



MIKE BY DHI COURSE DESCRIPTION

2D MODELING OF INTEGRATED COASTAL HYDRODYNAMICS, WAVES AND WATER QUALITY PROCESSES

Introduction to data preparation, model setup and result presentation using MIKE 21 flexible mesh modules

This three day, hands-on course will teach you the fundamentals for modeling 2D integrated coastal hydrodynamics, waves, and water quality processes using the MIKE 21 coastal modeling system.

The course provides a comprehensive set of training course notes, presentations and step-by-step tutorials that will give you an introduction on how to set up, run, troubleshoot and analyze an integrated coastal model using the MIKE 21 Flexible Mesh Hydrodynamics (FMHD) module, the Spectral Wave (SW) module and the ecological (ECO Lab) module.

COURSE TOPICS

- Selection of geographical coordinate system, bathymetry digitization (mesh)
- Data organization, import, editing and quality control
- Fundamentals of 2D flow modeling
- Setting up simple hydrodynamic models
- Managing boundary conditions
- Calibration and validation procedures
- Using the utility software of MIKE 21 Flow Models
- Analyses of model input and output
- Interpretation of results and visualization, including video animation
- Introduction to wave modeling
- Theoretical background for MIKE 21 SW
- Application areas of MIKE 21 SW
- Decision of spectral formulation
- MIKE 21 SW setup editor
- Mesh generation
- Coupling MIKE 21 SW with other MIKE by DHI engines
- Fundamentals of ecological modeling
- Introduction to ECO Lab and dialogue overview
- Introduction to existing ECO Lab templates
- Guidelines for ecological model development
- How to set up the ECO Lab model
- Hands-on exercises

DATE AND TIME

June 05 - 07, 2013.

Course starts at 09:00 and finishes at 17:00

FEES AND DISCOUNTS

Standard price: \$ 1,395.00
Discounts:

- 10% with valid Service Maintenance Agreement
- 33% for 3rd and subsequent participants from same company

THIS IS INCLUDED

- Training material
- Latest MIKE by DHI 30 day complimentary license
- Twice per day refreshments
- Training Certificate

LANGUAGE

Lectures and training material are in English

LOCATION AND VENUE

Halifax, NS
Venue TBD

REGISTRATION AND FURTHER INFORMATION

Registration deadline is 3 weeks before course start date. A minimum of 8 trainees is required for the course to proceed. DHI reserves the right to reschedule the training course up to 1 week prior to the course date scheduled.

Att.: Barbara White: bwh@dhigroup.com
www.dhigroup.com/theacademy
1-888-344-9233

TARGET GROUP AND PREREQUISITES

Professionals in hydraulic engineering and management working with inland flooding, lakes, coastal areas or marine environment.

Some experience with hydraulic modelling would be an advantage.

This course constitutes a basic platform for further marine courses and activities.

RELATED COURSES

MIKE BY DHI

- 'MIKE 21 Flow Model HD - 2D hydrodynamic modeling using 'classic' grid'
- 'MIKE 21 ST FM - Sand transport modeling using flexible mesh'
- 'MIKE 21 & MIKE 3 TR FM, MT FM, PT FM - Fine sediment modeling using flexible mesh'
- MIKE 21 BW - Wave disturbance modeling in ports'
- 'MIKE 3 Flow Model HD - 3D hydrodynamic modeling using 'classic' grid'
- 'MIKE 3 Flow Model HD FM - 3D hydrodynamic modeling using flexible mesh'
- 'MIKE 21/3 ECO Lab - 2D and 3D water quality and ecological modelling'
- 'MIKE 21C (Curvilinear) - Morphological modelling'

THEMATIC

- 'METOCEAN MODELLING FOR MARINE RENEWABLES - New trends in off-shore metocean modelling and analysis'
- 'PHYSICAL MODELLING OF MARINE STRUCTURES - When, why and how!'
- 'OIL SPILL ANALYSIS: MODELLING APPROACH - How to model the fate and transport of oil in water environments'

THE ACADEMY BY DHI

The Academy offers a palette of courses and capacity building packages designed to fit your needs and challenges. Our training courses are offered as standard and/or as tailored training.

MIKE by DHI courses focus on practical skills, hands-on exercises and on teaching you how to get the most out of your software.

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

MIKE Customised courses enable you to understand the power of the MIKE Customised tools for building decision support systems.

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

Contact: Barbara White Course Coordinator,
bwh@dhigroup.com
 More information: www.dhigroup.com/theacademy

TYPICAL APPLICATIONS OF THE SOFTWARE THAT YOU ARE TRAINED IN:

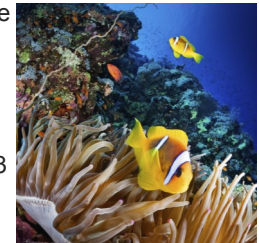
Typical application areas of MIKE 21 Flow Model HD FM include assessment of hydrographical conditions in nonstratified waters, coastal flooding and storm surge, inland flooding and overland flow, forecast and warning systems.



MIKE 21 SW is used for the assessment of wave climates in offshore and coastal areas. MIKE 21 SW is particularly applicable for simultaneous wave prediction and analysis on regional scale and local scale. MIKE 21 SW also provides the basis for calculating wave-induced currents that occur in the surf zone.



Ecological modeling is used to describe and simulate various water quality processes and phenomena of ecosystems. ECO Lab is a customizable ecological modeling tool that is integrated with MIKE 21, MIKE 3 and MIKE 11. It provides a comprehensive selection of standard ecological and water quality process templates, and it allows easy access to the equations for modifying process descriptions of existing template or developing completely new ecological modeling templates. MIKE 21 ECO Lab is used for 2D simulations of shallow lakes or coastal areas with insignificant stratification.



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