Parameterization of Coastal Engineering Analysis Curve

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ABSTRACT

Design curves in Shore Protection Manual are the most important element to refer and widely used in the study of coastal engineering. The design curves is the most common method of representing the relationship between various parameters. The use of design curves is very tedious, and the graph plots are mostly based on measured field and laboratory test data, This study is thus aimed at providing simplified equations on the relationship of the parameters.

The wide spreed use of computer makes it necessaryto have the graph in the form of equations for any numerical simulations

With the simplified equations it is hoped that a coastal model using these equation will required less computation and result in faster simulation with an acceptable degree of accuracy.

1) INTRODUCTION.

1.1. The Use of Design Curve

The studies of coastal engineering involves a lot of parameters which are obtained from measured labaratory and field or theoretical formulation. The relationship between these parameters are usually in the form of design curves which is invaluable in the analysis and design of coastal structures.

Various types of design curve are available and used to be the reference to coastal engineer in the Shore Protection Manual (SPM) many of them being empirical. The usage of the design curve is tedious and the equations derived from theory are quite complicated .

Thus, it is advantagous to have the design curve in simplified form for use either in direct analytical calculation or in computer programs used for simulation.

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