Professor in Multi-core, Multi-mode Fiber Communication

DTU Fotonik at the Technical University of Denmark invites applications for a position as Professor in Multi-core, multi-mode fiber communication.

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.

The professor will be attached to the cluster for communication technology with 60 employees, one of the four main clusters comprising the Department.

Responsibilities and tasks
The activities of the professor will include research, education and innovation in the areas of advanced optical communication systems employing multi-core and multi-mode fibers that may provide a substantial capacity increase compared to the present systems in an energy-efficient way. The research ranges from the development of new optical fibers, multiplexing techniques, optical amplifiers, to novel optical devices to enhance both transmission capacity and distance.

The position covers research and research-based teaching including:

- Research – including scientific dissemination
- Research-based teaching (with associated examination commitments)
- Research leadership – in order to strengthen and develop the field of advanced optical communication systems
- External collaboration with internationally competitive academic institutions and industry
- Other duties:
    - Innovation and/or public-sector consultancy
    - Knowledge-exchange with society at large
    - Educational guidance and supervision of assistant professors and researchers
    - Academic assessment work.

The applicant must demonstrate successful research management experience, capability for cooperation with external partners, and experience in experimental and/or theoretical research on optical communication systems relevant to the continued development of the field.

The professor is expected to encourage synergies between his/her own research and other departments at DTU.

The successful candidate is expected to take a lead position in teaching at the bachelor-, master- and PhD levels.

Qualifications
Notable achievements are expected within research/innovation and research-related leadership, and generally achievements in extension of the qualifications stipulated for the position, which are:

- Extensive original scientific output at the highest international level that has been instrumental in advancement of the field in question.
- Documented and successful teaching experience at different levels within the University's study programmes, including, notably, at the PhD level.
- Documented research and/or research management experience in at least two of the following fields:
    - optical communication systems
    - fiber optics
    - guided-wave optics
    - optical signal processing
- Research leadership, including attending to leadership tasks in national or international projects, research programmes, conferences, etc.
- Innovation, including the advancement of patent areas, the application of research results in commercial contexts, etc.

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

- the ability to teach
- 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
- 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.

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.