عنوان مقاله:

Utilizing Smart Energy Networks to mitigate the smart seaport carbon footprint

محل انتشار:

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خلاصه مقاله:

The European MSP Platform (Maritime Spatial Planning) issued “Green airports and ports as multimodal hubs for sustainable and intelligent mobility program, “then all ports shall demonstrate integrated low-emission energy supply and production at ports and supply systems, with storage, distribution, and sustainable alternative fuel refueling infrastructure for ships and other vehicles operating at/to/from ports, as well as for other uses [۱]. On the other hand, the smart seaport is “a port in which all operations, including terminal, warehousing, logistics, yard, and port transportation, are closely connected through the wireless network or special network, providing all kinds of information for daily operations.” [۲]. Furthermore, an essential component of a smart port is intelligent management to control and manage all port operations and balance energy demand and supply intelligently by using intelligent tools like the internet of things (IoT) and intelligent girds [۳]. Then, seaports need to minimize internal port boundary’s energy consumption or replace them with renewable energies according to international guidelines such as ISO ۵۰۰۰۱ [۴] and Port Energy Management Plans (PeMP) [۵]. This research surveys the carbon footprint (C.F) reduction caused by fuel consumption reduction, which results from using smart energy networks in electricity production, distribution, and consumption.

کلمات کلیدی:

smart seaport, carbon footprint, energy management, internet of things, intelligent girds.

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