Professor in Rotor Aerodynamics for Wind Turbines

DTU Wind Energy invites applications for a position as professor in rotor aerodynamics, including blade and airfoil design for wind turbines.

DTU Wind Energy is a department with the overall mission of contributing to research, development, and education within the following programme areas: Siting and Integration, Wind turbine technology, Structures and materials, and Offshore wind energy. The focus is on the development of wind energy for the benefit of society. 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 Aerodynamic Design at the DTU Risø Campus. Through this professorship, DTU Wind Energy has a strategic aim to strengthen research and teaching as well as innovation in rotor aerodynamics for wind turbines with special emphasis on blade and airfoil design. The research area for the professor will be an important element in the cross-sectional research in the department with the aim to develop more cost-efficient large turbines with, with higher capacity factors and with better acoustic properties.

Responsibilities and tasks
The position covers research and innovation as well as education in the research field which includes:

- Rotor design
- Airfoil design
- Aerodynamic add-ons (vortex generators, Gurney flaps, etc.)
- Experimental aerodynamics both for full-scale wind turbines and in wind tunnels
- Rotor and airfoil performance in relation to blade surface degradation (leading edge roughness etc.)
- Innovative aerodynamic blade and profile concepts.

The professor is furthermore expected to

- Take a lead in the academic exploitation and testing at the national La Cour wind tunnel
- Further develop the collaboration with national and international research institutes and industries through collaborative projects
- Attract national and international funding for research in rotor aerodynamics
- Publish and coordinate dissemination of research at a high international level.

The research field shares scientific methodologies with other groups in the department as well as with other departments at DTU. Thus, the Professor should sustain and develop collaboration with other groups at DTU in research, education, and innovation.

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

Qualifications
Candidates should have a well-documented international recognition within wind turbine aerodynamics, 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 in interaction with industry to benefit society.

Furthermore, the applicant should document ability and experience to initiate, manage, and perform theoretical, computational, and experimental research within aerodynamics of rotors and airfoils 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 research projects.

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

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.

For the specific position, consideration will also be given to:

- Scientific production at international level, research vision, and potential and ability to lead and develop a research team
- The candidate's qualifications and experience in aerodynamic rotor and airfoil design as well as experimental validation from wind tunnel and full-scale tests
- Proven success in managing research teams and other groups of employees
- Experience with project management
- Candidates with initiative, a motivating energy and a vision for the future research
- The ability to work in an environment with many nationalities and professional areas.

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 terms of employment
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.

Further information
Further information may be obtained from Head of Section Flemming Rasmussen, tel.: +45 4525 5048, flra@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 out 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.