This two-day, hands-on course will teach you the fundamentals of 2D and 3D hydrodynamic modelling (HD) and give you an introduction on how to set up a hydrodynamic model using MIKE 21/3 Flow Model HD FM models using flexible mesh bathymetry.

The hydrodynamic module of MIKE 21/3 Flow Models 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 density variations, bathymetry, sources and external forcing.

Typical application areas of MIKE 21/3 Flow Model HD FM include assessment of hydrographical conditions in stratified and nonstratified waters, coastal flooding and storm surge, oceanographic circulation studies and lake and reservoir hydrodynamics.

COURSE TOPICS
- Selection of geographical coordinate system, bathymetry digitisation and vertical resolution (mesh)
- Data organisation, import, editing and quality control
- Fundamentals of 2D and 3D 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.

Experience with hydraulic modelling and the flexible mesh modelling complex is highly recommended either through experience or through following the course 'MIKE 21 Flow Model HD FM - 2D hydrodynamic modelling using flexible mesh' prior to the course.

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-to-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.