



windPRO

windPRO offshore course

Join our course to master offshore energy calculations. Our comprehensive course, spread over three sessions, is designed to equip you with the knowledge and skills needed to perform offshore wind energy assessments.

Structure of the course:

Each subject begins with theoretical and practical considerations, which are supported by a demonstration and followed up by a hands-on exercise, where the teacher is available for further guidance and help. There is room for discussions related to specific issues the participants face in their daily work.

Topics:

There are three sessions. The first covers general considerations, offshore measurements, modelling techniques, and the use of floating LiDARs. The second session focuses on mesoscale data in the offshore context and time-varying calculations. The last session covers losses including blockage and uncertainties.

Upon completion of this session, participants will be able to:

- Understand conceptual considerations behind offshore wind resource assessment
- Analyse, treat, and repair measured data with focus on data from floating LiDAR systems
- Long-term correct onsite measurements, understand the methodologies, and the plethora of reference data available including the EMD mesoscale datasets
- Derive horizontal gradients from mesoscale data
- Comprehend different approaches of resource modelling offshore and determine the best for each case
- Calculate the energy yield in the time-domain and understand when to use time-varying calculations. This includes time-varying wake calculations and adjustments of the power curve
- Perform layout optimisation for different objectives
- Understand and evaluate losses and uncertainties offshore - including wake, blockage, curtailment, and other operational losses.

Who should attend?

The course is recommended for experienced windPRO users who want to gain knowledge in offshore wind resource assessments. The course outline does not specify any prerequisites for the course, but it is expected that participants have a good understanding of windPRO and its basic functionalities.