

## **Professor Lifecycle of Buildings in the Arctic Region**

DTU Civil Engineering at Technical University of Denmark is a department with the overall mission of contributing to research, development, innovation and education within the following scientific areas: structural engineering, construction materials, building design, building energy, indoor environment, geotechnics and geology. The professor will be attached to the section of Building Design — one of the five sections comprising the department. This section presently employs 48 people including 10 PhD students.

The position will include travel activities and will preferably be based at the Sisimiut Campus in Greenland; alternatively in Lyngby, Denmark.

### **Responsibilities and tasks**

The position involves teaching, research, publication and scientific dissemination at high level, as well as external partnerships – all within the lifecycle of buildings in the Arctic region.

Based on a sustainable and holistic building design approach, the candidate will contribute to education and research within one or more of the following areas all related to an Arctic context:

- Multi-dimensional design of buildings
- Thermal and moist conditions in the building envelope
- Structural engineering in an extreme environment
- Degradation of construction materials
- Building Energy; e.g. energy systems and energy savings
- Arctic outdoor and indoor climate conditions
- Site operation and construction
- Maintenance and retrofitting of buildings

Other duties:

- Educational and scientific guidance and supervision of assistant professors and researchers
- Academic assessment work
- Research-based innovation
- Scientific advice

The candidate is expected to operate in an interdisciplinary research team as well as actively collaborate and coordinate with other research groups. The candidate must be able to take academic leadership and is expected to facilitate collaboration on cross-disciplinary projects with academics and industry. Furthermore, the candidate is expected to seek and obtain external funding.

The teaching tasks will be within civil engineering focusing on buildings in extreme and Arctic climate. The teaching includes lectures and practical exercises at both bachelor and master level. In the practical exercises, we take advantage of the placement of our campus in Sisimiut. Also, project supervision of final project students at both bachelor and master level must be expected. In addition, supervision of students at internships in Greenlandic companies is a part of the position.

The successful candidate will collaborate with other research groups at DTU Byg as well as at other DTU departments on subjects relevant to buildings in the Arctic; e.g. energy and environment. Collaboration with other universities in the Arctic as well as partners in the construction Industry is of utmost importance and the candidate regards such initiatives as a matter of course.

The successful candidate is expected to take a lead position in teaching at the BSc, MSc, and PhD levels. For international candidates, DTU offers Danish language courses, with the purpose of being able to teach in Danish within the first two-three years.

### **Qualifications**

The qualified candidate should have an internationally recognized academic and professional profile. More specifically the following qualifications should be met:

- A high degree of original scientific production at international level that has contributed to the further development of the engineering aspects of sustainable design of buildings and facilities in the Arctic region
- Documented and successful teaching experience at different levels within the courses offered to MEng, BSc and MSc.
- Documented experience in research management, including the performance of management tasks linked to national or international projects, research programmes, conferences, etc.
- Documented experience in attracting external funding
- Documented experience in coordination of a research team, incl. scientists and technical staff

### Assessment

In the assessment of the candidates, 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

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

- scientific production at international level related to an Arctic setting
- visions within the research area
- track record for external funding of research
- ability to lead and develop a research team
- the ability to teach and experience with teaching the Arctic setting
- the ability to disseminate and promote research results
- an all-round experience basis, including international experience
- the ability to contribute to the development of internal and external cooperation
- experience with innovation activities including commercialization and collaboration with industry
- knowledge about Greenland and the Arctic physical environment

### 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 terms of employment

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.

### Further information

Further information may be obtained from Head of Department Niels-Jørgen Aagaard, +45 4525 1877.

You can read more about DTU Civil Engineering at [www.byg.dtu.dk](http://www.byg.dtu.dk)

### Application procedure

Please submit your online application no later than **XXX 2018 (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 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.