Numerical Modeling of Waves and Currents by Using a Hydro-Sedimentary Model

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Abstract : Over recent years much progress has been achieved in the fields of numerical modeling shoreline processes: waves, currents, waves and current. However, there are still some problems in the existing models to link the on the first, the hydrodynamics of waves and currents and secondly, the sediment transport processes and due to the variability in time, space and interaction and the simultaneous action of wave-current near the shore. This paper is the establishment of a numerical modeling to forecast the sediment transport from development scenarios of harbor structure. It is established on the basis of a numerical simulation of a water-sediment model via a 2D model using a set of codes calculation MIKE 21-DHI software. This is to examine the effect of the sediment transport drivers following the dominant incident wave in the direction to pass input harbor work under different variants planning studies to find the technical and economic limitations to the sediment transport and protection of the harbor structure optimum solution.

Keywords : swell, current, radiation, stress, mesh, mike21, sediment

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