Technische Universität München

Lehrstuhl für Energiesysteme
TUM School of Engineering and Design
Prof. Dr.-Ing. Hartmut Spliethoff
www.epe.ed.tum.de/es

The Chair of Energy Systems seeks to fill a full-time position at the earliest possible date as a

Research Associate / PhD student (m/f/d) in the field of

Dynamic simulations and digital twins of geothermal energy systems

(heat pumps, ORC, district heating and cooling)

Your tasks: You will be working on a European Research project on future flexible geothermal energy systems. The project will develop and demonstrate innovative solutions to increase the efficiency and flexibility potential of geothermal energy. Two core technologies are reversible high-temperature heat pumps / Organic Rankine Cycles (ORC) and modern district heating and cooling networks. Your work will focus on developing digital twins of those technologies with dynamic simulations. In the next step, you will identify advanced control strategies to improve their efficiency and enhance the flexibility. Finally, you will test and demonstrate the identified advanced control strategies at a real demonstrator. As part of this four-year European project, you will work closely with partners from academia and industry. The results of your work will be published at scientific conferences and in journals.

Your profile: You have an above-average university degree with an engineering background. You gathered some practical experience with dynamic simulations and have a strong background in control engineering. You stand out for your high-quality standards and independent, solution-orientated way of working as well as your in-depth knowledge of thermodynamics and plant engineering. Do flexibility, creativity and a passion for energy technology round off your profile? Then apply for the job!

We offer you an interesting and challenging job with a high degree of personal responsibility and creative possibilities. The salary of the position is classified according to TV-L E13. It is a full-time position, which is planned for four years. The possibility of a PhD is given and highly encouraged. Disabled persons with similar qualifications will be given preference in the recruitment process. The university aims at increasing the share of female employees. Applications from qualified women are, therefore, explicitly welcomed. You can expect a team of roughly 40 scientists researching a broad range of topics on the latest technologies for a reliable and sustainable future energy supply.

Interested?

Then we look forward receiving your comprehensive application documents via e-mail by the middle of June 2024 addressed to:

Christopher Schifflechner
c.schifflechner@tum.de
Phone.: +49 89/289 16269

Technical University of Munich
Chair of Energy Sysemes,
Boltzmannstr. 15, 85748 Garching