



Technische Universität Berlin



Technische Universität Berlin offers an open position:

Research Assistant - salary grade E13 TV-L Berliner Hochschulen

part-time employment may be possible

Faculty IV - Institute of Electrical Engineering and Computer Science / Electrical Energy Storage Technology

Reference number: IV-8/25 (starting at 01/04/25 / until 31/03/28 / closing date for applications 07/02/25)

Working field:

Within a DFG project, different model-based methods for battery state estimation are to be implemented and compared. The aim is to find a method that can be simplified so that it can be implemented on typical battery management hardware, but is still sufficiently accurate. The project will be done in cooperation with Hasso-Plattner-Institut in Potsdam. Opportunity for a dissertation is given.

The tasks are the choice and implementation of model-based methods for state estimation with neural networks and equivalent circuit models with Kalman filter, data analysis for parameterisation and testing the methods on hardware.

Requirements:

- Successfully completed university degree (Master, Diplom or equivalent) in electrical engineering or related subjects
- Knowledge of Matlab / Simulink, python or similar simulation programs
- Experience with simulation of batteries
- Practical and theoretical knowledge of state estimation and ageing of batteries
- Good knowledge of German and/or English required; willingness to acquire the respective missing language skills

Desirable:

- Ability to work in a team
- Experience with machine learning and characterisation of batteries.

Please send your application with the **reference number** and the usual documents only by email to Prof. Dr. Julia Kowal at julia.kowal@tu-berlin.de.

By submitting your application via email you consent to having your data electronically processed and saved. Please note that we do not provide a guaranty for the protection of your personal data when submitted as unprotected file. Please find our data protection notice acc. DSGVO (General Data Protection Regulation) at the TU staff department homepage: https://www.abt2-t.tu-berlin.de/menue/themen_a_z/datenschutzerklaerung/.

To ensure equal opportunities between women and men, applications by women with the required qualifications are explicitly desired. Qualified individuals with disabilities will be favored. The TU Berlin values the diversity of its members and is committed to the goals of equal opportunities. Applications from people of all nationalities and with a migration background are very welcome.

Technische Universität Berlin - Die Präsidentin - Fakultät IV, Institut für Energie- und Automatisierungstechnik, FG Elektrische Energiespeichertechnik, Frau Prof. Dr. Kowal, Sekr. EN 7, Einsteinufer 17, 10587 Berlin

The vacancy is also available on the internet at <https://www.personalabteilung.tu-berlin.de/menue/jobs/>

