

Professor in Photonics Sensor Technology

DTU Fotonik, the Department of Photonics Engineering at Technical University of Denmark invites applications for a position as professor in Photonics Sensor Technology. The department's activities are divided into 4 sections:

- Nanophotonics
- Light sources and Industrial Sensors
- Nonlinear Optics and Biophotonics
- Communication technology

The professor will be affiliated with the Light sources and Industrial Sensors section and will focus on research and innovation leading towards novel photonics concepts for imaging, detection and sensing, targeting applications within biophotonics, environmental sensing and industry.

Combining new light sources, sensor principles, nonlinear imaging, and detection the successful applicant will develop and implement cutting edge photonics sensor concepts for scientific and industrial applications.

Responsibilities and tasks

The successful applicant will have the responsibility to strengthen the optical sensor research at DTU Fotonik, including:

- Development of light sources and nonlinear devices with new functionality for sensing purposes
- Imaging and sensing concepts with single photon sensitivity
- Investigation of noise sources in optical systems and their suppression
- Design and implementation of novel optical sensor technology for industry and society

The successful candidate is expected to take a lead role in teaching at the BSc, MSc and PhD levels. For international candidates, DTU offers Danish language courses for the purpose of being able to teach in Danish within the first 2-3 years.

The successful candidate is expected to take active steps towards fundraising of research activities within the research area.

The applicant should document and demonstrate a strong interest and ability to develop the innovative potential within the area of expertise.

The applicant must demonstrate successful research management experience, capability for cooperation with external partners, experience with experimental and theoretical research in novel sensing technologies and their use as industrial sensors.

The position requires a natural interest in initiating new activities within DTU Fotonik as well as with other research groups at DTU. The successful candidate is expected to have a responsibility for promotion of the section, internationally, and establish new collaboration partnerships.

Qualifications

The applicants must document considerable contributions within at least four topics mentioned below and must show considerable experience in collaboration with industry and external institutions.

We seek a professor who is motivated by both personal and team accomplishments, enjoying:

- collaboration and teamwork
- dialogue and feedback for improved decision-making

Assessment

In the assessment of the candidates, consideration 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

Consideration will also be given to:

- teaching and engagement with students
- experience with industrial collaboration (including industrial PhDs)
- Publications in high impact journals

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 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 Lars-Ulrik Aaen Andersen, tel.: +45 4525 3816.

You can read more about DTU Fotonik on www.fotonik.dtu.dk

Application procedure

Please submit your online application no later than **XXX 2018 (local time)**. 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 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
- 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.

The Department of Photonics Engineering has about 220 employees including 90 PhD students. DTU Fotonik is among the world's leading University departments within photonics research, education and innovation. DTU Fotonik attracts excellent researchers and students from all over the world. The activities span from quantum photonics, nanotechnology and metamaterials over nonlinear fiber optics, optical sensors and diode lasers & LED systems to optical communication systems and networks. Much of the research is carried out in cooperation with Danish and international partners.

DTU is a technical university providing internationally leading research, education, innovation and scientific advice. Our staff of 5,800 advance science and technology to create innovative solutions that meet the demands of society; and our 11,000 students are being educated to address the technological challenges of the future. DTU is an independent academic university collaborating globally with business, industry, government, and public agencies.