

Title: Sensing Cloud Optimization to Solve ED of Units with Valve-Point Effects and Multi-fuels

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Abstract: In this paper a solution to an highly constrained and non-convex economical dispatch (ED) problem with a meta-heuristic technique named Sensing Cloud Optimization (SCO) is presented. The proposed meta-heuristic is based on a cloud of particles whose central point represents the objective function value and the remaining particles act as sensors "to fill" the search space and "guide" the central particle so it moves into the best direction. To demonstrate its performance, a case study with multi-fuel units and valve- point effects is presented.

Author Keywords: Economic dispatch; Optimization; Heuristics; Cloud of particles

KeyWords Plus: Particle Swarm Optimization; Economic-Dispatch

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