

عنوان مقاله:

FEASIBILITY STUDY of OFFSHORE SOLAR POWER PLANT in PERSIAN GULF

محل انتشار:

دوازدهمین همایش بین المللی سواحل، بنادر و سازه های دریایی (سال: 1395)

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نویسندگان:

Morteza Bahadori - *Department of Maritime Engineering, Amirkabir University of Technology (Tehran Polytechnic),
, Tehran, Iran*

Hassan Ghassemi - *Department of Maritime Engineering, Amirkabir University of Technology (Tehran Polytechnic),
Tehran, Iran*

خلاصه مقاله:

Large flat land surfaces, where direct normal irradiance (DNI) is high enough for concentrating solar power (CSP), are scarce in some countries. Floating offshore solar power plants in these areas could increase the countries and island's solar power resources significantly. Building offshore solar power plants offers two technical advantages. First, sun-tracking around a vertical axis can be implemented easily. Secondly unlimited cooling water is available, which can increase the efficiency of the thermodynamic cycle [1]. In this paper, a solar platform is investigated, where individual platform segments are supported by several air chambers formed by cylindrical flexible membrane skirts. From experimental data gained from a 4x4 m physical model [1], we have obtained the general characteristics of the platform which extended to a 20x30 m numerical model. By using wave data of the Persian Gulf, the motion of the platform in different sea states is calculated.

کلمات کلیدی:

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