

Professor

Ecole/Institution/Société:

Vrije Universiteit Brussel, Belgium / Brussels

Discipline:

Electrical Engineering

Type d'emploi::

Full-time

Date de publication:

2025-02-23

Personne à contacter:

If you wish to apply for this position, please specify that you saw it on AKATECH.tech

Tenure Track professor (research) "Sector Integration of Electric Mobility and Energy Systems

1 - Working at the VUB

For more than 50 years, the Vrije Universiteit Brussel has stood for freedom, equality and solidarity, and this is very much alive on our campuses among students and staff alike.

At the VUB, you will find a diverse collection of personalities: innovators pur sang, but above all people who are 100% their authentic selves. With some 4,000 employees, we are the largest Dutch-speaking employer, in the private sector, in Brussels; an international city with which we are only too happy to connect and where (around) our 4 campuses are located.

Add to this our principle of free research - in which self-reflection, a critical attitude and an open, creative mind around scientific and social issues are central - and you have a university that is fundamentally groundbreaking and pioneering in education and research. In short: the VUB all over again.

Moreover, the VUB is a member of EUTOPIA, an alliance of like-minded European universities, all ready to reinvent themselves.

2 - Position description

The Faculty of Engineering, Department Electrical Engineering and Energy Technology, is looking for a tenure track lecturer.

More concretely your work package contains:

Education and Research domain:

Electrical Engineering and Energy Technology: Sector Integration of Electric Mobility and Energy Systems

Education tasks:

You will be responsible for teaching at the Bachelor's and Master's level.

You are a proficient teacher, capable of transferring knowledge in an inspiring way, adapting to your audience, and being empathetic towards students.

You will organise courses across several programmes, such as in the Electromechanical Engineering Master's programme, and the Bachelor's programmes in Engineering.

Your teaching tasks will primarily focus on research during the initial years of the Tenure Track, with a limited teaching load. Educational tasks will largely involve preparing (a) new course(s) in the domain of Sector Integration of Electric Mobility and Energy Systems.

Additionally, you will lecture in existing departmental courses, such as "Electric and Hybrid Vehicle Traction", "Sustainable Transitions" and "Renewable Energy Technologies".

You will supervise students working on their Master's theses

Research tasks:

You will lead and conduct research related to Electric Mobility and Energy Systems.

Your responsibilities include drafting and securing research grants. You will develop and execute a fundraising strategy to establish an autonomous research team (including PhD and postdoctoral positions). The strategy should cover various technology readiness levels (TRLs), from fundamental and strategic basic research, to applied research and valorisation, tapping into European, national, and regional funding opportunities as well as direct industry contracts.

You will lead a team of researchers and integrate your activities within the MOBI Electromobility Research centre.

You will explore ways to valorise research results and define intellectual property strategies.

You will develop simulation, design and evaluation frameworks to analyse the technical, economic and environmental impact of integrated (renewable) mobility and energy systems. This includes modelling electric mobility components (vehicles, charging systems, etc.) and of multi-energy systems as well multi-scale perspectives and holistic methodologies for techno-economic design and

evaluation.

You will create intelligent management and control techniques for charging and discharging (vehicle-to-x) electric vehicles, ensuring synergetic integration into the energy system while considering mobility and transport requirements. The techniques must incorporate artificial intelligence, machine learning or metaheuristic optimization methods to address real-world challenges in the combined transport-energy system.

You will supervise and coach PhD students in their thesis preparation.

Other tasks:

You will contribute to administrative and management tasks, including participation in supporting the functioning of the department and the faculty.

You will strengthen the MOBI research group's European and national networks through active engagement.

You will disseminate research findings to the scientific community via publications and conference and engage in societal outreach through events, media appearances and popular science publications.

For this function, our Brussels Humanities, Sciences & Engineering Campus (Elsene) will serve as your home base.

3 - Profile

What do we expect from you?

You have a degree in academic engineering or a Master of Science in electromechanical, energy or automotive engineering as well as a PhD in a related field.

You have at least three years of experience as a postdoctoral researcher and project manager.

You have deep domain expertise in electric mobility and energy, demonstrated by a proven research track record. Proficiency in modelling, optimization and control techniques, with applied AI knowledge.

You show a strong track record of securing research funding and familiarity with the European and national funding landscape.

You have demonstrable leadership experience, having supervised at least one PhD-student.

You show a collaborative mindset, with eagerness to strengthen ties among teams, research groups, and external partners at both national and international levels.

You have an established network within the electric vehicle and energy industry.

You subscribe to the university's vision of education. The full text in relation to this is available on

the university website.

Every first appointment is dependent upon the successful delivery of a teaching session.

Language regulations:

A member of the academic staff who is entrusted with a teaching assignment must also be able to demonstrate that the language of instruction is known at ERK level C1 through a qualification certificate or through an adequate diploma. The VUB also provides courses in, for example, academic English.

The administrative language of the VUB is Dutch. In case of insufficient knowledge of Dutch, the VUB will provide an integration course. After a maximum of five years, a member of the academic staff must demonstrate adequate knowledge of the administrative language (ERK level B2).

For a complete overview, please consult the complete language regulations on <https://jobs.vub.be/content/Regulations-concerning-language-proficiency/>.

Certificates demonstrating knowledge of the language can already be added to the application.

The VUB wants to be a reflection of the society where everyone's talent is valued, regardless of gender, age, religion, skin color, migration background, disability and neurodiversity.

4 - Offer

Are you going to be our new colleague?

You'll be offered a tenure track appointment, for an assignment of 1 FTE, for 5 years, with eligibility for tenure in the rank of senior lecturer by the end of this initial period, with planned starting date 01/10/2025.

You'll receive a salary linked to one of the scales set by the government.

At the VUB, you're guaranteed an open, involved and diverse workplace where you are offered opportunities to (further) build on your career.

As well as this, you will also enjoy various other benefits:

Extensive homeworking options, a telework allowance of 50 euros per month OR an internet fee of 20 euros per month;

An open and informal working environment where attention is paid to work-life balance, and exceptional holiday arrangements with 35 days of leave (based on a fulltime contract), closure between Christmas and New Year and 3 extra leave days;

Cost-free hospitalisation insurance;

Full reimbursement of your home-to-work commute with public transport according to VUB-policy, and/or compensation if you come by bike;

A wide selection of meals in our campus restaurants at attractive prices;

Excellent and affordable facilities for sport and exercise, a range of discounts via Benefits@Work (in all kinds of shops, on flights, in petrol stations, amusement parks...) and Ecocheques;

Nursery near campus, discount on holiday camps;

The space to form your job content and to continuously learn through our VUB learning platforms and training courses;

And finally: great colleagues with a healthy drive.

5 - Interested?

Is this the job you've been dreaming of?

Then apply, at the latest on 14/03/2025, via jobs.vub.be, and upload the following documents:

your motivation letter, including your vision on education and research, and an explanation about the development of your future research;

your curriculum vitae, including you academic dossier;

your diploma (not applicable for VUB alumni) and language certificates.

Do you have questions about the job content? Contact Joeri Van Mierlo at joeri.van.mierlo@vub.be or on +32 2 629 28 03.

Would you like to know what it's like to work at the VUB? Go to jobs.vub.be, and find all there is to know about our campuses, benefits, strategic goals and your future colleagues.

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