

## **Professor in Microwave Remote Sensing Systems**

DTU Space at Technical University of Denmark invites applications for a position as Professor in Microwave Remote Sensing Systems (i.e. radiometer systems and/or synthetic aperture radar systems).

DTU Space is the leading institution of public space activities in Denmark. The mission of the Institute is to conduct research, development, scientific advice, education and innovation at the highest international level within the following areas: Space Technology & Instrumentation, Earth Observation & Geoscience and Space- & Astrophysics. DTU Space is engaged in several engineering educations based on high international level research at the institute. Particular emphasis is on the BSc and MSc programmes in Earth and Space Physics and Engineering.

The professor will be attached to the division of Microwaves and Remote Sensing, which is one of the seven divisions comprising DTU Space.

The Microwaves and Remote Sensing division of the National Space Institute (DTU Space) covers development and utilization of space and airborne microwave radiometers and radars for demonstration of new concepts and for acquisition of data through campaigns, as well as development of advanced methods and new techniques for processing and utilizing data from such sensors.

In order to develop our research and teaching activities, we seek a highly qualified person to join the faculty at professor level.

### **Responsibilities and tasks**

The professor should have a microwave remote sensor system background in particular concerning the end-to-end design of microwave systems including antennas, passive and active microwave components, broadband RF systems, and digital processing and data handling systems.

The primary tasks are:

- Research within microwave remote sensing systems, i.e. academic leadership, including identification and cultivation of new fields of research
- Research within microwave system analysis, design, and implementation of aircraft and/or satellite-borne radiometer and/or radar systems such as imaging radiometer systems including synthetic aperture radiometers, and imaging radar systems such as synthetic aperture radar, and polarimetric and interferometric systems
- Research-based innovation
- Research-based teaching, including supervision of PhD, MSc, and BSc projects as well as training of postdoctoral researchers, and teaching in regular courses at BSc and MSc levels in microwave remote sensing techniques and applications
- Extending cooperation with external partners by actively pursuing national and international opportunities for joint projects and their funding
- Other duties:
  - Pedagogical guidance and supervision of assistant professors
  - Academic assessment work
  - Knowledge exchange with society at large
  - Collaboration with other research groups at DTU and at the institute

The successful candidate is expected to be involved in teaching activities related to BSc and MSc students. Candidates who do not speak Danish should be willing to learn Danish within the first two-three years in order to be able to teach in Danish.

### **Qualifications**

Professors are expected to make a special effort regarding research/innovation, teaching, and research management, and important qualification for the post are as follows:

- A high level of original scientific production at international level, with the potential to contribute to the further development of microwave remote sensing systems.

- Documented teaching experience at various university levels as well as the potential to become a successful teacher.
- Successful research management experience as well as capability of initiating and developing collaborations with external partners.

All applicants must document a vision for their contribution to future research and teaching in microwave remote sensing systems. The vision for teaching must cover both radiometer and radar systems, and the vision for research may cover radiometer systems, radar systems, or both. Applicants must be ready to actively and constructively collaborate with colleagues in our group, with other DTU groups and departments, and with external partners.

### **Assessment**

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

- Experience and quality of teaching
- 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 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 Director of DTU Space, Kristian Pedersen, tel.: +45 4525 9501.

You can read more about DTU Space at [www.space.dtu.dk](http://www.space.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.