

Professor, Control and Automation of Chemical Processes
Aalto University

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Posted Jul. 7, 2025, set to expire Dec. 31, 2025

Job Title	Professor, Control and Automation of Chemical Processes
Department	T106 Chemical and Metallurgical Eng
Institution	Aalto University , , Finland
Date Posted	Jul. 7, 2025
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Professor
Academic Field(s)	Chemical/Petroleum
Job Website	https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Professor--Control-and-Automation-of-Chemical-Processes_R43641

Apply By Email

Job Description

Aalto University is where science and art meet technology and business. We shape a sustainable future by making research breakthroughs in and across our disciplines, sparking the game changers of tomorrow and creating novel solutions to major global challenges. Our community is made up of 13 000 students, 400 professors and close to 4 500 other faculty and staff working on our dynamic campus in Espoo, Greater Helsinki, Finland. Diversity is part of who we are, and we actively work to ensure our community's diversity and inclusiveness. This is why we warmly encourage qualified candidates from all backgrounds to join our community.

The School of Chemical Engineering is one of the six schools of Aalto University.
[url=https://www.aalto.fi/en/departments-of-chemical-and-metallurgical-engineering]Department of Chemical and Metallurgical Engineering focuses on sustainable utilization of raw materials, designing

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and developing more efficient processes for new materials and products. We as chemical engineers contribute to the future society with sustainable processes enabling circular economy and bioeconomy.

The Department of Chemical and Metallurgical Engineering at Aalto University School of Chemical Engineering is looking for a

PROFESSOR, CONTROL AND AUTOMATION OF CHEMICAL PROCESSES

Are you passionate about the world of process control and multiple technologies that will contribute to the next generation control and automation solutions?

The Department of Chemical and Metallurgical Engineering at Aalto University invites applications for tenure-track positions in the field of Control and automation of chemical processes. The position can be filled at any level of the Aalto tenure track system (assistant, associate or full professor). The position is full-time and depending on the positioning on the tenure track, either on fixed or permanent term.

Job description

We are looking for outstanding candidates with track record in the area of process control and automation, including ability to teach at B.Sc. and M.Sc. levels and conduct successful research projects as part of doctoral education and ability to acquire funding for research. We strongly welcome an industrial mindset to support the Finnish industry in transitioning into future sustainable processes. Viewing control as an integrative part of automation systems is elementary and opens multiple collaboration opportunities within the department, university and through industrial partnerships. Chemical processes should be familiar to you in order to be able to do systems identification and model process dynamics using traditional and advanced tools such as machine learning.

Your role and goals

You will work in collaboration with other researchers (e.g. in design, operations and process development) creating the interface between industrial processes (e.g. chemical, metallurgical, pulp & paper, biotechnical) and dynamic process models. Having enthusiasm in control and a good balance between theory and practice is essential. Good programming skills also support the development of digital twins, soft sensors, ML-supported control systems and other elements of future automation. Aalto has many cutting-edge capabilities for instance in metallurgical processes, material design, as well as a very strong representation in the field of machine learning and artificial intelligence research with the access to [\[url=https://www.lumi-supercomputer.eu/\]](https://www.lumi-supercomputer.eu/)LUMI, one of the most powerful supercomputers in the world. These will help to define and build the future elements for more safe and sustainable automated chemical plants.

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Your network and team

As a professor, you are expected to build up your own research team (e.g. doctoral students and postdoctoral researchers) and use existing and future collaboration networks inside and outside the university for creating world-class research.

Your experience and ambitions

A Doctoral degree in process engineering, chemical engineering, systems engineering, industrial engineering, applied mathematics or another field linked to chemical engineering problems, is a prerequisite for the position. We are looking for a publication track record in the development and application of process control methods related to industrial chemical processes. We expect you to establish a high-level research group in process control, process identification and modeling, data analytics and automated decision-making. We value your commitment to high-level teaching as the position includes teaching and supervision at the Bachelor, Master's, and Doctoral levels. We are looking for candidates who can teach in English, but knowledge or interest to learn Finnish, or Swedish can be an asset. Proven ability to obtain external funding, experience of researcher supervision, and industrial collaborations are considered as merits.

What we offer

The successful candidate will have the opportunity to join a vibrant community of researchers and contribute to the department's strong reputation for excellence in chemical and metallurgical engineering research and education. At Aalto University you have the possibility to work within a well-resourced learning community where the students are rigorously selected and highly motivated. This results in an unusually interactive and intellectually challenging atmosphere.

We offer: * Excellent multidisciplinary collaboration within the university * Meaningful and inspiring environment. We are proud of our purpose to shape a sustainable future. We spark the game changers of tomorrow, and renew society with research-based knowledge, creativity and an entrepreneurial mindset * Culture that inspires and includes everyone. All our work is guided by the values of the university: responsibility, courage, and collaboration. It's the people that create Aalto, now and in the future. We want to be an open community where equality and inclusion enable curiosity, innovation, collaboration and wellbeing * Aalto University provides its employees with occupational health care services and retirement benefits. Finland is a healthy and safe living environment, offering many excellent state-subsidized services including affordable day care, free schools and universities, which are consistently ranked among the best in the world. More information about living and working in Finland <https://www.aalto.fi/en/careers-at-aalto/for-international-staff>. * We work in a hybrid way, and the primary workplace is Otaniemi, Espoo. The Otaniemi campus is a thriving and connected community of 100 nationalities, 13,000 students and 4,500 employees. Life at the transformed campus is vibrant and filled with amazing architecture, calming nature, and a variety of cafes, restaurants, services and good connections along the recently opened metro line

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Aalto University follows the salary system of Finnish universities. As an employer, Aalto University provides excellent staff training and mentoring programmes, as well as occupational health care services, commuter ticket benefits, campus sport facilities and retirement benefits. In addition, we offer Start-up funding and grant writing support to help you establish your own team.

For more information?

For additional information, please contact the chair of the departmental committee Professor Iiro Harjunkoski, or in questions related to the recruitment, please contact HR Partner Alice Björklund ([\[url=mailto:firstname.lastname@aalto.fi\]](mailto:firstname.lastname@aalto.fi)).

Ready to apply?

If you want to join our community, please submit your application through our recruitment system by August 31st, 2025

To apply, please share the following application materials with us in English and in PDF: * Application letter * Curriculum Vitae. Please use the [\[url=https://www.tenk.fi/en/template-researchers-curriculum-vitae\]](https://www.tenk.fi/en/template-researchers-curriculum-vitae) template recommended by The Finnish Advisory Board on Research Integrity (TENK). Please also include names and contact information for references * List of publications (with 10 most relevant publications regarding this position highlighted) * A research statement describing your past research and plans for future research and activities * Teaching portfolio (please see the University's instructions and make sure your teaching portfolio complies with them. See

[\[url=https://www.aalto.fi/sites/g/files/flghsv161/files/2021-](https://www.aalto.fi/sites/g/files/flghsv161/files/2021-01/Teaching%20competence%20assessment_Guidelines_for_candidate_2020_Aalto%20University_FINAL.p)

[01/Teaching%20competence%20assessment_Guidelines_for_candidate_2020_Aalto%20University_FINAL.p](https://www.aalto.fi/sites/g/files/flghsv161/files/2021-01/Teaching%20competence%20assessment_Guidelines_for_candidate_2020_Aalto%20University_FINAL.p)

[\[url=https://www.aalto.fi/sites/g/files/flghsv161/files/2021-](https://www.aalto.fi/sites/g/files/flghsv161/files/2021-01/Teaching%20competence%20assessment_Guidelines_for_candidate_2020_Aalto%20University_FINAL.p)

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[\[url=https://www.aalto.fi/sites/g/files/flghsv161/files/2021-](https://www.aalto.fi/sites/g/files/flghsv161/files/2021-01/Teaching%20competence%20assessment_Guidelines_for_candidate_2020_Aalto%20University_FINAL.p)

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[\[url=https://www.aalto.fi/sites/g/files/flghsv161/files/2021-](https://www.aalto.fi/sites/g/files/flghsv161/files/2021-01/Teaching%20competence%20assessment_Guidelines_for_candidate_2020_Aalto%20University_FINAL.p)

[01/Teaching%20competence%20assessment_Guidelines_for_candidate_2020_Aalto%20University_FINAL.p](https://www.aalto.fi/sites/g/files/flghsv161/files/2021-01/Teaching%20competence%20assessment_Guidelines_for_candidate_2020_Aalto%20University_FINAL.p)

The applicants will be reviewed based on their research achievements in relation to their career stage, their teaching merits and activity in the scientific community. Shortlisted applicants will be invited to a site visit at Aalto.

Please note that Aalto University's employees should apply for the position via our internal HR system Workday (Internal Jobs) by using their existing Workday user account (not via the external webpage for open positions).

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General instructions for applicants including evaluation criteria, language requirements and guidelines for compiling your CV are given at <https://www.aalto.fi/en/tenure-track/interested-in-joining-our-tenure-track>.

You can watch these videos: https://www.youtube.com/watch?v=5k_og_6zUJQ]Aalto University - Towards a better world, <https://www.youtube.com/watch?v=dUfEGVM-ZP8&feature=youtu.be>]Aalto People , and

https://www.youtube.com/watch?v=ZK6pDWm1_CE]Shaping a Sustainable Future. Read more about working at Aalto: <https://www.aalto.fi/en/careers-at-aalto>

Check out our new virtual campus experience: <https://virtualtour.aalto.fi/>]

Tenure track in Aalto University

The position is a tenure track position. Individuals appointed to the tenure track have the opportunity to conduct research and/or artistic work and teach in order to build academic merits towards qualifying for an appointment to a tenured position.

Since 2010, the tenure track has attracted a wide range of international applicants, giving Aalto University the possibility of recruiting top experts and young talent to join the Aalto University community.

Throughout their careers, those in the tenure track system are expected to conduct and supervise artistic/scientific research and/or artistic/design work, to provide related academic education, contribute to developing their field or discipline, as well as contribute to academic service the university and beyond in the society. For more information on the tenure track system of Aalto University, please see <https://www.aalto.fi/en/tenure-track>

About Finland

Finland is a great place for living with or without family - it is a safe, politically stable and well-organized Nordic society. Finland is consistently ranked high in quality of life and was just listed again as the happiest country in the world: <https://worldhappiness.report/news/its-a-three-peat-finland-keeps-top-spot-as-happiest-country-in-world/>

For more information about living in Finland: <https://www.aalto.fi/en/careers-at-aalto/living-in-finland> & <https://www.aalto.fi/en/services/welcome-to-aalto-university-and-finland-info-package>

Contact Information

Please reference Academickeys in your cover letter when

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applying for or inquiring about this job announcement.

Contact

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