

Professor in Programmable Phase Optics

DTU Fotonik at the Technical University of Denmark invites applications for a position as Professor with special assignments (MSA) in research and innovation in Programmable Phase Optics.

DTU Fotonik is a department with the overall mission of contributing to research, development and education within photonics and materials science, laser technology, communication technology, and optical sensor systems.

Responsibilities and tasks

The activities of the professor will include research, innovation and education in the area of spatio-temporal modulation, encoding and shaping of light for contemporary solutions in optical parallel processing and interactive biophotonics at wavelength scales. DTU Fotonik is currently working with various proprietary technologies for the exploration and exploitation of real-time programmable methods for sculpting light in both space and time for advanced optical addressing, trapping, manipulation and characterisation.

The professor is expected to establish synergies between his/her own research and other departments at DTU working with related research activities (optofluidics, microfluidics, cell handling, and microbiology).

The successful applicant will be responsible for supervising PhD students and is expected to be involved in some teaching activities.

Qualifications

The applicant must demonstrate successful research management experience, capability for cooperation with external partners, and experience in theoretical and experimental research in the field of programmable phase optics relevant to the continued development of this photonics research field.

The applicant must be internationally recognized with documented research and/or research management experience in several of the following areas:

- Real-time spatial light modulation, encoding and shaping
- Optical parallel processing methods of the phase and polarisation of wavefronts
- Spatio-temporal light encoding for micro- and nano-scale biophotonics
- Interactive optical trapping and manipulation in parallel

It will be of importance that the applicant shows a strong interest and ability to develop innovation within the area of expertise.

Assessment

In the assessment of the candidates consideration will be given to

- scientific production at the highest international level, research potential and ability to lead and develop a world-class research team
- the ability to promote and utilize research results
- experience with innovation activities
- the ability to teach
- an all-round experience basis, including international experience

- the ability to contribute to the development of the department's internal and external cooperation
- track record in attracting funding to the research area
- visions within the research area
- track record for commercialisation of research results, including protection of intellectual property
- track record for fostering collaboration with industry.

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

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

Application procedure:

We must have your online application by **XXX 2013**. 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 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
- List of publications indicating scientific highlights
- Documentation of teaching experience
- A plan for future research

All interested candidates irrespective of age, gender, disability, race, religion or ethnic background are encouraged to apply.