



PhD Candidate in Computer Science

The position

A PhD position is available at the Department of Computer Science with the research group Computational Analytics and Intelligence (CAI), and the project "Intelligent, automated, networked mobile devices in cyber-physical systems (CPS) for efficient manufacturing and Industry 4.0".

The appointment is for a period of four years for a candidate with knowledge, skills and will to successfully complete the PhD study within the time frame.

The project

To pursue smart and automated manufacturing that is self-monitoring and self-healing, it requires smart connected volatile AI-systems with intelligent automated, networked and mobile devices. The AI-system is of multidisciplinary kind and includes different types of hardware, software, artificial intelligence techniques depending on the available parts and the services to be delivered.

The goal is to provide a powerful, smart, and cost-saving volatile AI-systems with centered, ubiquitous and malleable parts, i.e., devices, sensors and services. Volatile means in real-time construct a task-dependent network of devices and deploying it into the factory. It is to be smart everywhere by collaborating with several different hardware and software systems and cooperating to perform complex tasks. By including ubiquitous and malleable parts in the system, it can facilitate an informed and engaged populace.

A virtual copy of the physical machine with all parts (so called digital twin) must be developed to then carry out the decision-making and negotiations, which is based on the manufacturing company preferences. The solution can be applied in Industry 4.0 and different infrastructures, such as transport, buildings, energy, manufacturing, and healthcare.

Contact

For further information about the position, contact Professor Anne Håkansson:

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- email: anne.hakansson@uit.no

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

- phone +47 77644036
- email: administrasjon.ifi@nt.uit.no

Qualifications

This position requires a Master's degree or equivalent in Computer Science. It will be preferable with knowledge of relevance to the project as described above. Documented fluency in English is required.

Candidates in the final phase of their Master study may apply. A preliminary version of the dissertation can be included if the final version is not ready before the application deadline. Information about the delivery deadline for the dissertation should be given. A completed degree must be documented before an acceptable date for commencement.

The position requires admission to the PhD programme. Information about requirements and the PhD programme is available here: <https://uit.no/nt/phd>

During the assessment, emphasis will be put on your potential for research, motivation and personal suitability for the position.

Application

Your application must include:

- Cover letter explaining your motivation and research interests
- CV - summarizing education, positions and academic work
- Diplomas and transcripts from completed Bachelor and Master degrees
- Documentation on English [proficiency](#)
- References with contact details

- Master thesis, and any other academic works

Documentation has to be in English or a Scandinavian language. We only accept applications through Jobbnorge.

Terms of employment

The appointment is for a period of 4 years, and the nominal length of the PhD program is three years. The fourth year is distributed as 25 % of each year, and will consist of teaching or other duties for the department.

Remuneration of PhD positions are in salary code 1017. In addition to taxes, 2% is deducted for the Norwegian Public Service Pension Fund.

More practical information for working and living in Norway can be found here: [Welcome to UiT!](#)

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](#).

As many as possible should have the opportunity to undertake organized research training. If you already hold a PhD or have equivalent competence, we will not appoint you to this position.

A good work environment is characterized by diversity. We encourage qualified candidates to apply, regardless of their gender, functional capacity or cultural background. UiT will emphasize making the necessary adaptations to the working conditions for employees with reduced functional ability

According to the Norwegian Freedom and Information Act (Offentleglova) information about the applicant may be included in the public applicant list, also in cases where the applicant has requested non-disclosure.

UiT The Arctic University of Norway

UiT - Developing the High North

[UiT](#) is a multi-campus research university in Norway and the northernmost university of the world. Our central location in the High North, our broad and diverse research and study portfolio, and our interdisciplinary qualities make us uniquely suited to meet the challenges of the future. At UiT you can explore global issues from a close-up perspective.

Credibility, academic freedom, closeness, creativity and commitment shall be hallmarks of the relationship between our employees, between our employees and our students and between UiT and our partners.

Department of Computer Science

The [Department of Computer Science](#) provides a strong international research environment with 15 tenured faculty members, 4 adjunct professors, 4 post doctors and researchers, 7 technical/ administrative staff members and about 20 PhD students.

The goal of the Department is to advance the research and teaching of computer science as a discipline, to demonstrate leadership within our areas of interest, and to contribute to society through our education, research and dissemination.

Jobbnorge-ID: 167743, Søknadsfrist: Søknadsfristen er gått ut