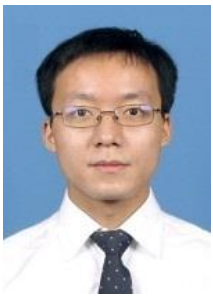


Modeling and Control of Power Electronic Converters for Microgrid Applications

This presentation introduces the fundamental ideas of power electronic converter modeling and control, digital simulation, and experimental studies in the renewable energy systems and AC/DC microgrid. Recent advanced control methods for voltage source inverters (VSIs) and the hierarchical controlled islanded microgrid would be presented, including the mathematical modeling, controller synthesis, parameter selection and multi-time scale stability analysis, as well as the consensus-based control strategies for the microgrid and microgrid clusters. This topic would be an invaluable technical reference for practicing engineers and researchers working in the areas of renewable energy, power electronics, energy internet, and smart grid. This topic has been published in the recent book “*Modeling and Control of Power Electronic Converters for Microgrid Applications*” by Springer: <https://www.springer.com/gp/book/9783030745127>.



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