



Guest Editorial: Special Topic on Microgrids

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With the advent of distributed energy sources in low voltage distribution systems, direct power supply through these sources to local loads as microgrids is becoming a reality. Different microgrid architectures will appear in near future. Microgrids can be operated in an islanded or grid connected modes. Different control techniques will be implemented for smooth operation of microgrids. The objective of this special topic is to address and disseminate state-of-the-art R&D results on microgrids to bring together researchers from both academia and industry with the goal of fostering interactions among stakeholders. This special topic provides a timely overview of various research topics on microgrids.

We have 7 high-quality papers in this special topic. They are: Optimal planning of stand-alone microgrids incorporating reliability by Chengshan Wang et al.; Recent advancements on the development of microgrids by Qing Li et al.; Overview of control, integration and energy management of microgrids by

Yunwei Li et al.; Control of hybrid AC/DC microgrid under islanding operational conditions by Guangqian Ding et al.; Active stabilization methods of electric power systems with constant power loads: a review by Mingfei Wu et al.; Small signal stability analysis of a synchronized control-based microgrid under multiple operating conditions by Zehan Lu et al. and Design and application of microgrid operation control system based on IEC 61850 by Wen Lu et al.

We would like to acknowledge the efforts of all authors for their high-quality submissions which indeed have made our Editorial work particularly tough. Also, we are grateful to all the reviewers for their thorough and on-time reviews which helped us greatly in the selection process. Our deepest gratitude goes to the Editorial Board of the journal for supporting our initiative, and in particular, Prof. Y. Xue and Prof. K.P. Wong, the Editor-in-Chief and Deputy Editor-in-Chief, for offering their advice and guiding us through the editorial process. Finally, we would like to thank all colleagues whose outstanding work appears in this special topic.

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