



Bachelor Thesis/ HiWi

Earliest Starting Date: Now

Power Grid Frequency - Website Management

The balance between generation and demand on short-time scales is reflected by the power grid frequency, making it central to the control of power grids. Unfortunately, little data is shared about power grids, so we started to collect and share some data openly. Power-Grid Frequency provides power-grid frequency across the globe. We want to update/restructure this website to make a more user-friendly user interface. Join our team to enhance the front-end of the website.

Our database is built on open data across three key categories:

- 1. TSO Data: Public recordings from Transmission System Operators.
- 2. Research Projects: Open-data research initiatives.
- 3. Independent Gatherings: Publicly available recordings from industrial, private, or personal sources.

We invite you to join and work with us to manage and revamp this website. After working on this project, you will learn how to handle large datasets and make the visualization appealing, and how to develop visualizations using software tools.

Your tasks would be:

- 1. Manage the website hosting and development by doing research
- 2. Improve the visualizations using Power BI or other tools
- 3. Dynamically visualizing the large dataset uploaded on other sources

Required skills are

- 1. Basic website development knowledge (JQuery, Javascript)
- 2. HTML
- 3. Knowledge of Power BI is a plus

If this resonates with you, please contact us.



Institute for Automation and Applied Informatics (IAI) Karlsruhe Institute of Technology, Campus North Hermann-von-Helmholtz-Platz 1 76344 Eggenstein-Leopoldshafen