

# **A New Simulated Annealing-Based Tabu Search Algorithm For Unitcommitment**

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## **Summary**

We propose a new hybrid algorithm for solving the unit commitment problem (UCP). The algorithm integrates the use of simulated annealing (SA) and tabu search (TS) for solving the UCP. The algorithm includes a step to find an initial control parameter, at which virtually all trial solutions are accepted. It uses a polynomial-time cooling schedule that is advocated in the SA literature. Furthermore, the short-term memory procedures of the TS method are embedded in the SA test to prevent cycling of accepted solutions. Numerical examples from the literature are solved. Results showed an improvement in the solutions costs compared to previously obtained results

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