**Assistant Professor Electrification of Transportation**

**[Specifications]**

Faculty/Department Faculty of Electrical Engineering, Mathematics and Computer Sciences | Department of Electrical Sustainable Energy

Job type Assistant Professor  
Academic Career Track

Scientific field Xxx

Hours per week XX

Salary - € X.XXX,- - X.XXX,-

Desired level of education: PhD  
Vacancy number [generated automatically]

**Challenge**: Develop innovative concepts for electric and hybrid-electric propulsion.

**Change**: Harnessing power electronics, power conversion and storage.  
**Impact**: Driving sustainable, next-generation aviation.

**[Job description]**

Cleaner air transport, shipping and mobility in general are crucial to society’s sustainability drive. But the challenges related to the electric and power electronic systems needed to electrify long-haul aviation in particular are huge. Extreme operation temperatures for wide bandgap devices, pressure at high altitudes and, of course, the stringent safety requirements must all be considered. As Assistant Professor in Electrification of Transportation at TU Delft, you will focus on developing new concepts that will substantially reduce emissions and increase efficiency in aviation, combining innovative fundamental and experimental research. Your research may even find applications in the electrification of drivetrains used in other forms of transportation.

Yours is a relatively new field of research, in which you will work closely with the Faculty of Aerospace Engineering and leading industrial partners. The research lines you will develop may range from full-electric and hybrid-electric flying to smart battery technologies and solutions for taxiing and take off. To realise your vision, you will write research proposals, for which you will attract funding. And you will build your team of PhD students, whom you will supervise to completion. You will be setting up and conducting experiments in our state-of-the-art Electrical Sustainable Power Lab. In addition, you will teach Bachelor and Master students, support them with their experiments and theses, and contribute to Faculty committees.

You will also be sharing knowledge and representing TU Delft in international networks and bodies like the Institute of Electrical and Electronics Engineers. The fifty-strong, international team of driven Assistant Professors, PhD students and postdocs of the DC systems, Energy conversion & Storage group will be your home base. Ours is a friendly, collaborative and supportive environment, in which we welcome your ideas and help you grow your academic career. We share a drive to boost electrification and are proud of TU Delft’s cutting-edge research facilities, which even include flying lab aircraft!

**[Requirements}**

You thrive on developing groundbreaking interdisciplinary research, embracing the challenges related to the electrification of aviation drivetrains. Harnessing a keen interest in interdisciplinary research and your communication skills, you convince stakeholders of your research proposals, attract funding and build relevant networks. And while growing your own skills and knowledge, you are committed to coaching and teaching students.

You also have:

* A PhD in Power Electronics and an excellent academic track record reflected by publications in leading journals.
* Knowledge of electrical drives and sustainable energy systems.
* Experience with wide bandgap devices, and preferably experience of aircraft system integration.
* Experience of designing and building power electronics constructions, converters and experimental setups.
* A good command of spoken and written English, as you’ll be working in an internationally diverse community and with international partners.

**[Conditions of employment]**

[Automatically completed by recruitment system]

**[TU Delft (Delft University of Technology)]**

[Automatically completed by recruitment system]

**[Department]**

[Automatically completed by recruitment system

**Additional information**

If you would like more information about this role, please contact please contact [name], [role], email [email address].

If you would like more information about the selection procedure, please contact [name], [role], email [email address].

**Application procedure**

To apply, please complete the application form [link] and add the following documents to your application:

1. Motivation letter.
2. Detailed CV.
3. Recent teaching evaluations (if available).
4. Teaching statement.
5. Research statement.
6. At least three relevant publications.
7. Names and contact information of at least three relevant references. We will not contact references without your consent.

Please apply before [date] 2023.

After the first selection, (video) interviews will be held on [date].

**[Metatitle]**

Assistant Professor Electrification of Transportation | TU Delft

**[Metadescription]**

Help dramatically reduce aviation emissions as Assistant Professor in Electrification of Transportation at TU Delft.

**[Intro’s social media 3x]**

Developing innovative concepts for electric and hybrid-electric propulsion, harnessing power electronics, conversion and storage in aviation. That’s your challenge as Assistant Professor in Electrification of Transportation at TU Delft. Would you like to contribute to groundbreaking research and world-class education? Apply now!

Contribute to groundbreaking research and world-class education as Assistant Professor in Electrification of Transportation at TU Delft. Your challenge? To develop innovative concepts for electric and hybrid-electric aircraft drivetrains, harnessing power electronics, conversion and storage. Check the job post and apply now!

As the aviation sector plays a key role in securing long-range mobility, reducing its emissions is crucial. Which is why you will develop research lines geared to e.g. full-electric and hybrid-electric drivetrains, harnessing power electronics, conversion and storage. Check the job post for Assistant Professor in Electrification of Transportation at TU Delft!

**[Relevante hashtags]**

#vacancy #workingatTUDelft #AssistantProfessor #TenureTrack #vacancy #Electrification #Transportation #aviation #aircraft #propulsion #drivetrains #powerelectronics #powerconversion #widebandgap #smartbattery