



Institute for Automation and
Applied Informatics (IAI)

**Earliest start:
from now**

Bachelor's Thesis

An extension to the clustering-based Voronoi diagram algorithm

The aim of the RESUR project (Robust Energy Systems and Resource Supply) is to improve the robustness and security of the energy system supply. To achieve this goal, the differences in the granularity of models must be overcome so that co-simulation of different models is possible. Time series interpolation and aggregation are common methods to fill gaps in time granularity. The difference in spatial resolution is an important part of this. The main task of this bachelor thesis is to extend and optimize existing spatial mapping algorithms (clustering-based Voronoi diagram) to improve accuracy, robustness and computational speed.

Tasks

1. Downloading various geographical data with OpenStreetMap.
2. Optimization of the existing algorithmic logic.
3. Visualization of the results.

We offer

- Opportunity to participate in pioneering research project.
- Professional guidance and support.
- Flexible working hours and a pleasant working environment.
- The opportunity to participate in international conferences and exchange programs.

Contact

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