



CALL FOR PAPERS

Journal of Modern Power Systems and Clean Energy

Special Issue on Modern Optimization Techniques for Power System Operation and Planning

Modern power system planning and operation is undergoing dramatic changes. Due to increased penetration of renewable energies and other emerging technologies, system planning and operation must now cope with various uncertainties and risks. Meanwhile, rapid development of smart grids calls for effective solutions to coordinate and optimize new and old technologies to improve overall system security and efficiency at large.

This special issue intends to report the latest advancements in classical and emerging optimization techniques applied to solve the difficulties and challenges facing power system operation and planning in smart grid environments. The submitted papers should focus on new and effective optimization methods for solving existing models, or building up new models or paradigms to solve emerging problems in the field. The proposed optimization methods of interest should include, but are not limited to, linear programming, nonlinear programming, mixed integer programming, stochastic and robust optimization, and various evolutionary computing and machine-learning based algorithms. Specific topics of interest include

- New optimization algorithms and frameworks for system operational and expansion planning facing uncertainties and risks.
- Optimized analytic methods for big data analysis to enhance security surveillance and control intelligence.
- Advanced models and techniques to facilitate large scale integration of renewable energies, plug-in electric vehicles, heat pumps and storages.
- Stochastic and robust models for system dispatch/unit commitment as well as development and incorporation of demand response, demand-side management and so forth.
- New control models and techniques to improve system stability, robustness and efficiency.
- Advancements in evolutionary or other emerging algorithms for solving challenging optimization problems in power systems such as those involving multiple objectives, nonlinearities, nonconvexities, permutations and so forth.
- Advancements in machine learning and its innovative applications to power system planning and operation.

Submission Guidelines

- <http://www.editorialmanager.com/mpce> or link via
- <http://www.springer.com/40565>
- E-mail: mpce.edit@gmail.com

Important Dates

- Paper submission deadline: August 31, 2014
- Acceptance notification: September 1, 2014-October 31, 2014
- Date of Publication: November 2014

Guest Editorial Board

A/Prof Zhao Xu (Guest Editor-in-Chief), The Hong Kong Polytechnic University, HungHom, HK
E-mail: eezhaoxu@polyu.edu.hk

Dr. Lingfeng Wang, (Guest Editor), The University of Toledo, Toledo, OH 43606, USA
E-mail: lingfeng.wang@utoledo.edu



Dr. Guangya Yang, (Guest Editor), Technical University of Denmark
Email: gyy@elektro.dtu.dk

Dr. Junhua Zhao (Guest Editor), The University of Newcastle, Australia
Email: Andy.Zhao@newcastle.edu.au

Prof. Hua Wei(Guest Editor), Guangxi University, China
Email: weihua@gxu.edu.cn

Editor-In-Chief and Deputy: Professor Yusheng Xue (State Grid Electric Power Research Institute, Nanjing, China) and Professor Kit Po Wong (The University of Western Australia)