Interdisciplinary Project

Recurrent Neural Networks (RNN) for Supervised Energy Disaggregation

Project Outline

Energy disaggregation aims at the estimation of individual loads from an aggregated electrical consumption. One common problem is the identification and extraction of a single appliance load (e.g. a refrigerator) from an aggregated load curve (e.g. smart meter data of a residential building).

The goal of this project is to adapt an existing software implementation for electric load monitoring and energy disaggregation (written in Python programming language, using an RNN) to extract three given household appliances from electricity load data and to evaluate the results.

Required Skills

- experienced in Python programming
- basic knowledge about RNN, ideally first implementation experiences
- interest in smart energy systems and smart city technologies
- team working capabilities

Organization

Communication: In German or English
Workplace: Flexible (home office, Garching-Hochbrück or Campus Garching)
Project Meetings: At least monthly
Group Size: 1 - 3 Students
Lectures: Urban Energy Systems and modern infrastructure for cities (weblink)

Contact Details

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