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Descrizione fisica	1 online resource (xxxvii, 580 pages) : digital, PDF file(s)
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Lingua di pubblicazione	Inglese
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Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Review of hydromechanics -- Linear surface waves -- Nonlinear surface waves -- Random seas -- Wave modification and transformation -- Waves in the coastal zone -- Coastal engineering considerations -- Wave-induced forces and moments on fixed bodies -- Introduction to wave-structure interaction -- Wave-induced motions of floating bodies -- wave-induced motions of compliant structures.
Sommario/riassunto	Ocean Engineering Mechanics provides an introduction to water waves and wave-structure interactions for fixed and floating bodies. Linear and nonlinear regular waves are thoroughly discussed, and the methods of determining the averaged properties of random waves are presented. With this foundation in wave mechanics, applications to

engineering situations in the coastal zone are then presented. This introduction to the coastal engineering aspects of wave mechanics includes an introduction to shore protection. Covered within are also the basics of wave-structure interactions for situations involving ridged structures, compliant structures, and floating bodies in regular and random seas. The final chapters deal with the various analytical methods available for the engineering analyses of wave-induced forces and motions of floating and compliant structures in regular and random seas. An introduction to the soil-structure interactions is also included. The book can be used for both introductory and advanced courses in ocean engineering mechanics.
