



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, under the reserve that funds are granted

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

Reference number: III-582/24 (starting at 01/01/25 / limited until 30/04/2027 / closing date for applications 15/11/24)

Working field:

Scientists at the Hermann Rietschel Institute have been researching the energy-efficient use of system technology in buildings and neighborhoods for 125 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.

We are looking for you to support our team!

90 % of all existing buildings in Germany are currently in a refurbishable condition and have an area-specific final energy demand of more than 70 kWh/(m² a). In order to increase the renovation rate, there is still a lack of guidelines and recommendations for action that enable cost-efficient refurbishment and thus also drive private investment in energy-efficient refurbishment. In a new research project at the Hermann Rietschel Institute, we are investigating a heating system combination of a heat pump and a radiant heating, which should enable cost-effective and completely "green" heating of old buildings. In this project, your focus is on developing a control strategy that ensures energy-efficient use of the heating system by optimizing the degree of utilization.

We offer you:

- The opportunity to do a PhD
- Support with the publication of your research results in international journals
- Participation in national and international specialist conferences
- Collaboration in an interdisciplinary team

Requirements:

- Successfully completed scientific university degree in the field of building engineering or similar (Diploma, Master or equivalent)
- Good knowledge in the practical application of measurement and control and technology in the context of building energy systems
- Good knowledge in dynamic simulation modelling, ideally in Modelica
- Good knowledge in system theory in the field of control engineering modeling
- Good knowledge of German and/or English required; willingness to acquire the respective missing language skills

Desirable:

- Good knowledge in the field of data acquisition and analysis
- Good programming skills (ideally in Python)
- Very good PC skills (hardware and software)
- Experience in planning and conducting subject studies
- Flexibility and interest in new challenges
- High level of motivation and initiative
- Team and organizational skills

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/>

