Laayoune high temperature solar system design

The major objectives of this work are: 1) to develop new efficient optimization algorithm to solve NP-hard problems, 2) to show the potential of integrating renewable energy technologies for Laayoune region- ...

The Laayoune project proves that advanced lithium battery technology enables reliable renewable energy at utility scale. As more countries adopt similar models, strategic partnerships with technical ...

The main aim of this article is to investigate the optimal setup and conduct a technical and economic evaluation of a hybrid solar-wind energy system for electrifying Laayoune city, ...

PVGIS is one of many simulation tools developed to help engineers and design researchers to evaluate the performance and realize solar PV systems around the world.

With high solar irradiance levels ranging from 4.5 to 6.5 kWh/m²/day, Ecuador offers ideal conditions for deploying solar panel battery systems, both off-grid and hybrid, across diverse environments--from ...

In this work, new parallel hybrid Genetic Algorithm-Particle Swarm Optimization algorithm (P-GA-PSO) is developed to solve both sizing and energy management problems for micro-grids. ...

The results presented in this paper concerned a comparative and performance analysis of three PV technologies Monocrystalline (2kWp), Polycrystalline (1.82kWp) and Amorphous (1.55kWp).

Based on these findings, it is recommended to consider the integration of both solar and wind systems in Dakhla and Laayoune, taking advantage of their high potential for both energy sources. Such hybrid ...