



Tenure Track Professor in AUTONOMOUS SYSTEMS AND ROBOTICS



Aalto University



Aalto University

Aalto University is a multidisciplinary community of bold thinkers where science and art meet technology and business.

Aalto University is a university where research, art and education are promoted hand in hand. We are committed to **identifying and solving grand societal challenges** and building an innovative future.

With high-quality research we aim at creating significant impact on the international scientific community, industry and business, as well as the society at large. Disciplinary excellence is combined with **multidisciplinary** activities, engaging both students and the local innovation ecosystem.

Aalto has with nearly 11 000 students and more than **six schools** an 400 professors. We are an international community: more than 40% of our academic personnel have an international background.

Aalto University was **founded in 2010** as three leading Finnish universities, Helsinki University of Technology, the Helsinki School of Economics and the University of Art and Design Helsinki, were merged. Our campuses are located in Espoo and Helsinki, Finland.

The University campus in Espoo is developing into a unique, open innovation hub and a center of collaboration that attracts partners from all around the world. It encourages sharing of ideas, inter-disciplinary encounters, creativity, growth and entrepreneurship. The core of the campus will be a vibrant city with versatile services and attractive places to meet.



Aalto University

More info at
aalto.fi

A photograph of two men in white lab coats in a laboratory setting. The man on the right is holding up a small, dark, rectangular device with yellow wires attached. The man on the left is smiling. The background is a dark, textured wall, possibly an anechoic chamber.

School of Electrical Engineering

At the School of Electrical Engineering, science and engineering meet society.

Our portfolio covers fields from natural sciences to engineering and information sciences. In parallel with basic research, we develop ideas and technologies further into innovations and services. We are **experts in systems science**: we develop integrated solutions from care of the elderly to space robotics.

Our school has about **2000 students**, approximately 50 doctor's and about 250 master's degrees are completed annually. There are **600 members of academic staff** at the School, of which 60 are professors.

The School's **five departments** cover the fields of electronics, communications and automation. Special fields include automation and systems technology, electronics and information technology, power engineering, communications engineering and bioinformation technology.

The novel research results and systems solutions require committed researchers, hard-working students, modern research infrastructure, and an excellent support organization. Our international and close-knit community is one of our strengths.

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Aalto University
School of Electrical
Engineering

More info at
elec.aalto.fi



Department of Electrical Engineering and Automation

Research and teaching

The Department of Electrical Engineering and Automation (EEA) of the Aalto University School of Electrical Engineering is an ecosystem where scientists and engineers from different fields interact and work together by crossing over traditional boundaries to solve the most challenging scientific and technological problems, to provide excellent education and to produce wellbeing for the society.

EEA is an academic community of approximately 160 employees and 23 professors. Talented scholars can conduct their own independent research on topics related to our areas of inquiry. The department has over 60 students pursuing Doctor of Science in Technology and 39 senior research and teaching staff members.

Research

Research in EEA is organized in four focus areas, Power systems and conversion; Control, robotics and autonomous systems; Well-being and smart living environment; Industrial electronics and informatics. Because of the interdisciplinary nature, the department partner network covers a large share of Finnish and international industries from the energy sector to manufacturing industries, including many machinery production companies, medical sector, cities and public organizations, and service providers. There have been several spin-off companies utilizing the research results.

Within autonomous systems and robotics, current lines of research at EEA include field robotics, robotic instruments, service robotics, factory automation and networked control. Aalto is currently establishing a university wide center for autonomous systems to integrate knowledge across Schools to create next generation of autonomous systems.

Teaching

The Department conducts research and provides education in bachelor, master's and doctoral programmes. The programs relevant for this professor positions are Bachelor program in Automation and Systems technology and Master's program in Automation and Electrical Engineering, which includes a major in control, robotics and autonomous systems engineering. It provides a strong basis in control engineering and automation, allowing a student then to specialize in a particular area of interest such as factory automation, robotics, smart systems, or industrial software systems,

<https://into.aalto.fi/display/enaee/Automation+and+Electrical+Engineering>

More info at
<http://ele.aalto.fi/en/>



Tenure Track Professor in Autonomous Systems and Robotics

Position Description

Autonomous operation of machines is increasing rapidly in numerous applications from autonomous vehicles to service robots. The operational environment of such systems is complex, such that key subsystems include perception, planning and control.

To design and implement such complex systems one has to understand the underlying interplay between the hardware and physical world, and the available computation, communication, and control resources

We are seeking outstanding individuals who have shown potential of excellence in addressing one or more challenges in robotics and autonomous systems. The excellence may be demonstrated in a particular application area or by addressing a particular issue in a more general context. We expect the successful candidate to demonstrate research results through experimental verification and/or real-world applications.

As a tenure-track faculty member, you are expected to complement the expertise of the current faculty by bringing new ideas and perspectives into our community. You are also expected to teach autonomous systems and robotics topics, with the typical teaching load of two courses per year.

The position will be filled preferably at the Assistant Professor level. The position will be located at the Aalto University Otaniemi Campus.

Your experience and ambitions

We are looking for applicants with

- A doctorate in robotics, automation, control engineering, electrical engineering, computer science, or another applicable field
- A proven ability and passion to carry out high-quality research and publish in top venues of the discipline
- Potential to attract research funding and build up your own research group
- An interest to collaborate with industry
- Ability to build a high-level international collaboration network
- Motivation to teach at undergraduate and/or graduate levels

More information

To learn more of the position or the research environment, please contact Professor Jorma Kyyrä, Jorma.kyyra@aalto.fi
+358 50 563 9146

More info at
aalto.fi/openpositions



Working at Aalto University

Why join us?

Established in 2010 as a merger of three leading Finnish Universities, we are both **challenger of the old, and traditional with strong history** and legacy.

Our unique combination of fields in **art and design, technology and business enable multidisciplinary** and finding clever solutions for the world's most wicked problems in the interfaces of these fields.

We aim for **societal impact**, educating game changers to drive sustainability.

We enjoy working at our evolving **collaborative campus close to the heart of Helsinki**, with good connections, great architecture and amazing nature.

We are **international and diverse**: more than 35 % of our faculty comes from outside of Finland. Our working environment is multicultural, widely English-speaking and its easy to settle in, wherever you come from.

We have strong **[academic standing and reputation in our key fields](#)** – Aalto University is among top 10 of New Universities in the world (QS ranking).

Our **well-functioning and fair Tenure Track career system** enables building a successful academic career, providing support for fulfilling your professional ambitions.



Living in Finland

Finland is [among the best countries in the world](#) according to many quality of life indicators, including being the [happiest country in the world \(UN study 2018\)](#).

We are humble people, but dare to say we have **one of the most advanced education systems in the world.**

The Nordic values of **equality and co-operation** are rooted deeply into our society. We are one of the world's top countries in press freedom and consider the many voices in our society a strength.

With high investments in R&D, a strong innovation culture, open data and advanced state of digitalization, we are a nation of **innovation and entrepreneurship.**

Gender equality, flexibility and low hierarchy are at the core of our **Nordic working environment.** Professional ambitions can be combined with a fulfilling personal life.

We are one of the world's most **reliable and stable** nations with low levels of corruption and high level of safety. We are proud to provide exceptionally high standards of social security and healthcare, financed by the state.

Having four distinct seasons, clean air and thousands of lakes, we are some nature-loving people and take good care of our **unique environment.** We enjoy our midnight sun in the summer and northern lights in the winter.

Finnish language is known to be a bit on the complicated side, but don't worry, we Finns are fluent in English, and have an **international mindset.**

We have **wide and reliable transport networks**, with Helsinki airport serving over 100 direct destinations. The comprehensive public transport makes it easy to commute. Our campus is situated within a 10 minute metro ride from the heart of Helsinki.

Want to live in the best country in the world?

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More about [Espoo](#)

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finland.fi

**Aalto University –
a community of
game changers**
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