

PhD Researcher Position

Cryogenic Power Electronics for Sustainable All Electric Aircraft

(Application deadline: 15.05.2024)

What you can expect:

- Excellent research conditions for sustainable aviation
- Publishing scientific results and participation in international conferences
- Support for university teaching
- Excellent opportunity for a doctorate
- Young, motivated and dynamic team

What do you bring with you:

- Master in Electrical Engineering, specialization in power electronics preferred but not mandatory
- Ability to work in a team
- Good communication skills
- Interest in systematic work
- Flexibility and resilience

What we offer:

Salary Level up to TV-L E13,
full- or part-time



Responsible
tasks



Mentoring
program



Mobile working



Flexible working
hours



Team-oriented
work



flat hierarchies



IMAB - Institute for Electrical Machines, Drives and Traction
(www.imab.de)

Hans-Sommer-Straße 66, 38106 Braunschweig

Kontakt: Prof. Dr.-Ing. Regine Mallwitz

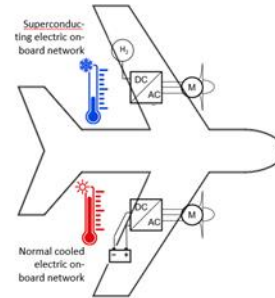
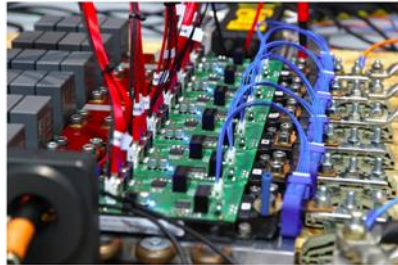
Professor Power Electronics

Tel.: + 49 (0)531 391 3913

Application and questions to: r.mallwitz@tu-braunschweig.de

About the new project:

The IMAB institute is working in several projects on sustainable and energy efficient aviation. Electrification of aviation contributes to sustainable flying, that means lower carbon footprint and less noise. We are working on topics relating to the electrification of aircraft. The new project contributes to the knowledge gained from drives and their power electronics operated at cryogenic temperatures below 80K.



The project tasks include theoretical and experimental research work for cryogenic drives and their power electronics components. The following research work will be carried out:

- Concept study for deep temperature (below 80K) power electronics solutions
- Characterization of the electrical behaviour of power electronic components
- Modeling and design of a power electronic systems operated
- Experimental verification

Experience in at least one of the areas mentioned is a prerequisite for employment:

- Characterization of power electronic devices (active or passive),
- Design of power electronic components,
- Design and implementation of power electronic systems,
- Implementation of cryogenic systems.

Further information:

The position is to be filled from 01.07.2024. The appointment is initially limited to two years. The aim is to continue employment beyond this period.

We welcome applicants of all nationalities. At the same time, we welcome the interest of severely disabled people and give preference to their applications if they are equally qualified. Please indicate this in your application and enclose proof. Furthermore, we are working to fulfill the equality mandate based on the Lower Saxony Equal Rights Act (NGG) and are striving to reduce underrepresentation as defined by the NGG in all areas and positions.

The personal data will be stored for the purpose of processing the application.

By submitting your application, you agree that your data may be stored and processed electronically for application purposes in compliance with the provisions of data protection law. Further information on data protection can be found in our data protection regulations at <https://www.tu-braunschweig.de/datenschutzerklaerung-bewerbungen>.

Application costs cannot be reimbursed.