CALL FOR COMPETITION

Heuristic optimization has undergone significant developments in recent years. By using different novel mechanisms for improved search exploration and exploitation, modern heuristic optimization tools have demonstrated a great promise for solving real world problems with high mathematical complexity.

The Working Group on Modern Heuristic Optimization under the IEEE PES Analytic Methods in Power Systems (AMPS) Committee is organizing a Panel Session combined with a Competition titled:

"**Evaluating the Performance of Modern Heuristic Optimizers on Smart Grid Operation Problems**"

The session will be held at the 2017 IEEE PES General Meeting. This panel and competition concerns with two hard-to-solve optimization test beds: i) Stochastic OPF based active-reactive power dispatch; ii) Optimal scheduling of distributed energy resources. All interested researchers are kindly invited to be part of this initiative and to ascertain the effectiveness of their algorithms on these challenging test beds.

All interested participants are encouraged to send an email to j.l.ruedatorres@tudelft.nl by **30 January 2017**, indicating their names, affiliation, and the algorithm to be used.

The problem definitions and implementation guidelines as well as Matlab codes for the **test suite can be downloaded from** http://sites.ieee.org/psace-mho/2017-smart-grid-operation-problems-competition-panel/.

Final results should be submitted to this email address until 30th March 2017 in accordance with the guidelines provided. The implementation codes of each algorithm entering the competition should also be submitted along with final results. The submitted codes will be in the public domain and no intellectual property claims should be made.

The organizers will announce the codes together with a comparative analysis based on the provided results between April-May 2017 at http://sites.ieee.org/psace-mho/2017-smart-grid-operation-problems-competition-panel/. **The first three ranked algorithms** will be selected for presentation at the panel, for which only PowerPoint presentations are required.

Important dates:
Call for competition: **14 January 2017**
Confirmation of participation: **30 January 2017**
Submission of results and codes: **30 March 2017**
Announcement of best three ranked algorithms: **28 April 2017**
2017 IEEE PES General meeting: **16-20 July 2017**

Panel Organizers:
Dr. José Rueda
Delft University of Technology, Netherlands
Email: j.l.ruedatorres@tudelft.nl

Prof. István Erlich
University of Duisburg-Essen, Germany
Email: istvan.erlich@uni-due.de

Prof. Kwang Y. Lee
Baylor University, USA
Email: kwang_y_lee@baylor.edu