



## MIKE 21 FLOW MODEL HD FM

### 2D hydrodynamic modelling using flexible mesh

This two-day, hands-on course will teach you the fundamentals of 2D hydrodynamic modelling (HD) and give you an introduction on how to set up a hydrodynamic model using the MIKE 21 Flow Model HD FM model using flexible mesh bathymetry.

The hydrodynamic module of MIKE 21 Flow Model HD FM provides the basis for computations of processes performed in many other modules such as sediment and mud transport, transport of heat and suspended matter, oil spill, agent based modelling and ecology but can also be used as a stand-alone application. The module simulates unsteady flow taking into account bathymetry, sources and external forcing.

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.

#### COURSE TOPICS

- Selection of geographical coordinate system, bathymetry digitisation (mesh)
- Data organisation, import, editing and quality control
- Fundamentals of 2D flow modelling
- Setting up simple hydrodynamic models
- Managing boundary conditions
- Calibration and validation procedures
- Using the utility software of MIKE 21/3 Flow Models
- Analyses of model input and output
- Interpretation of results and visualisation, including video animation
- Hands-on exercises

#### 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.

#### DATE AND TIME

10-11 July 2019. The course days are from 9 am to 5 pm.

#### LOCATION AND VENUE

Manila (address to be announced).

#### FEES AND DISCOUNTS

Standard price: USD 400 (excl. taxes or levies).

#### Discounts:

- 10% with valid Service Maintenance Agreement on MIKE Powered by DHI product; or
- 20% for students; or
- 25% for 3rd and subsequent participants from same organisation

#### THIS IS INCLUDED

- Training material
- Training Certificate

#### LANGUAGE

Lectures and training material are in English

#### REGISTRATION AND CONTACT

Deadline for registration is 3 weeks before course start. A minimum of trainees is required for the course to proceed. DHI reserves the right to reschedule the training course up to 3 weeks prior to the course date scheduled.

#### Client Success

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## RELATED COURSES

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



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## INSTRUCTOR

### RIYANDI

*Riyandi has 5 years of experience in hydraulic numerical modelling including hydrodynamics, wave modelling, cohesive and non-cohesive sediment transport, dredging and spill modelling and related Environmental Impact Assessment (EIA), MetOcean, port and other marine infrastructure project.*



*He has more than 7 years of experience as a professional working in international environment company*

## 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](http://www.theacademybydhi.com)

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