



*UiT the Arctic University of Norway is massively extending its efforts in education and research in the field of health technology. This effort is a follow-up to the governmental strategic plan for Research and higher education in Norway, within the fields of “new technologies”, “digitalisation” and “health”. Starting with fall semester 2018, two 5-year studies will educate masters of technology with a specialization in health technology. The programs are specializations within the integrated master programs in computer science, and in applied physics and mathematics.*

*This strategic initiative builds on a long track record of collaboration between the Faculty of Science and Technology, the Faculty of Health Sciences, and the University Hospital of North Norway. One of the highlights in this long-term collaboration was the Tromsø Telemedicine Laboratory (TTL, 2007-2014) as one of the first Centers for Research Based Innovation (SFI) at UiT, with these three stakeholders among the consortium members.*

*Based on this expertise, we wish to recruit four new professors/associate professors with the ambition to advance the field of health technology at UiT to the highest international level. We announce four positions in computer science, and one position in [machine learning](#).*

*The fields of expertise for the announced positions provide key technologies required to shape future health care and healthy living, by enabling applications spanning from smart homes and assisted living based on a huge variety of sensors, via diagnostic support systems and big data analytics, to highly specialized surgical interventions using robotics and augmented reality.*

## Four Professors/Associate Professors in Computer Science

UiT the Arctic University of Norway wishes to recruit four new professors/associate professors in computer science with the ambition to advance the field of health technology at UiT to the highest international level. Computer science is a key discipline in this context and in general, with regard to its ubiquity in our digital society.

Research at the [Department of Computer Science](#) focuses on fundamental computer systems research, systems software, application software, and system prototype development. We are concerned primarily with technical aspects of computer science systems research of mobile, distributed and parallel systems and applications. The research covers experimental development, application, analysis and testing of models, architectures, and mechanisms for mobile, embedded, distributed and/or parallel applications. Scaling, performance, handling of large feature-rich datasets, heterogeneity, energy-efficiency, autonomy, and componentization are examples of concerns that we address.

We seek candidates for four positions within computer science at a level beyond PhD and preferentially with experience in health technology:

**Position A: Systems security and privacy**, with research groups [Information Access](#); [Open Distributed Systems](#). The successful candidate on this position will be an expert in the data security and privacy domain with a strong emphasis of how to design and build secure distributed systems, and explore and create new cutting-edge methods. Applications and topics within health technology include secure management of health data, authentication, anonymization, pseudonymization, security policy enforcement, enabling safe services for patients, citizens and health professionals.

**Position B: Cyber-physical systems**, with research groups [High-Performance Distributed Systems](#); [Arctic Green Computing](#); [Information Access](#); [Medical Informatics & Telemedicine](#). The successful candidate on this position will be an expert in the research and development of systems that integrate computing, networking, and physical processes for application domains including communication, energy, and health. Applications within health technology include smart homes, computer aided diagnosis, energy aware biosensor networks, augmented and virtual reality for image guided intervention, and biosensor enhanced disease prevention.

**Position C: Analytical and intelligent systems**, medical computer science, with research groups [Medical Informatics & Telemedicine](#), [Information Access](#), [Biological Data Processing Systems](#). The successful candidate on this position will be an expert in how to design and develop powerful, scalable data analysis systems that can extract knowledge from large and rich data sets. Applications of such systems in health technology include the analysis of big data from clinical and epidemiological trials, intelligent analysis of multimodal data (images, videos, sound, time series), decision support systems, biological data analytics.

**Position D: Data integration and management systems**, with research groups [Open Distributed Systems](#), [Biological Data Processing Systems](#), [Arctic Green Computing](#). The successful candidate on this position will be an expert in the integration of heterogeneous data sources and the management of large data repositories, including energy-efficient data management. Applications in health technology include data warehouses for point-of-care support systems and for clinical trials, export of data from medical information systems for teaching and research, and large genetics databases.

Applicants must clearly indicate which position(s) they are applying for.

Further information about the positions is available by contacting Head of Department:

- Alexander Horsch, email: [alexander.horsch@uit.no](mailto:alexander.horsch@uit.no).

For administrative questions, please contact the Department's administration:

- Svein Tore Jensen, email: [svein.tore.jensen@uit.no](mailto:svein.tore.jensen@uit.no).

### Qualification requirements

The candidate must hold a PhD, have demonstrated an ability to conduct outstanding research, and have a strong commitment to engagement outside of academia in ways that foster significant commercial or societal impact.

*For a position as associate professor*, applicants should have a good publication record in terms of papers in peer-reviewed journals and other relevant international publication channels. Documented external funding, experience with research leadership and relevant collaboration with industry will be rated positively. An associate professor is expected to aim at developing further to a full professor.

*For a position as professor*, applicants should demonstrate international experience and have a strong publication record in terms of papers in peer-reviewed journals and other relevant international publication channels. Applicants should document the ability to obtain external funding from relevant sources, and be able to initiate and lead research at a high international level. We will also assess outreach, network and teaching and supervision activities.

UiT follows [national guidelines](#) for professorial promotion within Mathematics, Science and Technology disciplines when evaluating candidates for professorships.

We ask the applicant to provide a 1-page research plan describing his/her anticipated research activities over the next 3-5 years. The plan should be realistic and also make clear where the applicant expects internal collaboration at the department as part of the plan, and which external partners are meant to be involved, including information on how well collaboration with these partners has already been established.

In the documentation of external research funding raised during the career applicants should clearly state her/his role in the acquisition and conduction of the project.

We will emphasize personal suitability in our assessment. We expect the candidate to actively contribute to academic culture, think beyond the core of the own research interests, and have good collaboration skills necessary for joint interdisciplinary projects. The candidate must be willing to participate actively in the ongoing development of the discipline, the department, and the university as a whole.

Applicants must be fluent in oral and written English. The candidate who is not fluent in a Scandinavian language must learn Norwegian within 3 years and pass the language exam level C1 ("Bergenstesten" or equivalent).

### Teaching qualifications

Teaching qualification must be documented by submitting a teaching portfolio, see the website for [basic pedagogical competence](#).

In the case of documented teaching experience but lacking teaching portfolio, the applicant should develop a portfolio within a three-year period. Interim appointment based on lacking documented teaching qualifications can be considered, as described below. By exception, the committee may determine that the applicant's practical teaching skills is of equal value to formal teaching qualifications.

### Application

The application must include:

- Letter of application. Clearly indicate which position(s) you are applying for.
- Diplomas.
- CV including information relevant for the qualifications and a full list of publications with bibliographical references.
- Brief research plan (1 page) for the next 3-5 years, also identify internal and external collaboration partners.
- Documentation of external research funding raised during the career. This documentation should be clear about what type of roles the applicant had in the projects.
- Up to ten top scientific publications. The doctoral thesis is regarded as one work.
- Description of own research stating which works the applicant considers most important, and a brief description of the other listed works.
- Teaching portfolio of minimum three pages to inform about work with students, describe and reflect on own teaching, and present contributions to development of teaching. It will typically contain teaching philosophy, documentation of teaching activities demonstrating planning, accomplishments and assessment, evaluations of the teaching, and experiences in developing courses and curricula. Attach certificates, reports, and other relevant documents.

Documentation have to be in English or a Scandinavian language. Submit applications electronically through Jobbnorge.

### Interim appointment

If there are no fully qualified applicants for the position, we may make an interim appointment to qualify during a period of three years. Before the three-year period elapses a permanent appointment is made in the event of suitably qualification, based on a new assessment.

In the event of an interim appointment based on lacking teaching qualifications, the candidate must develop an approved teaching portfolio. The appointment will become permanent if the candidate, through a new application, is found to be suitably qualified before the three-year period elapses.

### We offer

- Allocation of resources for start-up in the position
- The possibility to work in a vibrant group

- R&D sabbatical conditions which are considered to be some of the best in the country
- A good working environment
- Good welfare arrangements for employees
- Good arrangements for pension, insurance and loans in the Norwegian Public Service Pension Fund

The remuneration for Professor is in accordance with the State salary scale code 1013, and Associate Professor in accordance with code 1011. A compulsory contribution of 2 % to the Norwegian Public Service Pension Fund is deducted. In addition to the salary; UiT pays approx. 12 % directly to the Pension Fund.

Employees in permanent positions as professor/associate professor have the right to apply for a paid sabbatical (research and development).

In general, a professor/associate professor spend an equal amount of time on teaching and research and development work, after time spent on other duties has been deducted. As a norm, the time resources spent on administrative duties constitutes 5 % for academic staff in this category of position. The allocation of working hours is flexible and allocated on a case-by-case basis.

More information about moving to Tromsø: <http://uit.no/mobility>.

### **Working conditions**

The candidate must participate in teaching computer science at all levels and formats offered by the department. This includes supervision of undergraduate and graduate projects.

The professor/associate professor will work with one or more of the department's research groups and must contribute to enhance the department's research within the described areas. There are excellent opportunities to develop research projects in collaboration with other faculty members across the groups. The professor/associate professor is expected to be successful in raising external research funds.

### **General**

We make the appointment in accordance with the regulations in force concerning State Employees and Civil Servants, and guidelines at UiT. At our website, you will find more [information for applicants](#).

UiT the Arctic University of Norway wishes to increase the proportion of females in senior research positions. In the event that two or more applicants are found to be approximately equally qualified, female applicants will be given priority.

UiT the Arctic University of Norway has HR policy objectives that emphasize diversity, and encourages all qualified applicants to apply regardless of their age, gender, functional ability and national or ethnic background. The university is an IW (Inclusive Workplace) enterprise, and emphasize making the necessary adaptations to the working conditions for employees with reduced functional ability.

Personal data given in an application or CV is processed in accordance with the Personal Data Act. You may request not to be registered on the public list of applicants, but the University may decide that your name will be made public. You will receive advance notification in the event of such publication.

Jobbnorge ID: 147110, Deadline: Closed