

Exercise sessions assistant:

Modeling and Control of Low-Inertia Power Systems

Context:

The use of power electronic inverters in power grids has increased greatly, along with advancements in renewable energy sources which is the key to reduce environmental damage. This leads to a decrease in the inertia of power systems and it is crucial to have a good understanding of how to model and control such systems to overcome the challenges that the various country grid operators face during the large-scale integration of renewable energy sources.

The first significant part of the course is dedicated to modeling & control of low-inertia power systems. The second major part of the course focuses on the predictive & optimization-based control of low-inertia power systems.

Tasks:

The key tasks of the work will be:

- Organization of the exercises in PDF format for distribution to the student.
- Shape and prepare a PowerPoint template for the presentation of the exercise.
- Set up rooms for exercise sessions.
- Help with administration duties.

Good proficiency in MS Office tools is required. Basic knowledge of MATLAB/Simulink environment is desirable but not mandatory.

The contract will start at the beginning of the Summer Semester 2023. The expected weekly working days are about 5-8 hours.

If you have an interest in this position, please send an email to the contact below. Please include as an attachment your CV and current grades.

Contact:

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