Professor in perceptual AI for autonomous mobility (95% - temporary for 5 years)
KU Leuven

Job Title	Professor in perceptual AI for autonomous mobility (95% - temporary for 5 years)
Department	Department of Electrical Engineering
	https://www.esat.kuleuven.be/english/overview
Institution	KU Leuven
	Leuven / Heverlee, , Belgium
Date Posted	Feb. 20, 2024
Application Deadline	Open until filled
Position Start Date	Sep. 1, 2024
Job Categories	Research Professor
	Professor
Academic Field(s)	Computer/Information Sciences
	Sciences - General
Apply Online Here	https://webwsp.aps.kuleuven.be/esap/public/ui5_ui5/sap/zh_erc_esol_go/index.html?sap-ui-language=EN&vacaturenummer=60293385&toepassing=HVY
Apply By Email	
Job Description	

In the Science, Engineering and Technology Group of KU Leuven, Faculty of Engineering Science, Department of Electrical Engineering (ESAT), Campus Arenberg, there is a part-time (95%) academic vacancy for a professor for a period of 5 years (extendible) in the area of perceptual AI for autonomous mobility. This area is interpreted broadly, covering autonomous cars and other vehicles, autonomously flying UAV's, self-navigating ships, etc. The successful candidate will be a member of the Department of Electrical Engineering (ESAT) within the research division PSI (Centre for the Processing of Speech and Images), which has a broad expertise in speech and image processing.

We are looking for an internationally oriented candidate with excellent experience in one or more of the subfields of the abovementioned research domain. Ideally, the candidate has already managed a research group in this field and she/he has an international network of relevant contacts for the research. As evidence of the practical relevance of the conducted research, an effective collaboration with private corporations is recommended; having worked for a private company is therefore seen as a plus. Also the (industrial) valorisation of the research is considered to be important; experience in setting up a start-up is a plus in this context.

Candidates are expected to develop an applied research programme that integrates well with the current research activities of the research group and the Department, as well as a valorisation strategy that can leverage on the track record and best practices of the group. Candidates also have to contribute to academic education at bachelor and master level, and must also be prepared to provide scientific services both within and outside the university.

HTTPS://www.esat.kuleuven.be/psi

Duties

Research
We are looking for a candidate with demonstrable expertise in the field of perception platforms for autonomous mobility, with a focus on computer vision and AI-based solutions. This broad area includes foundations, techniques and supporting tools to create and improve software and systems that deliver high-quality properties in terms of security and reliability. Candidates must show a track record with excellent research results and practical implementations on topics within this domain, including but not limited to:
? The fast detection of objects and their semantic identification in an environment.
? The visual tracking of objects in the 3D environment of the platform.
? The definition of free versus avoidable regions for mobility. For the case of vehicles this includes the detection of lane markings.

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? The estimation of distances based on one or multiple sensors.
? Guaranteeing continuity through the integration of information from multiple sensors through time ("sensor fusion").
? Combining multiple subtasks through compact and powerful multi-task learning architectures and other software pipelines.

As a faculty member, you are expected to develop and present a research program at international level in the abovementioned area of perceptual AI for autonomous mobility, with a focus on computer vision applications. In addition, you are expected to develop and deploy a valorisation program that addresses applied research in collaboration with industry, through contract research, when feasible, and/or the inception of start-ups. Also, you create a point of contact for the industry in the area of AI for computer vision.

You are expected to collaborate with colleagues within the ESAT-PSI research division, both on the Arenberg and the De Nayer campuses, and within the Department in a broader sense in order to strengthen existing programs and start new projects, and to drive promising results towards valorisation paths.

You are expected to publish at the highest scientific level, to acquire competitive funding and to supervise postdocs, PhD students, senior researchers and system engineers at international level.

Teaching
? You contribute to high-quality education within the domain of computer vision and AI in bachelor and/or master programmes at the Faculty of Engineering Science and the Faculty of Sciences at KU Leuven, with a clear commitment to the quality of the programme as a whole.
? You should have evidence of experience with teaching at academic level.
? You also contribute to the Faculty's and the University's pedagogical project by guiding master's theses and by supervising PhD students.
? You develop your teaching in accordance with KU Leuven's views on activating and research-based education, and make use of the possibilities for educational professionalization offered by the Faculty and the University.

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Service
? You are prepared to provide scientific, societal and internal services.
? You play an active part in profiling the Department towards (potentially) new students and towards the wider professional field by participating in open days, networking events, fairs, etc.
? You maintain good contacts with KU Leuven Research and Development (LRD) and support them also in their networking and valorisation initiatives.

Profile
? You have a PhD in Engineering Science in the field of Electrical Engineering. You have a strong track record in research in the field of autonomous mobility in a broad sense, and in computer vision and AI techniques for this field in particular.
? You have a strong research profile and have international research experience. The quality of your research is proven by publications in leading international journals and conferences in the field.
? You have demonstrable qualities related to academic education. Academic teaching experience is a must.
? You possess organizational skills and have a collaborative attitude. You have already led a research group.
? Proficiency in English (preferably C1 level) is required.
? The official administrative language used at KU Leuven is Dutch. If you do not speak Dutch, or not sufficiently, at the start of your employment, KU Leuven will provide language training to enable you to reach the level B2 allowing you to take part in meetings, and thereafter level C1 in order to teach courses in Dutch.

Offer
? We offer a part-time employment (95%) for a period of 5 years (extendible) in an intellectually challenging environment.
? KU Leuven is a research-intensive, internationally-oriented university that offers the opportunity to conduct both fundamental and applied scientific research. It strives for international excellence and thereto collaborates actively with academic and industrial research partners in Belgium and abroad. It offers its students an academic education that is based on high-quality scientific research.
? You will work in Heverlee near Leuven, a historic, dynamic and lively city located in the heart of Belgium, within 20 minutes from Brussels, the capital of the European Union, and less than two hours away from Paris, London and Amsterdam.
? KU Leuven is well set to welcome foreign professors and their family and provides practical support with regard to immigration and administration, housing, childcare, learning Dutch, partner career coaching, etc.
? Depending on your record and qualifications, you will be appointed for 95% in one of the grades of

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the academic staff: assistant professor (tenure track), associate professor, professor or full professor (95%).
? To facilitate scientific onboarding and accelerate research in the first phase a starting grant of 110.000 euro is offered to new professors without substantial other funding, appointed for at least 50%.
? The appointment starts on September 1, 2024.

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

Prof. dr. ir. Luc Van Gool, chair of the computer vision research group within ESAT-PSI (luc.vangool@kuleuven.be)
Prof. dr. ir. Georges Gielen, chair of the Department of Electrical Engineering (ESAT) (georges.gielen@kuleuven.be)

You can submit your application only through our online application system. If you have problems submitting your application online, please contact solliciteren@kuleuven.be
As part of your application, we expect the following documents (in English):
· 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;
· your research plan with focus on the development of your research line and research team in relation to the colleague-researchers of the entity of employment (maximum 4 pages);
· 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).

You can apply for this job no later than March 14, 2024 via the online application tool :
http://www.kuleuven.be/eapplyingforjobs/60293385

EEO/AA Policy

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KU Leuven is committed to creating a diverse environment and is therefore an equal opportunity employer. It explicitly encourages candidates from groups that currently are underrepresented at the university to submit their applications. KU Leuven places great importance on research integrity and ethical conduct and will therefore ask you to sign an integrity statement upon appointment. KU Leuven seeks to foster an environment where all talents can flourish, regardless of gender, age, cultural background, nationality or impairments. If you have any questions relating to accessibility or support, please contact us at diversiteit.HR@kuleuven.be.

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 this email address. https://www.kuleuven.be/wieiswie/nl/person/ue711656

Contact Information

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

Contact   Prof. Dr. Luc Van Gool
Department of Electrical Engineering
KU Leuven
Leuven / Heverlee
Belgium

Contact E-mail   luc.vangool@kuleuven.be