



## OIL SPILL ANALYSIS: MODELLING APPROACH

How to model the fate and transport of oil in water environments

The purpose of this two-day, thematic hands-on course is to give professionals working with environmental impact assessment and contingency planning an introduction to oil spill modelling and analysis. The course will cover the technical aspects of the use of models and how modelling tools can help professionals make decisions based on the results provided by the models.

Oil spills pose serious threats to water environments and place massive pressure on the entities that are responsible for the emergency response and clean-up operations, such as oil companies and national authorities.

Oil spill modelling is important for emergency response planning and environmental impact assessment. Oil spill models predict the spreading and weathering processes acting on the spilled oil. Results can be evaluated with respect to the impacts on flora, fauna and selected species or habitats.

### COURSE TOPICS

- Basic concepts of oil spills
- Advantages in modelling oil spill
- Main properties of oils
- Weathering processes
- Hydrodynamics, effects of currents, winds, waves and water properties
- Numerical modelling of oil dispersion
- What type of model to select 2D or 3D? and why?
- How to set-up an oil spill model using MIKE 21/3 OS FM
- Real world case studies
- Hands-on exercises

### TARGET GROUP AND PREREQUISITES

Professionals from consultancy companies, oil and gas companies, port authorities, emergency response companies and governmental environmental agencies interested in planning emergency response to accidental oil spills and assessing its impacts on water environments.

Experience with hydrodynamic modelling (MIKE 21/3) is essential. Pollutant/dispersion modelling (eg using MIKE ECO Lab) is an advantage but not a condition.

### 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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