



Training Outcomes

- Develop your understanding of wind energy use
- Understand the aerodynamics of wind turbines as well as control strategies
- Get first-hand market info
- Do the matchmaking with the German and international industry

Incl. guided tour to wind energy tradeshow, excursions and cultural events
www.husumwind.com



Transforming Energy

Optional: Hands-on wind turbine workshop.

The certified attendance costs 370 EUR for professionals, students 220/280 EUR, incl. tax, group tickets available!

In cooperation with:



Any questions?

Please contact the course coordinator for further information:

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www.srh-berlin.de/short-courses/

www.gsan.solar

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Berlin University of Applied Sciences

GSAN international Wind Industry Training GSAN-iWIT2024

20 – 27 September 2024 | Hybrid

3.5-day Training Programme Details

Session 1

Global status of wind energy - benefits of wind energy

Session 2

Introduction to wind energy - physics behind the generation of wind and its occurrence - historical development of wind turbines - types of small and large wind turbines

Session 3

Wind resources measurement and assessment - atmospheric conditions, complex terrains, wind farm effects - site assessment (site selection, measurement equipment, types of meteorological masts, etc.) - energy yield calculation

Session 4

Aerodynamics of wind - the acting forces - basic blade designs and their influence on the aerodynamic performance

Session 5

Working principles and efficiency of wind turbines - wind energy and wind power - overall turbine efficiency

Session 6

Mechanical components - rotor - drive train - support structure

Session 7

Electrical system and control concepts - grid-connected and off-grid wind power - types of control strategies

Session 8

Planning, building and commissioning - phases of wind energy project development - energy yield assessment - grid-connection of wind turbines - financing and economic calculation

Incl. hands-on exercises (demonstration of small wind turbine, handling of multimeters, use of excel sheets and simulation software to calculate energy yield), excursions, cultural programme, training hand-outs and insider tips, university certificate (4ECTS) and post-seminar guidance.

We are cooperating with partaking wind companies and have 1:1 matchmaking sessions and site-visits.

Become a Wind Energy Expert

Our **SRH**-accredited main trainer Mr. Abdulkarim Abdulrazek of University Oldenburg has **12 years of experience** in international project and construction management, wind energy consulting and engineering, acted **more than 6 years** in wind energy research and has conducted wind tunnel experiments and installations in several countries like Germany, North Korea, Lebanon, Saudi Arabia, Morocco, Mongolia and Indonesia.

Furthermore Mr. Karim is **specialized** in the design and optimization of testing facilities for small wind turbines following the **IEC 61400-2 standard**, constructed wind measurement systems on meteorological masts and knows how to run QM systems.

