Liu Dejie Ocean Microgrid

The present study develops a framework and methodology for integrating ocean wave power into maritime microgrids operating on hybrid renewable energy systems. It investigates the ...

In this paper, we will first introduce the extended concept of the microgrid as an integrated energy system and its applications in the marine sector, and then present the state of the art for the control, ...

This paper proposes a two-layer multi-scenario collaborative optimization configuration model for off-grid multi-microgrid systems that considers the life degradation of energy storage equipment. Among ...

This paper provides a comprehensive overview of the microgrid (MG) concept, including its definitions, challenges, advantages, components, structures, communication systems, and control ...

Liu, an associate professor of electrical and computer engineering, is developing an advanced algorithmic design and doing hardware experimentation. Ultimately, his work is laying the ...

This paper deals with the design of an advanced optimal strategy to enhance power management and frequency control in marine microgrids. The investigated system incorporates a mix of renewable ...

The demand for Energy for development is increasing while fossil energy sources are gradually exhausted, causing many negative environmental impacts. The resear.

In response, we present a universal energy storage strategy for TENGs specifically designed for real marine environments, facilitating effective charging of lithium batteries for the first time.

We present a framework and methodology herein for augmenting maritime microgrids with wave energy to augment their stability via theoretical wave energy resource assessment, wave energy converter ...

In this article, we will explore the significance of decentralized power generation and its potential in the form of community microgrids powered by ocean energy. The development and ...

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