

PROPOSE SEMI-EMPIRICAL EQUATION TO ESTIMATE WAVE TRANSMISSION COEFFICIENT VIA COMPLEX SUBMERGED BREAKWATER (A CASE STUDY FOR CA MAU AND HA TIEN COASTAL ZONE)

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Summary

This article presents a semi-empirical equation to estimate wave transmission coefficient via pre-casted concrete complex submerged pile breakwater to protect shoreline of Ca Mau and Ha Tien from wave pressure. The study utilizes wave energy theories screening with 300 experiments in physical wave tank to define key factors influence wave energy dissipation process e.g. relative depth (R_c/H_{m0}), relative width (B/H_{m0}), wave slope ($s_m = H_{m0}/L_m$), submerged length of pile group ($L_c/H_{m0} \approx R_c/H_{m0}$) and relative width of pile group (X_b/L_m). Empirical equation has been proved to be sufficient, reliable to apply on practical calculation for this type of structure.

Keywords: *Semi-empirical equation, submerged complex with solid piles breakwater, permeable breakwater, pile group wave dissipation, wave transmission coefficient, wave energy dissipation, physical model, wave energy, definition factor.*