



**UiT Norges  
arktiske  
universitet  
Fakultet for  
naturvitenskap og  
teknologi - Institutt  
for informatikk**

# Post doctoral research fellow in Computer Science at Department of Computer Science.

The Department of Computer Science at University of Tromsø - The Arctic University of Norway (UiT) has a Postdoctoral Research Fellow position vacant. The position is attached to the [Arctic Green Computing](#) (AGC) research group.

The position of Postdoctoral Research Fellow is a fixed term position for a period of three years. The primary objective of the appointment is for the research fellow to qualify for work in senior academic positions. No one may be appointed to more than one fixed term period as a Postdoctoral Research Fellow at the same institution.

Further information about the position is available by contacting Associate professor Phuong Hoai Ha, phone +47 7764 4032, e-mail: [phuong.hoi.ha@uit.no](mailto:phuong.hoi.ha@uit.no). For administrative questions, please contact the Department's administration; phone +47 7764 4036, email: [administrasjon@cs.uit.no](mailto:administrasjon@cs.uit.no).

## The position's affiliation

[UiT The Arctic University of Norway](#) is the largest research and educational institution in northern Norway with about 15,800 students and 3,400 employees. UiT is a founding member of the University of the Arctic, an international network of study and research institutions of the circumpolar region. Two hundred international agreements secure an active academic exchange of students and staff with partner institutions worldwide.

The Department of Computer Science provides a strong international research environment with 12 tenured faculty members, 4 adjunct professors, 4 post doctors and researchers, 6 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. More information available at <https://uit.no/informatikk> and a more extensive description of our research groups at: <http://uit.no/informatikk/forskning/>.

The [Arctic Green Computing](#) (AGC) research group aims at addressing energy efficiency, system complexity and dependability across mobile, embedded and data centre systems. The group current research interests include novel execution models forming foundations for a paradigm shift from energy “blind” to energy “aware” software development and, at the same time, facilitating programming productivity on energy-efficient computing systems. The group research has been funded by European Commission (FP7), Norwegian Research Council (FRIPRO) and UiT. The group is a work-package leader in EU FP7 ICT project [EXCESS](#) on energy-efficient high-performance computing systems (2013 - 2016) and the project leader of Norwegian FRIPRO project [PREAPP](#) on programming productivity and energy efficiency (2014 - 2019). The group is also the Norwegian representative in the management committee of the EU COST Action [Euro-TM](#) on concurrent programming abstractions (2011 - 2015) and a member of EU network of excellence [HiPEAC](#) on high performance and embedded architecture and compilation.

## The position's field of work

In today's exponential world of digital data, computing technology plays an essential role in addressing our major social challenges including climate change, health, energy and education. Worldwide computing systems currently consume 30 billion watts, equivalent to the output of 30 large nuclear power plants. Energy efficiency is therefore considered a major criterion for “sustainable” computing systems and services over the data deluge. However, energy-efficient computing systems make parallel programming even more complex and thereby less robust due to requirements of massive parallelism, heterogeneity and data locality.

The research project aims at devising novel programming models that will form foundations for a paradigm shift from energy “blind” to energy “aware” software development. The new models will enable significant improvement in energy efficiency in comparison with today's multicore computing, thereby greatly advancing green computing and sustainable services. The new models will facilitate unprecedented productivity for implementing scientific big data applications that run effectively on large-scale platforms, which are based on cutting-edge multicore architectures. The threshold of adopting large-scale parallel computing will thus be considerably lowered for a large number of computational scientists in several disciplines.

## Qualification requirements

The successful candidate will have a publication record that documents solid knowledge in computer science, and strong research skills on technical aspects of experimental computer science. We are looking for candidates who have demonstrated increased scientific maturity regarding their selection of research topics, application of methods, and dissemination of results. Research results must be backed by thorough experiments and analyses.

The successful candidate should have a strong interest in at least one of the following topics: energy-efficient computing, programming abstractions, programming systems and run-time systems. Experience of partitioned global address space (PGAS) programming and convolutional neural network (CNN) is a plus.

For appointment as Postdoctoral Fellow, the applicant requires:

- Norwegian doctoral degree in the subject area concerned or a corresponding foreign doctoral degree recognized as equivalent to a Norwegian doctoral degree.

When applying for a Postdoctoral Research Fellowship, the applicant shall submit a project proposal for the qualifying work. This proposal shall include a progress plan. It is required that the applicant will be able to complete the project during the period of appointment. Before appointment the successful applicant and the department must agree on a primary supervisor for the project. Additional co-supervisors will be decided only after the appointment.

Applicants should have a good command in English.

Emphasis shall be attached to personal suitability.

#### **Working conditions**

The working hours shall primarily be utilized for research, research-related activities and research administration. The research fellow is expected to participate professionally within the department with occasional advice of students; presentations for faculty and students, laboratory assignments etc., totaling up to 20 % of the position. The position will not include regular teaching assignments.

The successful applicant must be willing to engage himself/herself in the ongoing development of computer science as a discipline, the department, and of the university as a whole.

The remuneration for this position is in accordance with the State salary scale code 1352. At present, the gross salary starts from NOK 489,300 per year, depending on qualifications.

A compulsory contribution of 2 % to the Norwegian Public Service Pension Fund will be deducted.

#### **Assessment**

An expert committee will assess the applicants. The committee's mandate is to undertake an assessment of the applicants' qualifications for the position based on the documents presented by the applicants, and the detailed description drawn up for the position.

The applicants who are assessed as the best qualified might be called to an interview. The interview shall among other things aim to clarify the applicant's personal suitability for the position. A trial lecture may also be requested.

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

#### **Application**

The **application** must be submitted electronically via the application form available on [www.jobbnorge.no](http://www.jobbnorge.no) and shall include:

- Letter of application
- Diplomas
- CV with:
  - A complete overview of education, supervised professional training and professional experience
  - Names and e-mail address of references
  - List of scientific publications, including information about author(s), the publication's title, the journal's name and volume or the publisher's name, year of publication, and number of pages.
  - The applicant must submit in the portal up to ten scientific publications that are central to his/her production. The applicant's doctoral thesis is regarded in this context as one work.
  - In addition, the applicant shall provide a description of his/her production stating which works he/she considers the most important and which shall therefore be the main emphasis of the assessment. A brief description of the other listed works shall also be included to demonstrate breadth of production. These descriptions shall be an attachment to the application.
- Project proposal with a progress plan (3 to 5 pages)
- Form for documentation of [teaching qualifications](#).

*All documentation that is to be evaluated must be translated into English or a Scandinavian language.*

Applicants shall also refer to the [Supplementary regulations for appointment to postdoktor \(Postdoctoral Fellow\), stipendiat \(PhD\) and vitenskapelig assistent \(Research Assistant\) positions at UiT](#) and to the [Regulations concerning terms and conditions of employment for posts of postdoktor \(Postdoctoral Fellow\), stipendiat \(PhD\), vitenskapelig assistent \(Research Assistant\) and spesialistkandidat \(Resident\)](#).

Questions concerning the organisation of the working environment, such as the physical state of the place of employment, health service, possibility for flexible working hours, part time, etc. may be directed to the telephone reference in this announcement.

UiT has HR policy objectives that emphasize diversity, and therefore encourages 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 will therefore emphasize making the necessary adaptations to the working conditions for employees with reduced functional ability.

Personal data given in an application or CV will be processed in accordance with the Act relating to the processing of personal data (the Personal Data Act). In accordance with Section 25 subsection 2 of the Freedom of Information Act, the applicant may request not to be registered on the public list of applicants. However, the University may nevertheless decide that the name of the applicant will be made public. The applicant will receive advance notification in the event of such publication.

Jobbnorge ID: 132552, Deadline: Closed