

## **Professor (with special responsibilities) in Energy Systems Modelling**

Department of Management Engineering at Technical University of Denmark invites applications for a position as professor (with special responsibilities) in Energy Systems Modelling.

DTU Management Engineering is a department with the overall mission of contributing to research, development, and education within the following scientific areas: Systems Analysis, Management Science, Production and Service Management, Technology and Innovation Management, Transport Modelling, and Quantitative Sustainability Assessment.

The professor will be affiliated to the Systems Analysis Division, the Energy Systems Group.

### **Responsibilities and tasks**

The new professor is expected to become the scientific leader and driving force in the group for further development of energy systems modelling and analysis encompassing smart energy systems with cross-cutting sectoral integration (power, heat, gas and transport), as well as integration of renewable energy sources and flexibility options in energy systems.

The position includes leading ongoing research projects and developing new research fields and alliances, strengthening the research team, developing research applications and further accelerating the overall academic publication output. The new professor is expected to manage and take a lead position in the division's contributions to research-based teaching including development and teaching of courses within energy system modelling, as well as associated examination commitments at the BSc, MSc and PhD levels. Supervising and supporting PhDs, BSc/MSc projects and early career team members will also be a central task.

The new professor is expected to establish relations to other research groups at DTU and at the department working with optimization and mathematical modelling, and with other departments at DTU working in the field of energy analyses. Furthermore, the new professor is expected to take a leading role in maintaining and further strengthening DTU's international and Danish networks and project partnerships with universities and other centres of excellence around the world.

### **Qualifications**

The new professor should have documented experiences from research and teaching in energy systems modelling. Candidates are expected to be able to demonstrate notable achievements within research in several of the following areas:

- Energy system optimization models and tools development
- Modelling integration of renewable energy into national energy systems - both variable and biomass based
- Modelling integration of energy sectors including the electricity, district heating, gas and transport sectors
- Analysis of national and international decarbonisation scenarios

Furthermore, the candidates must have the following qualifications

- A high level of original scientific production at international level that has contributed to further development of the subject area in question. In particular, a strong track record of scholarly research on energy systems, scenario analyses, and integration of renewable sources is expected.
- A significant contribution to teaching in several of the following areas: Successful completion of teaching, establishment of new courses, renewal of teaching activities,

preparation of teaching materials, supplementary pedagogical training, as well as publications in international teaching journals.

- Experience in designing and preparing successful applications for public or private funding of major research projects.
- Documented experience in research management, including handling management assignments in national or international projects, research programmes, conferences etc.
- Experience in supervision and guidance of PhDs
- Innovative skills, the ability to generate new ideas
- The ability to communicate at all levels such as the provision of scientific advice to industry and/or public sector authorities as well as to the general public

### **Assessment**

In the assessment of the candidate consideration will be given to

- 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

Consideration will also be given to:

- the ability to facilitate active learning

### **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 an 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 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. More information can be found here: [Career paths at DTU](#).

### **Further information**

Further information may be obtained from Head of Department Søren Salomo, tel.: +45 4525 4409, [sors@dtu.dk](mailto:sors@dtu.dk) or Professor Poul Erik Morthorst, Head of the Systems Analysis Division, +45 46775106, [pemo@dtu.dk](mailto:pemo@dtu.dk).

You can read more about DTU Management Engineering on [www.man.dtu.dk](http://www.man.dtu.dk).

### **Application procedure**

Please submit your online application no later than **XX 2017 (local time)**. 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
- CV
- A vision for future research
- Views regarding teaching and research based on the "Assessment" bullets
- Documentation of previous teaching and research based on the 'Assessment' bullets
- 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.