



IEEE PES Working Group on Modern Heuristic Optimization

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 some real world problems, whose mathematical complexity prevents thus far the use of classical optimization algorithms.

The Working Group on Modern Heuristic Optimization under the IEEE PES Power System Analysis, Computing, and Economics Committee is planning to organize a Panel Session combined with a Competition on:

“Application of Modern Heuristic Optimization Algorithms for Solving Optimal Power Flow Problems”

The session will be held at the 2014 IEEE PES General Meeting. This panel is the first step towards the development of power system optimization test beds where the general applicability and effectiveness of emerging tools in the field of heuristic optimization can be evaluated and compared with one another.

All interested researchers are kindly invited to be part of this initiative and to test their novel concepts on optimal power flow computation by using four test networks with varying degrees of complexity.

All interested participants are encouraged to send an email to istvan.erlich@uni-due.de 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://www.uni-due.de/eand/downloads/aktuelles/test_bed_OPF.zip**. Final results should be submitted to this email address until March 1st, 2014 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 by 15 March 2014 at <http://www.uni-due.de/ean/>. **The first six ranked algorithms** will be selected for presentation at the panel, for which only PowerPoint presentations are required.

Panel Organizers:

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