

- Aerodynamics
- Waves and hydrodynamics
- Flexible structures
- Cables and mooring lines
- Turbulence and wakes
- Control and servos



HAWC2

Dynamic simulator for R&D and certification of turbines

HAWC2 is part of a framework that can be used to investigate the dynamic response of a wind turbine. With that, the design driving loads and stability limits can be estimated. At DTU Wind and Energy systems one of our core research activities focusses on the complex and dynamic hydro-servo-aero-elastic response of modern (floating) wind turbines, and what it takes to model such systems accurately.

Within our research projects we condense the relevant experience and knowledge into HAWC2 so it can be disseminated and used effectively. HAWC2 is made available on both commercial and academic terms (the latter free of charge). Our goal is to support our partners (be

it commercial or academic) to strengthen wind energy and accelerate the renewable energy transition.

Potential industrial applications:

- Document design loads for a wind turbine certification process
- R&D of complex and novel turbine and substructure concepts
- Prototype measurement and validation campaign
- Estimate lifetime fatigue loads within a wind farm
- Investigate impact of control strategies on loads and performance



For more information, please visit www.hawc2.dk