Chair of High-Power Converter Systems
TUM School of Engineering and Design
Technical University of Munich

Master Thesis/Research

Design and Control of High-Power Converter for Battery Energy Storage System

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Description

Large-scale battery energy storage system (BESS) is a promising way to access and absorb renewable energies, i.e., wind power, solar power. (Because the undesirable fluctuation and intermittency of renewable energies.)
In this case, converter systems consisting of power electronics as well as electromagnetic components are the key equipment to enable a stable, robust and efficient operation. Therefore, the topic/task here is to design and control the converter system for the BESS.

Tasks

- Literature collection and reading;
- Design and optimize the converter system;
- Control the converter system in an efficient way;
- Simulations/Experiments.
  The specific tasks depend on thesis or research.

Prerequisites

- Great interest and basic knowledge in power electronics, control arithmetic;
- Matlab/Simulink software;
- One of the programming languages.

Contact and further information

- For further information, please contact to Mr. Dehao Kong by email: dehao.kong@tum.de
- Please attach your CV and the latest study transcript to the application.

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