



Structural Reliability Analysis of Offshore Structures

By Athanasios Kolios

LAP Lambert Academic Publishing Aug 2012, 2012. Taschenbuch. Condition: Neu. Neuware - Structural Reliability treats uncertainties in design systematically, evaluating the levels of safety and serviceability of structures throughout their service life. During the past decades, it has been established as a valuable design tool for the evaluation of the performance of structures, and lately stands as a basis on the development of the most up-to-date design standards, aiming to achieve a uniform behaviour within a class of structures. This contribution presents an efficient methodology for structural reliability analysis of complex offshore structures based on a combination of Stochastic Response Surface Method (SRS), Finite Element Analysis (FEA) simulations and employment of analytical methods for calculation of reliability (FORM/SORM). Stochastic variables in the design are extensively discussed and analytical limit states are derived based on fundamental failure criteria as well as on the design requirements of relevant design standards. The methodology can be extended to the reliability assessment of other intricate engineering problems, where detailed analysis is required for the derivation of the response of a structure or system under stochastic variables. 384 pp. Englisch.



READ ONLINE
[5.69 MB]

Reviews

Undoubtedly, this is the best job by any article writer. This really is for all those who statte that there was not a worth reading. I am very easily can get a enjoyment of reading a published pdf.

-- **Rowena Leannon**

Complete guide! Its such a good go through. It is rally fascinating throgh reading period of time. Its been written in an extremely basic way and is particularly only after i finished reading through this publication through which really changed me, change the way i really believe.

-- **Mrs. Macy Stehr**