**Description**

Microgrids are small electrical power systems made of consumption devices, generations devices, and storage systems. A modern house or building is a small microgrid. The goal of this project is to design the software responsible for interacting with the physical devices (monitoring and control), managing the time-series and configuration data, and scheduling the computation modules*. The software should be targeted to a low-cost/low energy platform such as a Raspberry Pi and interface the openEnergyMonitor monitoring system. The candidate should also develop a simple front-end to visualize the system.

*The computation modules that run forecasts and take decisions for real-time control are developed in the team and will be made available.

Co-advised with Laurent Mathy.

**Requirements**

Master in computer science or master in electrical engineering. This project is software development oriented.