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The Energy Information Networks & Systems lab at the Department of Electrical Engineering and Information Technology at Technical University Darmstadt seeks to fill the position of a

## Research Assistant / Doctoral Student (all genders) on Generative AI for Energy Grids

as soon as possible. The position is fully funded, and initially has a fixed-term contract for 3 years. The position is classified according to pay group 13 of the TU Darmstadt collective agreement (TV-TU Darmstadt).

At the Energy Information Networks & Systems lab, our research and teaching focus on the **future of energy management**. This includes the analysis and optimization of the composition of future energy systems, **intelligent methods and algorithms** for operational optimizations, as well as innovative IT solutions for energy automation. At the interface between energy technology and computer science, we thus cover a highly up-to-date, theoretically versatile and economically relevant field of research.

Future energy systems will be largely based on fluctuating, renewable energies. This requires flexible control and planning procedures that take into account large uncertainties. Initial work in the department has shown that generative AI models are a good way to model the uncertainty of complex data in this field, such as heat flows in district heating networks or network topologies in electricity distribution networks. This work is to be continued and expanded using real operational data.

Publications in international top venues are desired. Support of teaching and other lab duties is expected.

### Requirements:

- Very good University Science Degree (M.Sc. /Diploma) in engineering, mathematics, computer or natural sciences
- Interested in the topic of energy transition and AI
- Advanced programming experience
- Previous knowledge of machine learning and power systems is very advantageous, but can also be learned
- Very good English is a must, German language skills are beneficial
- Independent working style, initiative and ability to work in a team

Opportunity for further qualification (doctoral dissertation) is given. The fulfillment of the duties likewise enables the scientific qualifications of the candidate.

Technical University of Darmstadt intends to increase the number of female employees and encourages female candidates to apply. In case of equal qualifications applicants with a degree of disability of at least 50 or equal will be given preference. Part-time employment is generally possible.

Please send your **application** including a motivation letter, CV, and copies of academic transcripts via e-mail with reference to the code number 159 to: [office@eins.tu-darmstadt.de](mailto:office@eins.tu-darmstadt.de)

By submitting your application, you agree that your data may be stored and processed for the purpose of filling the vacancy. You can find our → **privacy policy** on our webpage.

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