Chair of Renewable and Sustainable Energy Systems
TUM School of Engineering and Design
Technical University of Munich

IDP, Research Internship

Empowering Grid Planning: Developing a User-Friendly Interface and Database for an Energy Tool

Background

Our chair is advancing the planning of electricity distribution grids, essential for the energy transition. We've developed a powerful grid planning tool that needs a user-friendly Graphical User Interface (GUI) and a supporting database to make it accessible to a broader audience. This project offers informatics students the chance to explore GUI development, software integration, database design, and user experience (UX) design. You'll work with languages like Python or Java to build an intuitive interface and manage a database that enhances the tool's usability. If you're eager to apply your technical skills and contribute to the digitalization of energy systems, we invite you to join this impactful project!

Goals

- Choose appropriate programming languages and frameworks
- Development of an intuitive and easy-to-use GUI
- Development of a robust and scalable database

Requirements

- Good programming skills
- Good command of Git (GitHub or GitLab)
- Knowledge about data management
- Knowledge about user experience and design
- Knowledge about energy economics is helpful but not crucial

Learning outcomes

- Application of learnt computer science know-how in the realm of energy system modeling
- Becoming proficient in the entire process of GUI-design and data management
- Hands-on software engineering in the following areas: GUI development, software integration, database design and management, user experience (UX) design, programming, software testing, version control, documentation

Contact

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