



Operations Research and Engineering Management Seminar Series

Research Seminar

The ARPA-E Grid Optimization Competition



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11:00 a.m. – 12:15 p.m.
<https://smu.zoom.us/j/97906267193>

Abstract

In recent years, the US Advanced Research Projects Agency-Energy (ARPA-E) has been organizing the “Grid Optimization Competition.” To participate, teams from academia and industry submitted computer program implementations of specialized algorithms for solving large realistic Security-Constrained Optimal Power Flow (SCOPF) problems. The performance of the solvers was tested and ranked independently by the organizers, using large-scale real-life instances. The goal of SCOPF is the determination of the most cost-efficient operation of an electrical power grid in a such way that it can withstand contingencies in the form of outages of

any its components. Mathematically, this is an extremely large-scale two-stage nonlinear and nonconvex optimization problem. In this presentation, the approach of several teams will be