MIKE FLOOD

Integrated pipes, channels and surface modelling

This three-day, hands-on course aims to teach you the integration of the 1D urban drainage model (MU CS), 1D river model (MIKE HYDRO River) and the 2D overland model (MIKE 21) into one comprehensive dynamically coupled model. The emphasis is on establishing a 2D overland flow model followed by coupling of the 1D and 2D components to simulate the fully integrated flow dynamics between sewage/storm water systems, open channels and surface areas.

Flooding often occurs as a result of high rainfall intensity in the catchment area, insufficient storm drainage capacity, river overflows, dam/dike breach, storm surge or as a combination of these phenomena. The risks of flooding are amplified by the expected effects of climate change.

MIKE FLOOD is a comprehensive modelling package covering all major aspects of flood modelling and is a tool for understanding flooding, analysing scenarios and testing mitigation measures. MIKE FLOOD integrates flood plains, streets, rivers, and littoral and sewer/storm water systems into one package.

COURSE TOPICS

- Introduction to 2D overland flow modelling with MIKE 21
- Building urban bathymetries
- Preparing MIKE URBAN models for coupling
- Preparing MIKE HYDRO River models for coupling
- MIKE FLOOD graphical editor
- Coupling 1D and 2D models (3 ways)
- 1D-2D and 1D-1D linkage options; stability issues
- Tips and troubleshooting with model coupling
- Results viewing and presentation
- Hands-on exercises

TARGET GROUP AND PREREQUISITES

Professionals involved in flood management, flood risk assessment or other flood related studies. Participants must be acquainted with the basic functionalities of MIKE HYDRO River and MIKE URBAN COLLECTION SYSTEMS (MU CS) prior to the course either through experience or through participation in the MIKE HYDRO River course 'Introduction to river and channel modelling' and the MU CS course 'Introduction to the modelling of collection systems'.

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 tailored.

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

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