

## M-05      CFD introduction with case studies

**Objective:**            The concept and general principles of Computational Fluid Dynamics (CFD) will be introduced, and the use of CFD as a tool for hydrodynamic analysis will be demonstrated to the participants

**Contents:**            •      CFD analysis process  
                              •      Governing equations; discretization methods and solution algorithm; finite-volume formulation  
                              •      Boundary and initial conditions; free surface modelling

**Who should attend:** Engineers and technical specialists from the public and private sector with a need of an introduction to the subject

**Courseware:**        Selected slides and background documents as handouts and/or electronic files

**Certification:**     Attendance certificate (subject to 80 percent attendance)

**Duration:**          2 lessons (2 hours each)

**Schedule:**          (Pending, to be agreed)

**Costs:**              \$ 300 per participant (inclusive of GST)

*A discount of 20 percent applies to 3 or more participants from the same organization in the same course*

**Instructor:**        Hao Zhiyong, research fellow at NTU's Maritime Research Centre, educated as an engineer in fluid mechanics (BEng, PhD). Specialist in experimental fluid mechanics and Computational Fluid Dynamics (CFD), turbulence and turbulence control; vortex-induced vibrations; and hydrodynamic modelling

**Enquiries and registration:**      DHI Water & Environment, tel. 6777 6330, e-mail: [info@dhi-ntu.com.sg](mailto:info@dhi-ntu.com.sg)