

A hybrid ship power system with fuel cell and storage system batteries/supercapacitors can be developed by adding renewable energy sources. Adding PV to the hybrid system enhances the system's ...

The Navy's next generation electric ship's power system will support high energy loads and critical equipment. Energy storage modules will be needed to meet the demands of these loads as ...

All-electric (AES) ship power system (SPS) generally employs energy storage (ESS) to improve operation efficiency, redundancy, and flexibility while reducing environmental impacts. ...

The energy storage system has the function of stabilizing fluctuations of electric energy. The intelligent control strategy mainly includes two parts: First, the ship energy ...

Polarium was founded in 2015 on the conviction that safe, smart and sustainable energy storage solutions will be key to empower the transition to a truly sustainable energy future. What we do ...

This paper proposes an advanced shipboard energy management strategy (EMS) based on model predictive control (MPC). This EMS aims to reduce mission-scale fuel consumption of ship hybrid power plants, ...

Energy storage system (ESS) is a critical component in all-electric ships (AESs). However, an improper size and management of ESS will deteriorate the technical and economic ...

The propulsion systems of hybrid electric ship output and load demand have substantial volatility and uncertainty, so a hierarchical collaborative control energy management scheme of the ship propulsion system is ...

The demand for green solutions in the maritime industry is driving an increased use of clean electrical power systems that utilise energy storage. The energy storage unit from KONGSBERG is specifically designed for demanding marine ...

