An Investigation on PMO Dynamic Model in Bushehr Bay, Persian Gulf, Iran

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Abstract

Due to the lack of measurements in many regions, wave characteristics are estimated using different methods. Wave climate hindcasting/forecasting is mostly conducted by numerical models or empirical methods. Until now, different empirical methods have been developed for wave hindcasting. However, with the development of high speed processors, several sophisticated numerical models have been developed for wave prediction. These models are mostly phase-averaged spectral wave models developed in three generations. In the last two decades, third generation wave models have been used widely in academic and practical projects.

In this regard, Port and Maritime Organization has produced his own model, PMO Dynamic. This model has been developed as a part of first three phases of Monitoring and Modeling of Study of Iranian Coasts project. PMO Dynamic package is a software available for engineering purposes. It has several modules that have been developed for different objectives. Wave model is the module which is used for the generation and transformation of wind waves in coastal areas. In this paper, in order to test the PMO Dynamic model capabilities, it has been applied for the prediction of wave parameters in Bushehr Bay and the results have been compared with MIKE21 SW model and measured data.

Keywords: *PMO Dynamic, MIKE21 SW, Bushehr Bay, Wave distribution.*