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| Autore                  | Chandrasekaran Srinivasan  |
| Titolo                  | Dynamic Analysis and Design of Offshore Structures / / by Srinivasan Chandrasekaran  |
| Pubbl/distr/stampa      | New Delhi : , : Springer India : , : Imprint : Springer, , 2015  |
| ISBN                    | 81-322-2277-6  |
| Edizione                | [1st ed. 2015.]  |
| Descrizione fisica      | 1 online resource (305 p.)   |
| Collana                 | Ocean Engineering & Oceanography, , 2194-640X ; ; 5  |
| Disciplina              | 627.98   |
| Soggetti                | Offshore structures<br>Engineering geology<br>Oceanography<br>Cogeneration of electric power and heat<br>Fossil fuels<br>Offshore Engineering<br>Geoengineering<br>Ocean Sciences<br>Fossil Fuel   |
| Lingua di pubblicazione | Inglese  |
| Formato                 | Materiale a stampa   |
| Livello bibliografico   | Monografia   |
| Note generali           | Description based upon print version of record.  |
| Nota di bibliografia    | Includes bibliographical references and index.   |
| Nota di contenuto       | Introduction to Offshore Platforms -- Environmental Forces --<br>Introduction to Structural Dynamics -- Damping in Offshore Structures<br>-- Hydrodynamic Response of Perforated Offshore Members --<br>Introduction to Stochastic Dynamics -- Applications in Preliminary<br>Analysis and Design -- References. -Index.   |
| Sommario/riassunto      | This book attempts to provide readers with an overall idea of various types of offshore platform geometries. It covers the various environmental loads encountered by these structures, a detailed description of the fundamentals of structural dynamics in a class-room style, estimate of damping in offshore structures and their applications in the preliminary analysis and design. Basic concepts of structural dynamics are emphasized through simple illustrative examples and exercises. Design methodologies and guidelines, which are FORM based concepts are explained through a few applied example structures. Each chapter also has tutorials and exercises for self- |

learning. A dedicated chapter on stochastic dynamics will help the students to extend the basic concepts of structural dynamics to this advanced domain of research. Hydrodynamic response of offshore structures with perforated members is one of the recent research applications, which is found to be one of the effective manner of retrofitting offshore structures. Results of recent research, validated by the experimental and numerical studies are presented to update the readers. Integration of the concepts of structural dynamics with the FORM-evolved design of offshore structures is a unique approach used in this book. The book will prove useful to the practicing and consulting offshore structural engineers, as also to students and researchers working in the field. .

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