Research Associate (f/m/d) in the Field of Energy Economics with a focus on Quantitative Modelling

Job description:
Your primary responsibility is to work on interdisciplinary research projects that focus on techno-economic analyses within the framework of sustainable energy transition. A specific emphasis of this research will be on the analysis and modeling of residential energy demand:

- Development of data-centric models, utilizing machine learning techniques, to unravel and comprehend the foundational factors shaping residential energy consumption
- Behavioral modeling of household members as a foundation for a better understanding of the transformation of household energy demand
- Focus on sector coupling between the electricity, heat and mobility sector on the residential building level
- Decentralized energy system analyses (up to the self-sufficiency of individual buildings). Optimal energy system design and operation (photovoltaic, battery, heat pump, …)
- Electric mobility (market penetration, smart charging…) including the modeling of user behavior in innovative mobility systems
- Publication of results in high class journals

The position offers the opportunity of pursuing a doctoral degree.

Personal qualification:

Required

- University degree (master or diploma) in industrial engineering, business administration, process engineering, economics, mathematics, computer science, or a comparable field of study
- Interest in performing quantitative analyses on energy topics
- Knowledge/experience in the implementation of computer-aided models, such as operations research and machine learning methods or statistical data analysis
- Professional aptitude, a high level of commitment, good self-organization and good English language skills

Desirable but not a prerequisite

- Domain knowledge
- German language skills

Our Offer:

- An attractive and modern workplace with access to excellent infrastructure at the KIT
- A self-determined and varied job, flexible working time models and the possibility of mobile work
- The opportunity to network with national and international cooperation partners in science and industry
- A wide range of further training opportunities
Salary:
Salary category 13 (TV-L E13 of the collective agreement of public service), depending on the fulfillment of professional and personal requirements.

Organizational unit:
Karlsruhe Institute of Technology (KIT)

Contract duration:
Limited to 2 years, extension possible if funding allows.

Starting date:
As soon as possible

Application deadline:
December 8, 2023

Contact person in line-management:
For further information, please contact Mr. Max Kleinebrahm (max.kleinebrahm@kit.edu).

Application:
Please apply online for the job advertisement no. 2305/2023 under: https://www.pse.kit.edu/english/karriere/joboffer.php?id=143266

We prefer to balance the number of employees (f/m/d). Therefore, we kindly ask female applicants to apply for this job. Recognized severely disabled persons will be preferred if they are equally qualified.