

CALL FOR BOOK CHAPTERS

Book Title: [Modeling and Control of Smart Grid Systems](#)

The book will be published by Springer in its “Power Systems” Series, and the estimated publication date is June 2010.

Call for Contributions:

Electric power systems are experiencing significant changes at the worldwide scale in order to become cleaner, smarter, and more reliable. This edited book is intended to examine a wide range of topics related to these changes, which are primarily caused by the introduction of information technologies, renewable energy penetration, digitalized equipment, new operational strategies, and so forth. The emphasis will be put on the modeling and control of smart grid systems by mainly addressing the following topics:

I. Control of Smart Grid Systems

1. Physically-Based Cyber Systems
2. Smart Meters
3. Micro grids
4. Control of DC/DC Converters
5. Control of DC/AC inverters
6. Load Frequency Control in Micro Grid Systems
7. Voltage Control in Micro Grid system
8. Active and Reactive Power Control
9. Load Control in Micro Grid Systems
10. Synchronized operation of Micro Grids
11. Islanding Operation of Micro Grids
12. Cyber Control of Micro Grid Systems
13. Design High MW PV Systems
14. Design of high Power Wind Farm
15. Control of Smart Grid System with high green energy penetration

II. Modeling of Smart Grids

1. Loads Impedance model, P and Q model, load forecasting
2. High Efficiency transformers
3. PV Sources(Thermal and PV panels)
4. Wind Turbines
5. Wind Generators
6. High Speed Micro turbines
7. High Speed Micro generators
8. Fuel Cells
9. DC/DC Converters
10. Bidirectional DC-DC Converters
11. Storage systems (Battery and Fly wheels)
12. AC/DC rectifiers
13. DC/AC Inverters

- 14. Multi Level Converters
- 15. Bidirectional Converters

We are looking for book chapter contributions with applications in the above topics and beyond that can be used by the power engineering community for undergraduates, graduates, researchers, and industrial practitioners. Depending on the number of contributed chapters, it can be published by the publisher as one book or several books.

Important Dates:

Author's intention (title & abstract) to contribute a book chapter: October 1, 2009

Full chapter submission deadline: February 1, 2009

Author feedback and notification of decisions: February 28, 2010

Final manuscript submission: March 31, 2010

Electronic Submission:

Book chapters should be prepared according to the standard Springer-Verlag format. An author kit will be sent to the intended contributors after the acceptance of abstracts. All potential chapters are required to be submitted electronically as email attachment in PDF file format to Dr. Lingfeng Wang (Email: lingfeng.wang@utoledo.edu).

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