

**Sustainability is important to you and you would like to be part of a successful team?
Don't wait any longer and apply now!**

Paid Master's thesis:

Interaction of Smart Energy Systems with Electricity Markets

Your task

The electricity grid's variable markets and rising volatility necessitate flexibly controllable units to compensate for these volatility. All together single-family homes have big potential to contribute energy system's flexibility needs. The task of this thesis is to investigate different possibilities for the interaction of many single-family homes controlled by optimization-based predictive control with electricity markets.



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Your objectives

- Literature study on decentralized control of energy systems
- Investigation of interfaces to electricity markets
- Implementation of market-driven control strategies for predictive supervisory control
- Implementation of decentralized optimization approaches for the controller
- Comparison and validation in simulation studies

Your profile

- Field of Study: Electrical Engineering, Computer Sciences, Digital Engineering, etc.
- Ideally with some background in control engineering or optimization
- Programming experience with MATLAB, Python or (ideally) Julia

General information

- Joint supervision of the master's thesis by BEST and the Institute of Automation and Control
- Integration into a dedicated team with good support
- Perspective of participation in follow-up projects after successful completion
- Financial compensation based on student staff salary scheme

Start: February 2025

Location: Graz, Inffeldgasse 21b

www.best-research.eu



We at BEST value and promote the diversity of skills of our employees and therefore welcome all applications. BEST also aims to increase the proportion of women and expressly encourages qualified women to apply.

Your contact persons

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