Assistant Professor in Integrated Circuits for Sensing Applications
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 six schools with nearly 11,000 students and more than 400 professors. We are an international community: more than 30% of our academic personnel are international.

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.

More info at aalto.fi
The School of Electrical Engineering is one of the six schools of Aalto University. 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.

The School is an international unit with close to 60 professors and 2 000 full-time students, including over 200 doctoral students.

Our research focuses on major societal issues, such as energy and environment, information and communication technologies as well as health and wellbeing.

The research focus areas are:
- Energy and environment
- ICT
- Micro and nanotechnology
- Health and wellbeing

We have deep industry-academia relationships both in research and teaching.

More info at elec.aalto.fi
Research and teaching

The Department of Electronics and Nanoengineering conducts research and arranges related courses in the fields of electromagnetics, micro and nanotechnology, radio engineering, and space technology.

The department excels in the research of microelectronic circuit design, microwave engineering and components for optics and electronics. The research in the department covers the frequency spectrum from DC to THz, and the target applications range from sensors and telecommunications to space instruments.

**Research Groups in Microelectronics and Microwave engineering**
The department’s research groups are dedicated to top leading edge research in microelectronics. The research fields include sensor interface electronics, energy harvesters, RF/MM/analog/DSP ICs for wireless, radars, antennas and related electronics.

The department research groups have active national and international collaboration with several institutes and companies.

**Facilities**
The department has various state-of-art measurement facilities.

The main research infrastructure related to this tenure track position is Aalto-Electronics-ICT, which offers wide variety of measurement equipment for measurement of complex electronics and wireless devices. The equipment ranges from DSP and DC analyzers to THz network analyzers and anechoic chambers.

The department also has cutting-edge design tools, comprehensively including IC technology design kits, EM simulators and DSP design tools.

**Personnel**
The Department employs 19 professors, 12 senior research and teaching staff members and over 60 doctoral students.

Assistant Professor in Integrated Circuits for Sensing Applications (Tenure Track)

Position Description
We are looking for an Assistant Professor in the broad area of integrated circuits, especially focusing on complex sensor ICs and system concepts. You will complement our department’s current expertise in integrated circuit design by bringing fresh, new research ideas and perspective into our community of microwave engineering, mixed mode circuits and sensor interface electronics.

This position provides you with an excellent opportunity to conduct state-of-the-art hands-on IC research with modern technologies and excellent infrastructure enabling IC measurements from DC to THz.

Your experience and ambitions
You have
• Doctorate in electrical engineering or related field
• Expertise in one of the following IC design sub-fields: sensors and sensor interface electronics, energy harvesting, imaging, health and wellbeing, microwave engineering
• Potential to carry our high-quality research in collaboration with industry
• Motivation to develop yourself in teaching at the undergraduate and/or graduate level

Research Environment
Our researchers in IC design work in close collaboration with several national and international leading research institutes and companies in sensor interface electronics, energy harvesters, RF/MM/analog/DSP ICs for wireless, radars, antennas and related electronics.

The department has excellent measurement facilities. The main research infrastructure related to this position is Aalto-Electronics-ICT, which offers wide variety of measurement equipment for the measurement of complex electronics and wireless devices. The equipment ranges from DSP and DC analyzers to THz network analyzers and anechoic chambers. The department also has cutting-edge design tools, comprehensively including IC technology design kits, EM simulators and DSP design tools.

More information
To learn more of the position or the research environment, please contact

Professor Jussi Ryynänen
(jussi.ryynanen(at)aalto.fi)
tel. +358- 50 384 1720

Aalto Tenure Track
This position belongs to Aalto tenure track system and offers a well-supported and clear career path for professor-level academics towards a permanent professorship. The University provides a research start-up fund and we actively assist new professors to apply for available scientific research funds.

More info at
https://www.aalto.fi/careers/assistant-professor-in-integrated-circuits-for-sensing-applications-tenure-track
Living in Finland

Finland is a great environment for innovation and entrepreneurship.

Finland has a high-class education system. We value equality, co-operation, free speech and free press. Low level of hierarchy, investments in R&D, a strong innovation culture and a high number of patents per capita are just some of the characteristics of our society. Gender equality, open society and low levels of corruption make Finland a very attractive country for researchers, innovators, and professionals worldwide.

Cleanliness, close relationship with nature, high level social security and services, and original and versatile cultural life attract people from all over the world to join our community and appreciate Finnish standards of living.

More info at finland.fi
Aalto University – a community of game changers
aalto.fi