



DYNAMIC ANALYSIS OF MOORED VESSELS

Using MIKE 21 Mooring Analysis (MA)

This two-day, hands-on course teaches you the fundamentals of mooring analysis and gives you an introduction on how to set up a moored ship in a port which is subject to environmental forcings such as waves, currents and wind. The course will also help you assessing vessel motions, fender and line forces, which is of utmost importance when planning ports.

MIKE 21 Mooring Analysis (MA) is the latest member of the MIKE 21 modelling suite, extending the applicability of MIKE towards port operations. It helps designing ports and increasing its efficiency.

The course is based on two main examples:

- I. A simple (generic) example relying on wave forcing used on a vessel in a user defined location, which on a basic level showcases the combined usage of the Frequency Response Calculator and the MIKE 21 MA in order to perform a simple mooring analysis.
- II. A more advanced example representative of a real-life mooring study, which shows the combined usage of the Frequency Response Calculator and the MIKE 21 MA, when a vessel is positioned in a geographically based domain.

COURSE TOPICS

- 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)
- Using MIKE 21 MA in time domain
- Processing and interpretation of results
- Visualization of vessel movements in 3D
- Hands-on exercises

TARGET GROUP AND PREREQUISITES

Professionals in port engineering. It is recommended that the participants have a basic knowledge of wave hydrodynamics and mooring procedures. Knowledge about wave modelling either through experience or through following one of the courses 'MIKE 21 Flow Model HD - 2D hydrodynamic modelling using 'classic' grid' or 'MIKE 21 BW - Wave disturbance modelling in ports' prior to the course would be beneficial.

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.

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