

## Professor (with special responsibilities) in Power System Operation with Renewable Energy

DTU Electrical Engineering at Technical University of Denmark invites applications for a position as Professor (with special responsibilities) in power system operation with renewable energy.

The professor will be attached to our Center for Electric Power and Energy (CEE) with approximately 100 people focusing on technologies and solutions for a secure, cost-effective and sustainable energy system based on renewable energy sources.

### Responsibilities and tasks

The professor will have special responsibilities for building up an internationally recognized research activity on renewable-based power systems as well as developing the collaboration internally and with external academic and industrial partners.

The research focus of the professor must be within the area of operation of renewable-based power systems and their modelling and control. The research is expected to contribute to the overarching research themes of CEE: digital energy solutions, interconnected energy system and optimized electric energy technologies.

The research can include—but is not limited to—aspects of large-scale wind power integration and optimal operation of power systems with renewables, e.g. congestion management, voltage control, etc. The research is expected to take benefit of recent advancements within related areas, e.g., electricity markets, integrated energy systems, electric vehicles etc. through collaboration with colleagues at the centre, the department and other departments.

The tasks include research, innovation, and teaching as well as leadership within these. Entrepreneurship and project management are integrated aspects of the position.

The professor will be member of the electric power system research group of the centre, and have access to our PowerLabDK world-class experimental platform, which includes among others a control centre lab and computational facilities ([www.powerlab.dk](http://www.powerlab.dk)).

The professor must contribute to the development of the activities within the centre and the department. This includes the strategic long-term planning as well as the daily collaboration within research, education and innovation.

Furthermore, the professor must contribute to the further development of a broad industrial collaboration of the Center for Electric Power and Energy. The professor is expected to develop the collaboration through research activities, PhD projects, and student activities.

Finally, the professor must benefit from and contribute to DTU's stronghold position within energy research, including collaboration within the department as well as with other departments.

The professor is expected to participate in teaching at the BSc, MSc, and PhD levels.

A position as Professor (with special responsibilities) is held for a limited time period and involves all the usual duties associated with a full professorship, as well as fixed-term specific duties which will vary according to the research programme.

### Qualifications

The qualification requirements match those which apply to ordinary professorships, although emphasis is on the applicant's potential to develop an internationally recognized research activity and develop successful academic/industrial collaboration.

The professor must have well-documented research competences related to the research area of power system operation as described above. It is expected that the professor has strong competences within electric power engineering with a main focus on power system operation, renewable energy integration, power system modelling, and/or similar relevant areas.

The preferred candidate is expected to display entrepreneurship and to have strong project management skills in order to attract, initiate and run activities with external partners as well as colleagues at DTU.

We emphasize:

- A high level of original scientific production at international level, with the capacity to contribute to further development of the subject area in question
- Documented strong experience in at least one of the following fields:
  - Research management, including handling management assignments in national or international projects, research programmes, congresses etc.
  - Teaching experience at various levels— including PhD level – as well as the potential to become a successful teacher.
  - Innovation, including the establishment of patent areas, the application of research results in commercial contexts etc. obtained, e.g., through industrial experience.

### **Assessment**

In the assessment of the candidate, consideration will be given to

- the candidate's qualification for handling the special, function-related assignment(s) that are associated with the position
- scientific production at international level, research potential, and the ability to lead and develop a research team
- the ability to teach
- the ability to promote and utilize research results
- experience with innovation activities
- an all-round experience basis, including international experience
- the ability to contribute to the development of internal and external cooperation
- the ability to attract funding to the research area
- visions within the research area

For the position, the special function-related responsibilities, which should be met, covers the ability

- to build an internationally recognized research activity
- to develop a broad collaboration with fellow scholars and industrial partners— externally as well as internally at the centre
- to initiate and manage collaboration projects with external partners

### **Salary and appointment terms**

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

The position is available for a 5-year period and may be extended for up to 3 years more. At the end of the period, the employee in question transfers to a position as associate professor at the University.

### **Further information**

Further information may be obtained from Head of Department Kristian Stubkjær, tel: +45 4525 3654 or Head of Center Jacob Østergaard, tel.: +45 4525 3501.

You can read more about Center for Electric Power and Energy on [www.cee.elektro.dtu.dk](http://www.cee.elektro.dtu.dk) and Department of Electrical Engineering on [www.elektro.dtu.dk](http://www.elektro.dtu.dk).

### **Application procedure**

Please submit your online application no later than **xxx 2017**. Apply online at [www.career.dtu.dk](http://www.career.dtu.dk).

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
- A plan for future research
- CV
- Documentation for teaching experience (e.g. in the form of a teaching portfolio)
- List of publications indicating scientific highlights
- H-index, and ORCID (see e.g. <http://orcid.org/>)
- Diploma (MSc/PhD)

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