

Professor (with special responsibilities) in Aeroelasticity and Dynamics of Wind Turbines

DTU Wind Energy invites applications for a position as Professor (with special responsibilities) in aeroelasticity and dynamics of wind turbines.

Our focus at DTU Wind Energy is the development of wind energy for the benefit of society, which we do through research, development, and education within the following programme areas: Siting and Integration, Wind turbine technology, Structures and materials, and Offshore wind energy. The department is an internationally leading university department in wind energy and cooperates with industry and institutions worldwide. We believe that cooperation between scientist and scientific disciplines and a balanced portfolio of research and innovation, education, and research-based advice and services is the best way to create value for society.

The professor will join the section for Wind Turbine Loads and Control (LAC) at the DTU Risø Campus in Roskilde. LAC focuses on modelling and analysis of loads and dynamics, aeroelastic stability, and control of wind turbines, and implements its research in software tools and in courses to the benefit of the wind energy community in general.

DTU Wind Energy has the strategic aim through this professorship to strengthen research in structural dynamics and computational mechanics with emphasis on applications to wind turbine technology aeroelasticity.

Secondary areas of interest include aeroelasticity coupling with hydrodynamics, aeroelastic stability and control, and structural reliability.

Responsibilities and tasks

The position covers research and teaching in structural dynamics and computational mechanics with particular emphasis on wind turbine technology. This research area includes:

- Theoretical foundations in computational mechanics and structural dynamics
- Linear and nonlinear dynamics applied to wind turbine concepts for land-based and offshore machines
- Method development and modelling for aero-servo-hydro-elastic behaviour, aeroelastic stability, and structural reliability of wind turbines

The professor is furthermore expected to:

- Attract national and international funding for research in aeroelasticity and dynamics
- Publish and coordinate dissemination of research at a high international level
- Strengthen the collaboration within the department and with other departments at DTU
- Further develop the collaboration with national and international research institutes and industries
- Supervise MSc and PhD students as well as postdocs
- Develop and coordinate advanced university courses and in continued education programmes

The research field shares scientific methodologies with other departments at DTU. Thus, the professor should sustain and develop collaboration in research, education, and innovation with, e.g., the departments of mechanical engineering and applied mathematics and computer science.

The professor is expected to participate in teaching at the BSc, MSc, and PhD levels. For international candidates, DTU can provide Danish language courses enabling the candidates to teach in Danish within 2-3 years.

Qualifications

Candidates should have obtained well-documented international recognition within their research field, including a high level of original scientific production at international level, with the potential to

contribute to further development of the scientific field. Emphasis will be on the ability to combine a high research level and publication activity with promotion of external cooperation and exploitation of the research results.

Furthermore, the applicant should document ability and experience to initiate, manage, and perform theoretical, computational, and experimental research structural dynamics, and computational mechanics with application to wind turbine dynamics and aero-servo-hydro-elasticity including developing and maintaining international research and innovation network.

The applicant should have a solid track record of acquiring national and international external funding and management of national and international research projects.

Finally, the applicant should have documented supervision and teaching skills at all university levels and for continued education.

Assessment

In the assessment of the candidates, consideration will be given to:

- Documented experience and quality of teaching and curriculum development
- Research impact and experience, funding track record, and research vision
- Societal impact
- Documented innovation activities, including commercialization and collaboration with industry
- International impact and experience
- Leadership and collaboration
- Communication skills

We offer

DTU is a leading technical university globally recognized for the excellence of its research, education, innovation and scientific advice. We offer a rewarding and challenging job in an international environment. We strive for academic excellence in an environment characterized by collegial respect and academic freedom tempered by responsibility.

Salary and appointment terms

The appointment will be based on the collective agreement with the Danish Confederation of Professional Associations. The allowance will be agreed upon with the relevant union.

The position is available for a 5-year period and may be extended for up to 3 additional years. At the end of the period, the employee in question will transfer to a position as associate professor at the university. More information can be found here: [Career paths at DTU](#).

Further information

Further information may be obtained from Head of Section Katherine Dykes, +45 [2179 9259](tel:+4521799259), katdyk@dtu.dk or Head of Department, Peter Hauge Madsen, +45 4677 5001, npha@dtu.dk

You can read more about DTU Wind Energy at <http://www.vindenergi.dtu.dk/>

Application procedure

Please submit your online application no later than **XXX 2019 (local time)**.

Applications must be submitted as **one pdf file** containing all materials to be given consideration. To apply, please open the link 'Apply online,' fill in the online application form, and attach **all your materials in English in one pdf file**. The file must include:

- Application (cover letter) addressed to the President
- CV
- A vision for future research

- Teaching and research statement, with a focus on the 'Assessment' bullet points listed above
- Documentation of previous teaching and research, as related to the "Assessment" bullet points listed above
- List of publications indicating scientific highlights
- H-index, and ORCID (see e.g. <http://orcid.org/>)
- Diploma (MSc/PhD)

Applications and enclosures received after the deadline will not be considered.

All interested candidates irrespective of age, gender, disability, race, religion or ethnic background are encouraged to apply.