculations
- Substrate modeling

FEFLOW

Mine dewatering and pore pressure modeling in a complex geologic system

This free, one-hour webinar offers a case study of a state-of-the-art groundwater flow model that was developed in a complex hydrogeologic setting to improve pore pressure estimate reliability and optimise a dewatering system with respect to CAPEX and OPEX costs. The high-resolution 4D groundwater flow model for transient pit wall pore pressure and mine inflow estimates was developed for a large open pit mine in Peru.

- Real case study from a project in Peru
- Application of a fully unstructured mesh
- Uses of the model and results

MIKE FLOOD

Integrated 1D-2D urban flood modelling

This two-day, hands-on course in Toronto, ON will teach you urban flood modelling by integrating the 1D urban drainage model (MU CS) and 2D overland flow model (MIKE 21). The emphasis is on establishing a 2D overland flow model followed by coupling the 1D and 2D model components to simulate the fully integrated flow dynamics between sewage/storm water systems and surface areas

- Introduction to 2D overland flow modelling with MIKE 21
- Building urban bathymetries
- Preparing MIKE URBAN models for coupling with MIKE 21
- MIKE FLOOD graphical editor
- Coupling of 1D and 2D models with MIKE Zero
- Coupling 1D and 2D models with MIKE URBAN 2D Overland Flow
- 1D-2D linkage options; stability issues

MIKE FLOOD

Introduction to coupled 1D-2D flood modelling

This free, one hour webinar will give you an introduction to MIKE FLOOD's capabilities for integrated one and two dimensional flood modeling. You will see how to set up a coupled model combining a 1D sewer network, a 1D river network, and a 2D floodplain, as well as how to visualize results.

- Why couple 1D and 2D models together?
- 1D-2D coupling concepts
- Considerations, limitations, and benefits of 1D and 2D models
- Possible application areas
- How to work with the model, including presentation of user interface and available pre and post - processing facilities

WATERNET ADVISOR

Introduction to web based management and analysis of water distribution systems

This free, one hour webinar will provide a live demonstration of WaterNet Advisor – an exciting new web based modelling tool that allows water utilities to quickly and efficiently operate their hydraulic model from various devices such as personal computers, smart phones, and tablets (mobile devices). The webinar will also showcase WaterNet Online's ability to receive real-time data from SCADA, offering real time, hindcasting and forecasting capabilities.

- Considerations, limitations and benefits of using the model
- Possible application areas
- Quick review of the theory behind the calculations
- How to work with the model, including presentation of user interface and available pre- and post-processing facilities
- Application examples

MIKE URBAN

Our cities are going green: Modeling green infrastructure using MIKE URBAN

This free, one hour webinar provides an introduction to different approaches of modelling green infrastructure in MIKE URBAN and their effect on different types of storm events. Intro to storm water quality and treatment options. The webinar encompasses all types of green infrastructure practices on the local level including bio-retention cells, rain gardens, green roofs, infiltration trenches, permeable pavements, rain barrels and vegetative swales.

- Modeling of green solutions at screening level
- Modeling of green infrastructure at a detailed hydraulic level
- Storm water quality and the modeling thereof
- Applying treatment water quality measures to various types of green infrastructure

MIKE 21 MOORING ANALYSIS (MA)

Introduction to evaluation and optimization of vessel mooring

This free, one hour webinar, introduces you to the fundamentals of dynamic mooring analysis and gives you an introduction on how to set up a moored ship in a port subject to environmental forcings such as waves, currents and wind. The webinar will also help you assess vessel motions, fender and line forces, which is of utmost importance when planning for port design and operations.

- Introduction to mooring analysis
- Theoretical background and application areas of MIKE 21 MA
- Frequency response of a moored vessel
- Convergence of a moored vessel
- Generation of external forcings (e.g. waves)

Feedback EMMP

Proactive and adaptive measures for the management of coastal development induced sediment plume

This one day course in Vancouver, BC covers coastal development activities that cause sediment plumes, the physiochemical factors that determine their behaviour, and their associated impacts on marine and coastal environments. We'll discuss methods that can help sustainably manage these impacts during both project design and implementation.

- Analysis of source activities: Dredge, reclamation, and other projects and how sediment "spills"
- The dynamics of plume behaviour
- Potential environmental impacts
- Mitigation options: Traditional approaches, optimization of works planning, and management during construction
- Handling contaminated sediments

MIKE ECO LAB

Modeling water, habitats, and behavior in a changing world

This free, one hour webinar will introduce you to the tools to model water, habitats, and behavior as well as a basic understanding of the main concepts and applications. The ecological management of water environments is increasingly following an ecosystem-based approach. This is the management of human activities based on the best available information on the aquatic ecosystem and its dynamics.

- Introduction to Hydrodynamic Modeling
- Introduction to Habitat, Agent Based, and Underwater Noise modeling
- Bringing it all together: Mobile Animal Ranging Assessment Model for Biological Studies (MARAMBS) with examples from recent projects

MIKE 21

Coastal dynamics: how to effectively model sediment transport

This free, 1.5 hour webinar will focus on the integrated modeling of sediment transport processes in coastal and estuarine environments using the sediment transport modules available in MIKE 21 and 3. Includes a description of available modules, the modular structure of calculation implemented in MIKE, useful considerations when selecting which model to adopt.

- Considerations, limitations and benefits
- Possible application areas
- Quick review of the theory behind the calculations
- How to work with the model, including presentation of user interface and available pre- and postprocessing facilities
- Application examples

2018 FEFLOW INTERNATIONAL USER CONFERENCE

The FEFLOW International User Conference will be held in Golden, CO Dec 3-6, 2018. The event will include a mixture of workshops on new software features and technologies, as well as practical case studies presented by FEFLOW users and DHI experts.



Every year, thousands of water professionals all over the world attend THE ACADEMY by DHI courses and events. The activities are available both as standard as well as tailored courses designed according to your specific requests and based upon your own data. Whether you are a manager or a technician you will be able to find a suitable course that will fulfil your needs.

Our courses are of various duration and an increasing number of them will be online during 2018.

MIKE Powered by DHI courses

Our MIKE 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

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

Trainers

Our trainers are experienced professionals, many of whom are recognized international experts in their areas. The use of highly professional trainers always guarantees the quality of your course.

Tailored courses

Should the public enrollment course of your interest not be on the list in our Course Schedule for 2018, please feel free to contact us. We can arrange for future courses at your office!

Our tailored courses are designed specifically according to your needs and given at the time and location of your choice (in-house at your company, at our office or elsewhere - or online). The content can be a near copy paste of an existing course - or a complete tailored training based upon your own data and designed according to your specific needs.

SIGN UP TO OUR DHI NORTH AMERICA EMAIL NEWSLETTER

Sign up to make sure you get information on:

- Latest course offerings
- Technical workshops and seminars
- DHI experts visiting your area
- MIKE technology news, tips, and tricks

www.worldwide.dhigroup.com/us

Dates, venue and location

Information on specific venues for the courses to be held in Lakewood, CO, Solana Beach, CA, Houston, TX, Fort Lauderdale, FL, and Trinidad & Tobago will be provided at least four weeks prior to the course date.

Computers

A number of courses require computers. All participants are asked to bring their own lap tops with the software installed.

Discounts

- 10 % if valid Service Maintenance Agreement (SMA)
- 33% for the 3rd and subsequent participants from same organization.

What is included?

Course fees include training licenses, material, training certificates, lunch and refreshments.

Registration

Deadline for registration is four weeks before commencement of course. A minimum of participants is required for courses to proceed. DHI reserves the right to reschedule courses up to one week prior to the commencement of a course.

You can register through our website <http://worldwide.dhigroup.com/us> or contact us at mike.us@dhigroup.com

Further information

Further information about additional software courses, thematic or tailored training please contact us at mike.us@dhigroup.com

If in doubt about content of training you are most welcome to contact our trainers to advise you on which training scheme to adopt to meet your preferences and needs.

DHI Water & Environment Inc.

336 Eagle Street North, Unit 1A2,
Cambridge, ON N3H 1C2,
Canada

Tel.: +1 519 650 4545

mike.ca@dhigroup.com

<http://worldwide.dhigroup.com/ca>

