Professor in Autonomous Computational Discovery of Sustainable Energy Materials

Department of Energy Conversion and Storage (DTU Energy) at DTU is seeking an exceptional professor in the field of autonomous computational design of sustainable energy materials.

DTU Energy has an outstanding track record in the discovery, design, and development of new and improved materials and devices for sustainable energy conversion and storage, more specifically batteries, electrolysis and Power-to-X, fuel cells, thermal energy storage, heat pumps, solar cells, and energy harvesting and storage for the internet-of-things. We are about 200 persons in the department, located at DTU Lyngby Campus.

The department is inviting exceptional candidates to apply for a position as full professor with the primary scientific task to further the development of the department's activities in accelerated computational design and discovery of next-generation organic/inorganic energy materials for the green transition.

Responsibilities and tasks
The new professor is expected to lead the development and application of novel computational methods to autonomously bridge atomic-scale materials simulations with simulations at longer time and length scale, e.g., using machine learning and related techniques. Equally important is the development of automated computational workflows capable of integrating and utilizing data from other sources, e.g., existing databases and high-throughput or high-fidelity experiments, and ultimately to orchestrate the synthesis of new electrochemical energy materials and interfaces in a closed-loop infrastructure for materials discovery.

We seek brilliant candidates to develop a vigorous, independent research area and with interests to develop transformative methodologies, materials, and technologies for use in society, which lead to sustainable solutions that can enable the green transition of the world. You will make a significant contribution to DTU Energy's vision of demonstrating world-leading cross-disciplinary research through innovative development of sustainable materials solutions for the green transition. The successful candidate must take advantage of the collaboration with colleagues, within the department, across DTU, and outside DTU and Denmark.

An important task will be to attract external funding from public and private sources to be able to conduct the research at the highest international level. Dissemination of the research—both to scientific peers and to decision makers in the public domain—is an important responsibility.

You will be teaching students at all levels (BSc, MSc, and PhD), and be an inspiration and a role model for our young scientists. Your contributions to our research-based education and innovation will assist DTU in educating the best engineers.

Qualifications
As a candidate, you must have demonstrated top-level and original scientific research within the development and application of computational methods for atomic-scale materials design, discovery, and characterization within one or more of the Department's research areas, preferably within battery materials and/or electrocatalysis.

The successful candidate must have a PhD in physics, chemistry, chemical engineering, materials or computer science, or other related areas.

Successful candidates must document:

- Outstanding, original scientific output
- Successful teaching and dissemination experience
- A strong background in, and an innovative approach to, computational materials discovery
- A track record of academic cross-disciplinary collaboration

You must have demonstrated the ability to win and manage large-scale research projects, and have experience and a good reputation as a supervisor of students, PhDs, and postdocs.
You must appreciate teaching and have documented successful teaching experiences. You must be willing and able to teach in Danish within the next three years.

Assessment
In the assessment consideration and emphasis 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 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, Professor Søren Linderoth, mail: sqli@dtu.dk, +45 46775801

You can read more about DTU Energy on www.energy.dtu.dk

Application procedure
Please submit your online application no later than **1 November 2020 (23:59 Danish 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 (a 2-3 page vision of 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.