



Technische Universität Berlin



Technische Universität Berlin offers an open position:

Research Assistant - salary grade E13 TV-L Berliner Hochschulen - 1st qualification phase (for doctorate)

part-time employment may be possible

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

Reference number: III-114/25 (starting at the earliest possible / limited for 5 years / closing date for applications 25/04/25)

Working field:

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

In the areas of indoor air quality and contamination control, the HRI researches energy-efficient control strategies and air distribution systems to meet the high requirements for air quality in clean rooms such as operating theatres, pharmaceutical production facilities, semiconductor industry rooms and medical technology. A central component is the risk assessment of contamination transmission through airborne aerosols in event rooms, offices, classrooms or swimming pools for various ventilation scenarios. Current research projects focus on experimental and simulative investigations into the spread of particles and the deactivation of viruses in the air.

The HRI maintains various test laboratories to investigate thermal, visual and hygienic aspects of indoor quality and their interdependence. Here, innovative measurement and control concepts for indoor climate control are developed, which aim to optimize the ratio of benefits (IEQ) to costs (energy consumption). To evaluate comfort, we rely on field tests and subject studies in test laboratories and virtual reality environments. Following the principle of "air as food", we investigate sources of contamination in indoor air as well as complex, transient indoor air flows in order to derive ventilation performance indicators and create a hygienic basis for indoor living.

Do you want to successfully complete a PhD? We are looking for you to support our team and offer you a structured PhD process!

In our current research projects, we are looking for your support in our team

- to develop valid measurement systems to determine indoor air quality,
- to develop key figures for the determining of air quality,
- to conducting experimental studies to evaluate indoor air quality,
- to communicate your research results in specialist journals, at scientific conferences and in scientific journals and
- for the development of research project proposals
- in the collaboration in research and teaching

For more information about the position, please contact us: Prof. Dr.-Ing. M. Kriegel, Tel.: +49 (0)30 314 – 24170, Mail: kontakt@hri.tu-berlin.de

Requirements:

Successfully completed scientific university degree (Diploma, Master or equivalent) in the field of building engineering or similar

- Very good scientific knowledge in the research field of air quality
- Experience in the prototypical development of sensors
- Experience in the publication of research results
- The ability to teach in German and/or in English is required; willingness to acquire the respective missing language skills

Desirable:

- High level of motivation and initiative
- Team and organizational skills
- Good knowledge in the field of data acquisition and analysis
- Very good PC skills (hardware and software)
- Flexibility and interest in new challenges

- The TU Berlin values the diversity of its members and pursues the goals of equal opportunities.

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/>

