# **Professor in Energy Analytics and Markets**

DTU Electrical Engineering at the Technical University of Denmark invites applications for a position as Professor in Energy Analytics and Markets.

The professor will be attached to our Center for Electric Power and Energy. The professor will lead a research group in Energy Analytics and Markets.

## Responsibilities and tasks

The professorship is a research management position through which DTU wishes to reinforce and develop its activities in the field of Energy Analytics and Markets. The professor must take the lead in this area, where the tasks include research, teaching and innovation.

The professor is expected to focus on development of knowledge, theory, methods, technologies and solutions to enable an integrated, market-based and flexible energy system based on digital solutions and renewable energy in a cost-effective manner. The research must be related to electricity market design and operation, as well as renewable energy integration, by utilizing for instance stochastic process modelling, forecasting, optimization, and decision-making under uncertainty. The research is expected to contribute to the overarching research themes of the centre: digital energy solutions, interconnected energy system, and optimized electric energy technology.

The professor will have responsibility to develop internationally recognized research, innovation and education within the area of energy analytics and markets. Emphasis will also be placed on developing the collaboration with academic colleagues and industrial partners, both nationally and internationally. Entrepreneurship will be an integrated part of the position.

The professor will head our Energy Analytics and Markets research group in the Center for Electric Power and Energy, be part of the centre's leader group, as well as contribute to the development of the activities within the centre and the department in general. The responsibilities include strategic long-term planning and the daily collaboration within research, education and innovation.

The professor is expected to benefit from and contribute to DTU's stronghold position within energy research, innovation and education, including collaboration within the department as well as with other departments.

The successful candidate is expected to take a lead position in teaching at the BSc, MSc, and PhD levels.

#### **Qualifications**

Professors are expected to make a special effort in regards to research, innovation and research management, and, generally speaking, they are requested an effort in continuation of the qualification requirements for the position which are:

- A high level of original scientific production at international level, which has contributed to the further development of the subject.
- Documented and successful teaching experience at different levels within the University's study programmes, including and, in particular, at PhD level.
- Documented experience in at least one of the following two fields:
  - Research management, including handling management tasks in national or international projects, research programmes, congresses, etc.
  - Innovation, including building up patent areas, applying research results in a commercial context, etc.

The professor is expected to have strong competences in energy analytics and markets, e.g. optimization, forecasting, game theory, data-driven methods, and market theory. The preferred candidate is expected to be able to bridge the gap between novel mathematical concepts and power engineering.

Furthermore, the preferred candidate displays entrepreneurship and has strong management skills.

#### **Assessment**

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

- the ability to teach
- scientific production at international level, research potential and ability to lead and develop a research team
- 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
- track record in attracting funding to the research area
- visions within the research area

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

- the ability to build up an internationally recognized research activity
- the ability to develop strong collaborations with fellow scholars and industrial partners
- the ability to integrate entrepreneurship in research, innovation and education activities
- the ability to initiate and manage collaboration projects with external partners
- the ability to lead a successful research group

## Salary and terms of employment

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

### **Further information**

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

You can read more about Center for Electric Power and Energy on <a href="www.cee.elektro.dtu.dk">www.cee.elektro.dtu.dk</a> and Department of Electrical Engineering on <a href="www.elektro.dtu.dk">www.elektro.dtu.dk</a>.

#### **Application procedure:**

Please submit your online application no later than **XXX 2017**. Apply online at 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
- C\
- 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. <a href="http://orcid.org/">http://orcid.org/</a>)
  Diploma (MSc/PhD)

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