



MIKE 21 ST FM AND MIKE 21/3 MT FM

Sediment transport using sand (2D) and mud (2D and 3D) modelling

This one-day, hands-on course will teach you the fundamentals of sand transport modeling and mud transport modelling for both pure currents and a combined waves and current regime. You will learn how to set up a sand/mud transport model and simulate the sand/mud transport and morphological changes using a coupled setup with flow and wave models. We shall also discuss when to apply a 3D approach.

The ST module in MIKE 21 Flow Model HD FM calculates the sediment transport capacity, the initial rates of bed level changes and the morphological changes for noncohesive sediment (sand) due to currents or combined currents/waves. The MT module calculates the erosion, transport, settling and deposition of cohesive sediment. Mechanisms such as flocculation and resuspension are also accounted for.

Typical applications include the ability to predict sediment transport and resulting morphological changes together with suspended sediment concentration along coasts and in estuaries. This will support the investigation and optimisation of coastal and estuarine infrastructure projects.

COURSE TOPICS

- Fundamentals of sand and mud transport modelling
- Applications of MIKE 21 ST FM and MIKE 21/3 MT FM
- Specifying sediment/particle properties
- Generating sand transport tables
- Calculating sediment transport
- Factors for when to apply a 3D approach
- Hands-on exercises

TARGET GROUP AND PREREQUISITES

Professionals in hydraulic or engineering and management working with impact assessment in coastal, estuarine and coastal areas.

It is required that participants have a basic knowledge of the flexible mesh modelling complex either through experience or through following the course 'MIKE 21/3 HD Flow Model FM - Introduction to 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-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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