عنوان مقاله:

T - TYPE BREAKWATER FOR DEEP WATER PORTS

محل انتشار:

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

تعداد صفحات اصل مقاله: 3

نویسندگان:

S.Neelamani - *Assistant Professor Ocean Engineering Centre Indian Institute of Technology Madras CHENNAI ۶۰۰ ۰۳۶, INDIA.*

.R.Rajendran - *Assistant Executive Engineer Chennai Port Trust Chennai ۶۰۰ ۰۰۱ CHENNAI ۶۰۰ ۰۳۶, INDIA. INDIA*

خلاصه مقاله:

The wave transmission, reflection and energy dissipation characteristics of partially submerged `T'-type breakwaters (Fig.1) were studied using physical models. The 2 m wide, 72.50 m long large wave flume available in Ocean Engineering Centre, Indian Institute of Technology Madras, Chennai, INDIA is used for this investigation. Regular and random waves of a wide range of wave heights ‘Hi ‘, wave periods 'T' and a constant water depth 'd' of 70 cm was used. Five numbers of wave probes were utilised to measure incident, reflected and transmitted wave height. Five different depths of immersions, (D = 0, -5 cm, -10 cm, -15 cm and -20 cm) were selected. Investigations for the following ranges of the normalized conditions are carried out:a.Wave steepness, Hi /L : 0.004 to 0.137 b.Relative water depth, d/L : 0.094 to 0.452 c.Relative wave height, Hi /d : 0.037 to 0.527 d.Relative immersion of the Breakwater, D/d : 0.0 to -0.286 where 'L' is the wavelength. These wide ranges are selected so that this study can be used for a design of this breakwater for a wide range of conditions encountered in shallow to deep water ports The coefficient of transmission, kt (kt = Ht /Hi), coefficient of reflection, kr (kr =Hr /Hi), were obtained from the measurements and the coefficient of energy loss, kl is calculated using the law of conservation of energy, where Ht and Hr are the transmitted & reflected wave heights respectively. The effect of Hi /L, d/L and D /d on kt , kr and kl were investigated

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا: