

As of now, we are looking to extend our team with a full-time

Position as Postdoc / M.Sc. in Energy Storage

Lehrstuhl für Thermodynamik, Dept. of Engineering Physics and Computation, School of Engineering and Design at TUM

Requirements

Qualifications:

- A Master's or Ph.D. degree in energy engineering, chemical engineering, mechanical engineering, or a similar field.
- Very good German language skills.

Experience:

- Expertise in thermal energy storage technologies, including but not limited to thermodynamic analysis of energy systems, flow and heat transfer analysis, and development of thermal storage materials.

Prerequisites

- A strong background in energy storage, including system and/or materials design and applications.
- Proven experience in conducting thermodynamic analysis of energy systems with the consideration of energy storage.
- Be familiar with heat-related energy storage technologies such as molten salts, phase change materials, thermochemical storage, liquid air energy storage systems, and Carnot batteries.
- Proven experience in flow and heat transfer analysis of energy storage systems or components.
- Good experience in developing analytical models or experimental facilities.

Soft Skills:

- Be able to initiate and establish collaboration across different disciplines and with industry.
- Good time management and planning skills, with the ability to meet tight deadlines and work effectively under pressure.
- Excellent written and verbal communication and presentation skills in English and German.
- Proven ability to manage competing demands effectively, responsibly, and without close support.
- A proven ability to work well both individually and in a team.
- A strong commitment to your continuous professional development.

Tasks

- Conduct thermodynamic analysis of energy systems with the consideration of energy storage. Perform flow and heat transfer analysis of the energy storage process.
- Develop novel energy storage concepts or materials in supporting its engineering applications. Actively explore facilities available in the university to support the work to be conducted and develop the required setup at the Chair.
- Manage ongoing business relationships and explore new ones for future effective collaboration and potential funding sources.
- Perform experiments and/or drive the ongoing running, collection, analysis, and processing of experimental data.
- Produce and write high-quality research articles for leading national and international journals. Present research outcomes, applying knowledge acquired from own and collaborative research in national and international conferences and workshops.

- Support Ph.D. students in their research, participate in their supervision, and help them develop their research skills.
- Support undergraduate and postgraduate course teaching by giving tutorials, answering questions, marking homework, etc.
- Attend relevant meetings and contribute to decisions affecting the team's work.

What we offer

Payment according to TV-L West E13 in full-time (40 hours a week) for three years.

TUM has been pursuing the strategic goal of substantially increasing the diversity of its staff. As an equal opportunity and affirmative action employer, TUM explicitly encourages nominations of and applications from women as well as from all others who would bring additional diversity dimensions to the university's research and teaching strategies. The position is suitable for severely disabled persons. Severely disabled applicants will be given preference in the event of otherwise essentially equal suitability, ability, and professional performance.

Application

Professor Wen is looking forward to receiving your informative documents.

Only applications received in one single PDF file (including an introductory letter, CV, qualification documents, list of publications, and any references you might have) can be accepted.

Please send via email to helga.bassett@tum.de.

Do not hesitate to contact Ms. Helga Bassett for any administrative questions you may have.

If you apply in writing, we request that you submit only copies of official documents, as we cannot return your materials after the completion of the application process.

Application deadline / Closing date: 31.03.2024