



Technische Universität Berlin offers an open position:

Research Assistant - salary grade E13 TV-L Berliner Hochschulen

part-time employment may be possible, under the reserve that funds are granted

Faculty III - Process Sciences - Institute of Energy Technology / Hermann-Rietschel-Institute, Energy, Comfort and Health in Buildings

Reference number: III-111/25 (starting at 01/05/25 / limited until 30/04/2028 / closing date for applications 11/04/25)

Working field:

Scientists at the Hermann Rietschel Institute have been researching the energy-efficient use of system technology in buildings and neighborhoods for 140 years. Our research profile aims to minimize the tension between the main topics:

- contamination control,
- indoor Environmental Quality (IEQ) and
- energy-efficient systems engineering in buildings and districts.

Our expertise in the development of physical and AI-supported simulation models as well as the development and maintenance of numerous test laboratories enables us to offer a range of services from basic research to prototype development.

In the research area of building energy systems, the use of renewable energies in HVAC (heating, ventilation, and air conditioning) systems is being investigated with the goal of developing recommendations and guidelines for practical applications.

This is carried out in four steps:

- reducing the required air volumes and
- lowering pressure losses,
- adapting the energy system to the temporal availability and available temperature levels and
- developing a novel control system to ensure proper operation

We are looking for you to support our team!

We need your support:

- in developing digital twins of HVAC systems,
- in conducting sensitivity and parameter studies based on the developed twin, and
- in developing an AI model for controlling renewable ready HVAC systems.

Requirements:

- successfully completed scientific university degree (Diploma, Master's, or equivalent) , preferably in building technology, data science, or a related field
- at least one of the following three key competencies:
 - system-theoretical knowledge of HVAC systems and control engineering
 - development of digital twins for HVAC systems, e.g. in Modelica
 - experience with AI methods and training unsupervised AI models based on digital twins
- good knowledge of German and/or English required; willingness to acquire the respective missing language skills

Desirable:

- high motivation and initiative
- strong teamwork and organizational skills
- strong knowledge of HVAC systems
- strong skills in data acquisition and analysis
- good programming skills (ideally in Python)
- excellent computer skills (hardware and software)
- flexibility and interest in new challenges

Your application documents can be sent by e-mail to kontakt@hri.tu-berlin.de or by post, **quoting the reference number: Technische Universität Berlin, FG Energie, Komfort & Gesundheit in Gebäuden, Prof. Dr.-Ing. M. Kriegel, Sekr. HL 45, Marchstr. 4, 10587 Berlin.**

For cost reasons, the application documents will not be returned. Please submit copies only.

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.

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

