Department of Ocean and Resources Engineering

Seminar

Rubble Mound Structures: Past, Present, and Future

by

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Abstract

This presentation discusses observations of coastal structures that have experienced failures. This is not intended to be critical of the design and construction of any particular structure; but rather, it is intended to illustrate that the design of coastal structures is often not straightforward and, nevertheless, structures must be built with the best available technology. Although the technology for rubble structures, in particular, is rapidly developing, it does in many cases lag far behind the needs of the demanding requirements for new structures in deeper water and rougher weather. In this context, a failed structure is one that was subjected to extreme damage well within the life of the structure, and which, without major repairs, would have subsequently been a total failure. Because of the wide variety of coastal structures which could be analyzed in this way, the scope of this presentation will be limited to rubble mound structures which are used either as breakwaters or jetties, and is aimed at the shortcomings in technology for designing and constructing rubble mound structures in deep water and extreme environments.