ABM LAB
Agent based modelling

In this one-day, hands-on course you will receive an introduction to AMB ('Agent Based Modelling') Lab and how to set up simple agent based models in the MIKE FM modelling complex.

The ABM Lab module allows you to formulate agent based models within the MIKE FM series of hydrodynamic environments of the MIKE by DHI framework. ABM Lab is a flexible numerical laboratory where you can define agents, their behaviour and their states. The Lagrangian ABM Lab can work with hydrodynamics alone or it can be combined with the Eulerian MIKE ECO Lab in order to make the agents react to water quality parameters.

ABM Lab allows you to address questions that are beyond the scope of traditional water quality models. Therefore, agent based modelling has received much attention in recent years.

COURSE TOPICS

- Fundamentals of ecological modelling
- Introduction to MIKE ECO Lab/ABM Lab and dialogue overview (working with the editor; integration to HD engines)
- Guidelines for ecological model development
- How to set up MIKE ECO Lab/ABM Lab
- Calibration and validation procedures
- Trouble-shooting advice
- Hands-on exercises
  - to construct your own basic ABM model
  - to set up and run MIKE 21/3 MIKE ECO Lab simulations (FM series)

TARGET GROUP AND PREREQUISITES

Professionals in environmental engineering and management working with shallow inland lakes or coastal areas. You should have a background in applied water quality aspects and/or biology and preferably with experience in MIKE ECO Lab either through experience or through following the course 'MIKE 21/3 MIKE ECO Lab - 2D and 3D water quality and ecological modelling' prior to the course.

It is also an advantage if you have knowledge of the MIKE 21 and MIKE 3 FM modelling complex.

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 AND CONTACT US

courses@dhigroup.com
www.theacademybydhi.com

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The expert in **WATER ENVIRONMENTS**