Damascus energy storage for microgrids

Thank you for visiting nature . You are using a browser version with limited support for CSS. To obtain the best experience, we recommend you use a more up to date browser (or turn off compatibility mode in Internet Explorer). In the meantime, to ensure continued support, we are displaying the site without styles and JavaScript.

Presenting a multi-objective framework for the short-term scheduling of a microgrid (MG) incorporating a plug-in hybrid electric vehicle (PHEV), with cost and emissions as dual objective functions.

Incorporating the proposed SaCryStAl optimization technique to simultaneously minimize costs and emissions, generate Pareto optimal solutions, and determine the optimal compromise solution using a fuzzy satisfaction method.

The mathematical model of CryStAl, which applies the fundamental ideas of crystal formulation with the appropriate adjustments, is described in this part. All possible solutions to the optimization procedure are viewed as individual crystals in the solution space in this model. Initial crystals are generated randomly74. The idea of adding a basis to lattice points to create crystals served as the inspiration for the crystal structure algorithm. Siamak Talatahar suggested this crystal structure algorithm in 2021 based on this idea75.

where Xi,j is the jth variable in the ith solution vector, where m is the problem"s dimension and N is the number of crystals or potential solutions. "(r) " is a random number between [0, 1], Lj and Uj are the variables, lower and upper bounds. The structure of the initial population matrix is shown in Eq. (2).

Web: https://hollanddutchtours.nl/contact-us/
Email: energystorage2000@gmail.com
WhatsApp: 8613816583346