Intelligent Service Quality of Photovoltaic Containers at Port Terminals

What is integrated energy system in a sustainable port?
This study focuses on an integrated energy system that involves wind energy,photovoltaic energy,hydrogen energy and energy storagein the sustainable port. The multiple energy sources are used to generate electricity to support container loading and unloading in vessels.

Does integrated energy scheduling for port operations consider uncertain container loads?
Conclusions This study investigates an integrated energy scheduling for port operations that considers the uncertain container loads in vessels. For the problem,the integrated energy system involving wind,photovoltaic,and hydrogen energy is introduced to generate electricity for the demand from vessels and handling equipment.

What is integrated energy scheduling in a port?
This paper studies an integrated energy scheduling in a port which involves wind energy, photovoltaic energy, hydrogen energy, energy storage and purchased electricity to support vessel handling. In the port integrated energy system, wind energy and photovoltaic energy are used to generate electricity.

Does a port''s energy system integrate wind and photovoltaic?
This paper studies a port's energy system integrating wind, photovoltaic, hydrogen energy. A two-stage model is formulated to incorporate uncertain demand, and electricity storage and sales. An adaptive large neighborhood search based metaheuristic is designed. Experiments are conducted to validate the proposed methodology and derive insights.

The construction of green ports has become a global consensus currently, and the multi-energy integration of wind, photovoltaic, battery and hydrogen in ports has broad ...

The world's first intelligent container terminal with zero carbon emissions went into operation in Tianjin Port on Oct 17. Its "brain", by coordinating all functional factors in the area ...

Abstract. Accelerating the construction of intelligent and green ports with high automation level and low energy consumption has become a key direction to pro-mote the ...

Ports are the main arteries of global trade, handling goods circulation and serving as hubs for information, capital, and technology.

Interestingly, the direct impacts of digital adoption and service quality on business sustainability are absent, which emphasizes the need for strategic alliances. Thus, Indonesian port terminals ...

Where efficiency and digitalization determine the success of global supply chains, smart ports are now setting standards. But which ports and terminals are currently setting global benchmarks ...

Due to the complex-shading and ununiform-corrosion problems caused by the oceanic climate, the working conditions of photovoltaic (PV) system in port are poor. In this ...

With the world moving increasingly towards renewable energy, Solar Photovoltaic Container Systems are an efficient and ...

The Assessment of Terminals for Containers and Service Quality Evaluation Using a Circular Intuitionistic Fuzzy Intelligent Algorithm,IEEE Access - X-MOL

A report from exploringtianjin on Oct. 18, 2021: The world's first intelligent container terminal with zero carbon emissions went into operation in Tianjin Port on Oct 17. Its "brain", ...

Optimization of the design of photovoltaic-based seaport microgrids considering techno-economic and environmental criteria

It is important to maintain a coordinated approach to promote systemic upgrades, and accelerate comprehensive development in smart ports, intelligent waterways, smart ships, ...

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