

Sliding average algorithm for hybrid solar container system

This paper considers real-time parameter variations of dish Stirling solar thermal system (DSTS) and combined solar parabolic trough-thermal power system (HTP)-based hybrid ...

A hybrid renewable energy system, including photovoltaic (PV) plant, wind farm, concentrated solar power (CSP) plant, battery, electric heater, and bidirectional inverter, is proposed. ...

This paper introduces a novel method to control the operation of the active suspension system. In this research, a quarter-dynamic model is used to simulate the vehicle's vibrations. ...

The integration of hybrid renewable energy systems has been widely explored in the literatures. In [3], a composite sliding mode controller is implemented for a solar photovoltaic (SPV) ...

Aiming at the above research problems, the method of smoothing wind power fluctuation is studied and improved. Firstly, the sliding average algorithm is used to smooth the original wind power fluctuations, ...

In this context, a novel HESS (hybrid energy storage system) control strategy, combining the PV (photovoltaic) generator with FLC (fuzzy logic control), SC (super-capacitor), and ...

First, this study focuses on the optimization of container unloading operation in the three-dimensional terminal, it designed and optimized a new system for container handling in three ...

This paper introduces a novel method to control the operation of the active suspension system. In this research, a quarter-dynamic model is used to simulate the vehicle's vibrations. Besides, the sliding ...

Robust nonlinear photovoltaic-battery tied hybrid system's equivalent circuit mathematical modelling is developed for optimized battery performance. The proposed non-linear ...

It depicts undesirable phenomenon like chattering, inherent in it causing power and heat losses. In this paper, a supertwisting sliding mode algorithm based nonlinear robust controller ...

Initially, we apply the sliding window algorithm to the solar flare time series, which contains a total of $N = 151,071$ flares. Using a window length of $w = 24$, the algorithm generates a total of $N - w = 151,047$...

The developed MPPT control algorithm is applied to a solar PV system and tested under variable irradiance conditions. In addition, the parameters of super twisting sliding mode and type 2 ...

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In this paper, a sliding mode control-based current sharing algorithm for Hybrid Energy Storage System is proposed that also features uninterruptible supercapacitor cyclic charging, while ...

(DOI: 10.3390/EN13030723) The stochastic nature of renewable energy sources, especially solar PV output, has created uncertainties for the power sector. It threatens the stability of the power system ...



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