

Assistant professor

Ecole/Institution/Société:

KTH Royal Institute of Technology, Sweden / Stockholm

Discipline:

Quantum Computing

Type d'emploi::

Full-time

Date de publication:

2025-02-23

Personne à contacter:

If you wish to apply for this position, please specify that you saw it on AKATECH.tech

Assistant professor in Quantum Information Theory and Processing

Subject description

The subject pertains to theories and principles of communication and information processing using quantum mechanical phenomena. It therefore encompasses aspects of quantum communication, information processing, coding, security, algorithms, and learning. While grounded in quantum mechanical principles, the subject field lies at the intersection of information theory, computer science, signal processing, and machine learning.

Duties

The position includes research and teaching within the subject field. The assistant lecturer is expected to eventually establish an independent research group within the subject field. The work includes attracting research funding, supervising doctoral students and postdoctoral fellows, and establishing research collaborations both within and outside KTH. The work also includes teaching subjects at basic and advanced levels at the Department of Intelligent Systems and at the Department of Computer Science, as well as supervising degree theses.

The assistant professor will be given opportunity to develop their independence as researcher and gain accreditation that may allow them to take other teaching positions with higher eligibility requirements (see Chapter 4, Section 12 a of the Higher Education Ordinance). Following application, the assistant professor can apply for promotion to associate professor in accordance with Chapter 4, Section 12 c of the Higher Education Ordinance.

Eligibility

An individual who has completed a doctorate or equivalent scientific competence is qualified for appointment as an assistant professor. Candidates who met those qualifications a maximum of seven years before the deadline for applying for the appointment as an assistant professor has expired should be prioritized. Other candidates may also be considered there are special reasons.

Special reasons refers to absence due to illness, parental leave or other similar circumstances.

Assessment criteria

The assessment criteria for appointment as an assistant professor at KTH are stated in KTH's appointments procedure section 1.3, and apply in relation to the employment profile laid down.

It is of the highest importance that the candidate has demonstrated

scientific expertise, demonstrated through scientific publications, conference attendance, involvement in research collaborations, and also other undertakings in the scientific community, such as assignments as a reviewer or expert.

experience from a postdoctoral visit in a research environment other than the university at which the applicant defended their doctoral thesis. Experience from research and development work within the industry or other organizations may be considered equivalent to a traditional postdoc visit at another university.

It is of the second highest importance that the candidate has demonstrated

potential for qualification for a higher teaching post. This includes the potential for independent development as a researcher and teacher within the subject field in question and also the ability to establish, review and develop the research area in question.

an interest in and understanding of pedagogical development within the subject field in question.

It is also of importance that the candidate has demonstrated

interest in and insights concerning leadership in academia, collaboration with the outside community, and awareness of diversity and equal opportunity issues, with a particular focus on gender equality.

administrative proficiency.

Special grounds of assessment for promotion to associate professor

When assessing applications for promotion to associate professor, provisions according to Section 1.2.4 of Appointments procedure at KTH will be applied. Ability to teach in Swedish is a merit that is given great importance in the application for promotion.

Trade union representatives

Contact information to trade union representatives can be found at KTH's web page.

Application

Your application should follow KTH's CV template for employment of teachers. It is the responsibility of the applicant to ensure that the application is complete according to the requirements in the ad and CV template.

Your complete application must be received at KTH no later than the last day of application, midnight CET/CEST (Central European Time/Central European Summer Time).

Log into KTH recruitment system in order to apply to this position.

Other

The position is largely funded by the Wallenberg Center for Quantum Technology (WACQT), and comes with a start package. Wallenberg Centre for Quantum Technology (WACQT) is a 12-year one-billion-SEK research programme that aims to take Swedish research and industry to the forefront of quantum technology – a very rapidly expanding area of technology. WACQT is the Swedish national initiative for strategically motivated basic research, education and faculty recruitment in quantum technology, aiming at developing and securing Swedish expertise within its main areas, encompassing quantum computing and simulation, quantum communications and quantum sensing. In addition, WACQT promotes career development, diversity and equality through networking and support activities at the national level.

Time limitation:The appointment is for an indefinite term, but no more than six years, and may be extended if, due to the teacher's absence due to sick leave, parental leave or other special grounds, more time is required to reach the objectives of the appointment. However, the total appointment period may not exceed eight years. The appointment is part of the Tenure Track system at KTH and the assistant professor may apply for promotion to tenured associate professor.

For more information regarding KTH's assessment, see [Appointments procedure at KTH](#)

Striving towards gender equality, diversity and equal conditions is both a question of quality for KTH and a given part of our values.

For information about processing of personal data in the recruitment process please read [here](#).

It may be the case that a position at KTH is classified as a security-sensitive role in accordance with

the Protective Security Act (2018:585). If this applies to the specific position, a security clearance will be conducted for the applicant in accordance with the same law with the applicant's consent. In such cases, a prerequisite for employment is that the applicant is approved following the security clearance.

KTH Relocation offers help to relocate and settle in Sweden and at KTH, please read [here](#).

We firmly decline all contact with staffing and recruitment agencies and job ad salespersons.

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