



Technische
Universität
Braunschweig

Institut für
Elektromagnetische
Verträglichkeit



PhD-Researcher Position within the SE²A Research Cluster

New architectures of electrical grids for electrified aircraft

Temporary Position (up to 3 years), Salary Level EG 13 TV-L, 100%

Background:

The Cluster of Excellence *SE²A - Sustainable and Energy-Efficient Aviation* is a DFG-funded interdisciplinary research center investigating technologies for a sustainable and eco-friendly air transport system. Scientists from aerospace, electrical, energy and chemical engineering as well as economics and social science are working on the reduction of drag, emissions and noise, life-cycle concepts for airframes, improvements in air traffic management and new technologies for energy storage and conversion. Technische Universität Braunschweig, the German Aerospace Center (DLR), Leibniz University Hannover (LUH), the Braunschweig University of Art (HBK) and the National Metrology Institute of Germany (PTB) have joined forces in this extraordinary scientific undertaking. The overall project is structured into the three core research areas “Assessment of the Air Transport System”, “Flight Physics and Vehicle Systems” and “Energy Storage & Conversion”. (www.tu-braunschweig.de/en/se2a)

Employment:

The position is located at the Chair for Mobile Electric Energy Systems at the Institute of Electromagnetic Compatibility (<https://www.tu-braunschweig.de/en/emv/mobile-electric-energy-systems>) in Braunschweig. The entry date is as soon as possible, and the duration is initially limited for 2 years. The position is part-time suitable, but should be occupied 100%. Active participation in SE²A's own doctoral program complementary to the programs of the institutions is an integral part of this position. The payment is made according to task assignment and fulfillment of personal requirements up to salary group EG 13 TV-L. International applicants may have to successfully complete a visa process before hiring can take place. Applications from international scientist are welcome. The Cluster SE²A aims to increase the share of women in academic positions. Applications from female candidates are very welcome. Where candidates have equal qualifications, preference will be given to female applicants. Candidates with handicaps will be preferred if equally qualified. Please enclose a proof.

Your tasks:

- Research in the field of energy systems of aircraft and publication of new research results in professional journals and at conferences
- Development of new aircraft energy system architectures
- Participation in the construction and operation of an on-board network laboratory
- supervision of student work

Who we are looking for:

- Very good or good master's degree (or comparable degree) in the fields of electrical engineering, industrial engineering, physics, computer science or mechanical engineering
- Ambitious and independent in working on research projects
- Interested in applied research
- Very good written and spoken English

In-depth knowledge in the field of energy technology as well as experience in the field of modeling and simulation of electrical systems are desirable.

Our offer

- Research freedom and at the same time support from our team
- Opportunity for a doctorate with good supervision
- Outstanding research infrastructure
- Opportunity to get involved in university teaching
- Participation in shaping the energy transition through optimizations in the transport sector

Application Process:

Applications must contain the following documents.

- Motivation Letter
- Curriculum Vitae including complete address, phone number, email address, educational background, language skills, and work experience
- Copies of bachelor and master diploma and transcript of grades in original language and in English or German translation
- Additional Documents must be provided on request

All documents should be in PDF format, preferably in a single file. Personal data and documents relating to the application process will be stored electronically. Please note that application costs cannot be refunded. For the purpose of carrying out the application process, personal data will be stored.

Applications are preferably submitted in electronic form (if possible in one PDF file) to Michael.teroerde@tu-braunschweig.de until 05.12.2022.

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