Position:

Smart grids and simulations

We are searching students interested in deepening their knowledge on smart grids experiments and simulations. Due to the complexity of Smart Grids environments, testing labs are deployed to run experiments and understand the behaviours and impact of decisions on a larger scale. Such labs have usually a hybrid structure, with hardware-in-the-loop and software simulations.

The foreseen tasks of the position are the following:

- To review current needs, frameworks, and technologies for Smart Grids simulations and experimentation;
- To experiment with selected software systems to manage and run experiments, providing a comparison of alternative systems (e.g., the Mosaik framework for co-simulations);
- To support an existing prototype - based on different components identified in previous steps - for the management of Smart Grids simulations and experiments;

Characteristics of the candidate:

- Good programming skills in either Java/C#/C++;
- Knowledge about some scripting languages, like Python or command line environments such as Bash;
- Good software engineering skills (object orientation, software design);
- Good problem-solving skills;
- Possibly English language knowledge;

We offer:

- Work in a team of motivated young people (Bc/Mgr/PhD students);
- Improving software development skills in a hardware-critical domain;
- Involvement in the latest smart grids research;
- Possible financial bonuses for good performance and results;

Type of collaboration:

- External Contract

Timespan:

- Open throughout the year

Contact:

Bruno Rossi, brossi@mail.muni.cz