Professor in Software Engineering

DTU—Technical University of Denmark invites applications for a permanent professorship in Software Engineering at DTU Compute (Department of Applied Mathematics and Computer Science). You will be section head of the Software and Process Engineering Section and be in charge of strengthening and further developing the research of this section in collaboration with the section members by setting the way the forward. The position is open from 1 February 2019.

You are expected to engage actively in the definition, development, and promotion of the future IT profile of DTU Compute, in particular by working together with other sections at DTU Compute and by encouraging your section members to engage in inter-sectional collaboration.

DTU Compute represents a unique combination of mathematics and computer science. Research at DTU Compute covers basic, strategic, and applied research within and between a broad range of topics, organized in eleven sections: Software and Process Engineering, Embedded Systems Engineering, Formal Methods, Algorithms, Logic and Graphs, Scientific Computing, Image Analysis and Computer Graphics, Cognitive Systems, Cyber Security, Mathematics, Statistics, and Data Analysis.

DTU Compute also plays a central role in education at all levels of the engineering programmes at DTU - both in terms of our scientific disciplines and our didactic innovation.

DTU Compute has strong collaborations with other departments at DTU and has extensive collaboration with national and international universities and industry—both concerning research projects, graduate theses, PhD projects, and research-based consultancy. DTU Compute has a total staff of 404 including 110 faculty members and 100 PhD students.

Research in the Software and Process Engineering Section is concerned with both the design and evaluation of IT artefacts, ranging from conceptual models, methods, techniques, and tools used for the systematic engineering of software and processes to entire software systems. Our design-oriented research focuses on adaptive software systems (i.e., flexible process-oriented information systems, neuro-adaptive software systems as well as context-aware cyber-physical systems), safety-critical systems, and domain-driven software engineering. Our empirical research is concerned with the intersection of human, task, and IT artefact to ensure fitness for purpose.

In recent years, we have seen software dramatically changing our society and how people, businesses, administrations, and governments interact with each other. Major parts of the software are run on smart devices, and parts of the software are run virtually all over the world. This has created completely new challenges as well as new opportunities for software development—with increased requirements on its reliability as well as on its security and privacy. These changes affect wide areas of Software Engineering, covering everything from the theoretical foundation to practical implementation.

You should be able to address these challenges based on the competences of the Software and Process Engineering Section and in close interaction with other sections at DTU Compute. You should demonstrate the ability to combine theoretical knowledge with practical development within one or more of the following (or closely related) areas:

- Formal Methods in Software Engineering
- Process Engineering
- Practical Software Engineering
- Empirical Software Engineering

- Modelling and Engineering

Responsibilities and tasks
The Software and Process Engineering section has 8 faculty members. As a Professor, affiliated with the Software and Process Engineering section, you commit to defining, developing and profiling the future IT profile of DTU Compute. You will be responsible for the development of the section, setting the way forward and for initiating and developing the collaboration with other sections as well as with industry.

The responsibilities and tasks include publication/scientific dissemination, knowledge-exchange with society at large, research-based teaching, and educational guidance, and supervision of Assistant Professors.

As head of section, you are also charged with supporting and nurturing the section members development in the research field, as well as supporting them in their career paths.

The successful candidate is expected to take a lead role in teaching and course development in the field of software and process engineering at all levels (i.e., BSc, MSc, and PhD). Teaching and development of courses have a very high priority at DTU Compute. We are constantly developing both introductory and advanced courses with respect to both content and the most modern educational tools and methods. The department is well-known for its modern, engaged and pedagogical teaching and prioritizes that all employees participate actively in course development.

For international candidates, DTU can provide Danish language courses enabling the candidates to teach in Danish within 2-3 years.

Qualifications
You should demonstrate the ability to combine theoretical knowledge with development of computational solutions in order to address problems arising in Software Engineering. Hands-on experience is an advantage. You must demonstrate leading-edge research in Software Engineering and the ability to obtain research funding and form industrial collaborations. Notable achievements will be expected within research/innovation and research-related leadership, and in general, high achievements are expected in extension to the qualifications stipulated for the position, which are:

- Extensive original scientific output at 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 PhD level.
- Documented experience in research leadership, including attending to leadership tasks in national or international projects, research programmes, conferences, etc.
- You believe in dialogue and feedback as the best foundation for sound decision-making
- You understand that reflection and personal development is vital for innovation
- You strive to develop talent amongst others
- You understand the interpersonal aspects of group development and success

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

Consideration will also be given to:

- Leadership experience with team performance
- Interpersonal skills.
- Personal integrity

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 upon with the relevant union.

Further information
Further information may be obtained from Head of Department Per Brockhoff, tel.: +45 4525 2365.

You can read more about DTU Compute at www.compute.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.