



DIGITAL SOLUTIONS

ADVANCED BLADED TRAINING FOR FLOATING WIND TURBINES

Course code: BL-03
Duration: 5 days

Prerequisite:
Working knowledge of
Bladed software or similar
experience.

DESCRIPTION

The course offers an in-depth insight into floating wind turbine modelling and provides detailed guidance on implementing the more advanced features available within Bladed relating to the specific area of floating wind turbines.

You will learn about the forces acting on your turbine, from the power of the wind, down to the action of the waves on the floater. Then, you will see how your structure behaves under these conditions and the forces it must contend with to remain intact. The course outline, shown below, is a 5 day course covering a range of topics. If your training needs are not represented by the topics in this list, we are happy to devise a unique training programme to match your personal requirements.

LEARNING OBJECTIVES

The topics covered in this course are:

- Building the wind turbine model in Bladed
- Floating wind technology and Cost of Energy
- Modelling the sea state (includes workshop)
- Hydrodynamics in Bladed: Morison and BEM
- Mooring lines in Bladed
- Building the floating platform in Bladed
- Introduction to control systems
- VSPR Control design with Bladed
- Controller adaptations to floating wind
- Control system hardware testing
- Floating load calculations

TARGET GROUP

Engineers who are already working with Bladed software or have similar experience, and are wanting to learn more about floating wind turbines. This may include turbine OEMs, interested in mounting their system on a floater, or floating platform designers, requiring a coupled modelling tool to include aerodynamic loads in their calculations.