Professor in Circuits and Systems for Neural Engineering
KU Leuven

Job Title	Professor in Circuits and Systems for Neural Engineering
Department	Department of Electrical Engineering - Faculty of Engineering Technology https://www.esat.kuleuven.be/stadius/
Institution	KU Leuven Leuven, , Belgium
Date Posted	Jul. 15, 2025
Application Deadline	Oct. 7, 2025
Position Start Date	Sep. 1, 2026
Job Categories	Assistant Professor Associate Professor Professor
Academic Field(s)	Electrical and/or Electronics
Job Website	https://www.kuleuven.be/personeel/jobsite/jobs/60458319?lang=en
Apply Online Here	https://webwsp.aps.kuleuven.be/esap/public/ui5_ui5/sap/zh_erc_esol_go/index.html?sap-ui-language=EN&vacaturenummer=60458319&toepassing=HVY
Apply By Email	

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Job Description

KU Leuven has a full-time academic vacancy in the area of circuits and systems for neural interfaces or neuro-inspired hardware at the Group T Leuven campus. We are looking for internationally oriented candidates with a solid research record and with educational competencies within the field of electrical and electronics engineering, strongly focused on interdisciplinary collaboration with stakeholders in the relevant sectors (e.g. healthcare, robotics, sensing technology), depending on the research themes of the candidate.

The successful applicant will be appointed in the ESAT-STADIUS Research Unit (STADIUS Center for Dynamical Systems, Signal Processing and Data Analytics) (www.esat.kuleuven.be/stadius/) in the research Department of Electrical Engineering (ESAT) (www.esat.kuleuven.be) of KU Leuven (www.kuleuven.be), joining the research activities of 16 professors and around 100 PhD and postdoctoral researchers. Originating from a circuits and systems tradition, academic research in ESAT-STADIUS is now focused on mathematical engineering, where mathematical tools from numerical linear and multi-linear algebra, statistics and optimization are used for applications of dynamical systems and control, signal processing, data modeling and analytics. ESAT-STADIUS offers recognized expertise in diverse application fields such as industrial automation, audio and speech communication, digital communication, biomedical signal and data processing, and bio-informatics.

The new professor will also become a member of the educational Faculty of Engineering Technology that offers academic yet implementation-oriented engineering programs at seven campuses across Flanders. Main teaching duties will be situated at Group T Leuven Campus (https://www.kuleuven.be/grouptcampus), an international and entrepreneurial engineering campus in Leuven city centre. Each year more than 2200 students enrol at the campus in Bachelor and Master in Engineering Technology programs that are offered in both English and Dutch.

The successful applicant will join the eMedia Research Lab (https://iiw.kuleuven.be/onderzoek/emedia), a cross-departmental research lab located at the Group T Leuven campus and consisting of researchers from ESAT-STADIUS and Computer Science. The eMedia Research Lab investigates, develops and implements novel techniques to enhance the human condition with embodied media. The systems investigated contain sensors that capture input from a human user or information from the environment, algorithms that analyze these data, and intelligent systems with actuators that generate meaningful output. Applications are found in the domain of healthcare, learning, arts and entertainment. The research topics related to the ESAT-STADIUS

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members of the eMedia Research Lab consist of embedded system design, audio engineering, signal processing, machine learning and biomedical data analysis.

The faculty, department, and campus can build upon solid research infrastructures, extensive international networks, connections with companies and non-profit organisations, a stable offer of talented PhD students, and a supportive work environment.

RESEARCH

- You develop a research program at an international level in the design and implementation of electronic circuits and systems with a focus on neural interfaces (brain-machine interfaces) or neuro-inspired (neuromorphic) hardware for other application domains. Candidates should have a research track record with proven expertise in electronics design, both on a circuit level (e.g. covering aspects such analog lumped-element circuit modelling and simulation, PCB design) and on a system integration level (e.g. covering aspects such as interfacing, analog-to-digital conversion, sensor signal conditioning), preferably in a context of neural interfaces or event-based (neuromorphic) designs. Candidates should ideally have experience in the application and valorisation of their research work and contribute to interdisciplinary collaborations in these areas.
- You will establish a research program founded on innovative thinking and scientific excellence, seeking complementarity with the expertise on dynamical systems and control, signal processing and data science that is currently available in the research division. You engage in targeted scientific research, resulting in PhD s and publications that meet international standards and lead to broad international recognition. You are able to acquire competitive funding, both project-based government funding as well as industrial funding.
- The envisaged research program will also involve application-oriented research and research valorization activities in the application domains within the scope of the research division. As part of your research program, you will develop international partnerships, within the academic world as well as with end-users and industrial partners.

TEACHING

- You provide high-quality education for both bachelor and master students in the field of electrical and electronics engineering, with a clear commitment to the quality of the programme as a whole. You are enthusiastic about next-generation engineering education and are willing to evolve throughout your career towards substantial educational engagements, including also basic courses at undergraduate level. Teaching activities will include the development and coordination of coursework in the domain of electrical engineering, such as for example electronics, electronic design, sensor systems, and sensors and circuits for healthcare applications.

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- You contribute to the faculty's and the university's pedagogical project through the supervision of student projects (for example bachelor's and master's theses) and by acting as a promotor of PhD students.
- You develop your teaching in accordance with KU Leuven's views on activating and researched-based education and make use of the possibilities for educational professionalization offered by the faculty and the university.

SERVICE

Next to research and teaching, we value service to the scientific community (e.g., by carrying out editorial and peer review work and organising dissemination events), service to society (e.g., by participating in outreach events and societal debate), service to industry (e.g., through valorisation-oriented consultancy projects) and service to the university (e.g., by taking an active role and responsibility in internal committees).

PROFILE

- You have a PhD in Electrical or Electronics Engineering or an equivalent degree.
- You have a strong research track record in the discipline, evidenced by your publications or by your research experience in industry. You have the ambition to contribute to the valorisation of research in industry and in society. International experience is an important advantage.
- You have verifiable qualities related to academic education. Teaching experience is an advantage. Sufficient knowledge of Dutch is a plus.
- You possess organisational skills and have a cooperative attitude. You are a strong communicator and know how to motivate people.
- Proficiency in English is required. KU Leuven provides courses in academic English.
- The official language used at KU Leuven is Dutch. If you do not speak Dutch (or do not speak it well) at the start of employment, KU Leuven will provide language training to enable you to take part in meetings and to acquire the level of Dutch that is required for tenure.
- Before teaching courses in Dutch or English, you will be given the opportunity to learn Dutch, respectively English, to the required standard.

OFFER

- We offer full-time employment in an intellectually challenging environment.
- KU Leuven is a research-intensive, internationally oriented university that carries out both fundamental and applied scientific research. Our university is highly focused on interdisciplinary and multidisciplinary research and strives for international excellence. In this regard, the

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university actively works together with research partners in Belgium and abroad and provides its students with an academic education that is based on high-quality scientific research.
- You will work at KU Leuven Group T Campus, in a historic, dynamic and lively city located in the heart of Belgium, within 30 minutes from Brussels, the capital of the European Union, and less than two hours from Paris, London and Amsterdam.
- Depending on your record and qualifications, you will be appointed to or tenured in one of the grades of the senior academic staff: assistant professor, associate professor, professor or full professor. In principle, junior researchers are appointed as assistant professor on the tenure track for a period of 5 years. At the end of this period and a positive evaluation, they are permanently appointed (or tenured) as associate professor.
- To facilitate scientific integration and research in the first phase, a research position equivalent to a PhD fellowship for 4 years is made available. You can also apply for a start-up grant of EUR 110,000. (offered to new professors, appointed for at least 50%.)
- KU Leuven is well set to welcome foreign professors and their family and provides practical support with regard to immigration & administration, housing, childcare, learning Dutch, partner career coaching,...

INTERESTED?

For more information on the contents of the job, please contact:

- Prof. dr. ir. Vincent Rijmen, Department Chair of Department of Electrical Engineering (vincent.rijmen@kuleuven.be, +32 16 32 10 68)
- Prof. dr. ir. Toon van Waterschoot Campus Chair of Group T Leuven Campus (toon.vanwaterschoot@kuleuven.be, +32 16 32 17 88

Indicative date of interview: 16 December 2025.

Add to your application following documents in English (more information is available on the KU Leuven job site):

- your biosketch in which you indicate your added value as an academic for research, education and service to society of your past career and of your future activities (maximum 2 pages);
- a file on your five most important publications or realizations;
- an extensive cv including a full publication list and if applicable a portfolio of your architectural projects;
- your research plan with focus on the development of your research line and research team in relation with the colleague-researchers of the entity of employment (maximum 4 pages);

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- your vision on academic education and its organization (maximum 2 pages);
- your contribution to society by outreach and public communication on science and technology, internal representation in boards and councils and service activities directly in relation to your developed expertise (maximum 1 page);
- your vision on leadership (maximum 1 page).

If you have problems submitting your application online, please send an email to solliciteren@kuleuven.be.

KU Leuven places great importance on research integrity and ethical conduct and will therefore ask you to sign an integrity statement upon appointment.

You can apply for this job no later than October 07, 2025 via the online application tool

EEO/AA Policy

KU Leuven strives for an inclusive, respectful and socially safe environment. We embrace diversity among individuals and groups as an asset. Open dialogue and differences in perspective are essential for an ambitious research and educational environment. In our commitment to equal opportunity, we recognize the consequences of historical inequalities. We do not accept any form of discrimination based on, but not limited to, gender identity and expression, sexual orientation, age, ethnic or national background, skin colour, religious and philosophical diversity, neurodivergence, employment disability, health, or socioeconomic status. For questions about accessibility or support offered, we are happy to assist you at hr.diversiteit@kuleuven.be

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact Professor Toon Van Waterschoot, Campus Chair
Group T Leuven

Professor in Circuits and Systems for Neural Engineering
KU Leuven

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