

Time-series forecasting in hierarchical electricity grids – a review study

Motivation

Effective predictions of electricity production and demand is crucial for grid operators to allocate their resources wisely. The electricity grid has several hierarchical levels but too few studies leverage the grid topology for better and more granular forecasts on multiple grid levels. An overview study can help to present the state of research and to identify possible topics in which there is still a particular need for research.

Task

The task is to conduct a systematic literature search and to classify the studies into categories to be determined. Determine the frequency of methods used, applications addressed, planning horizons targeted, etc.

Expected results

Students are expected to hand in substantiated report. A stretch goal would be an additional short paper for a conference.

Title German

- Strombedarfsprognosen in der wissenschaftlichen Literatur - eine Übersichtsstudie

Level (Ambition: medium)

- Bachelor thesis
- Master thesis

Methodology

- Literature research

Special prerequisites

- Reading and structuring

Contact:

konstantin.hopf@uni-bamberg.de