سیویلیکا - ناشر تخصصی مقالات کنفرانس ها و ژورنال ها
گواهی ثبت مقاله در سیویلیکا
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عنوان مقاله:

Numerical simulation of wave and current to estimate lift-up

محل انتشار:

چهارمین کنفرانس بین المللی سواحل و بنادر و سازه های دریایی (سال: 1379)

تعداد صفحات اصل مقاله: 2

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خلاصه مقاله:

Discharge caissons will be constructed on sandy coast, which has outlets for thermal discharge from a power plant. To prevent sand lift-out through rubble mound from waves and currents is one of the most important issues to maintain stability of the structures. To predict an occurrence of sand liftout through the rubble mound, it is risky to use physical model tests because of scale effects on sand movement. The methodology applied in the present work is to estimate velocity in the rubble mound using a 2-D numerical simulation model by which we can calculate velocity and pressure in porous media as well as in pure water region. The numerical model includes coefficients on fluid resistance force, drag and inertia coefficients. To verify the numerical model, pore pressure in the rubble mound was measured at the physical tests and compared with the simulated results. Then the velocity field simulated was used for estimating the sand movement.

کلمات کلیدی:

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