Thorough Reviews The Offshore Installations Safety Case

The International Ship and Offshore Structures Congress (ISSC) is a forum for the exchange of information by experts undertaking and applying marine structural research. The aim of the ISSC is to facilitate the evaluation and dissemination of results from recent investigations, to make recommendations for standard design procedures and criteria, to discuss research in progress and planned, to identify areas requiring future research and to encourage international collaboration in furthering these aims. Ships and other marine structures used for transportation, exploration and exploitation of resources in and under the oceans are in the scope of the ISSC. The 20th International Ship and Offshore Structures Congress (ISSC 2018) was held in (Liège) Belgium and Amsterdam (The Netherlands), 9–14 September 2018. The first volume of the proceedings contains the eight Technical Committee reports presented and discussed at the conference and the second volume contains the reports of the eight Specialist Committees. This third volume contains the Official discusser's reports, written discussions and floor discussions, and the replies by the

committees.

This book addresses the concepts of material selection and analysis, choice of structural form, construction methods, environmental loads, health monitoring, non-destructive testing, and repair methodologies and rehabilitation of ocean structures. It examines various types of ocean and offshore structures, including drilling platforms, processing platforms and vessels, towers, sea walls and surge barriers, and more. It also explores the use of MEMS in offshore structures, with regard to military and oil exploration applications. Full-color figures as well as numerous solved problems and examples are included to help readers understand the applied concepts.

This book evaluates and compares risk regulation and safety management for offshore oil and gas operations in the United States, United Kingdom, Norway, and Australia. It provides an interdisciplinary approach with legal, technological, and sociological perspectives on their efforts to assess and prevent major accidents and improve safety performance offshore. Presented in three parts, the volume begins with a review of the technical, legal, behavioral, and sociological factors involved in designing, implementing, and enforcing a regulatory regime for industrial safety. It then evaluates the four regulatory regimes that encompass the cultural, legal, and other contextual factors that influence their design and

implementation, along with their reliance on industrial expertise and standards and the use of performance indicators. The final section presents an assessment of the resilience of the Norwegian regime and its capacity to keep pace with new technologies and emerging risks, respond to near miss incidents, encourage safety culture, incorporate vested rights of labor, and perform inspection and self-audit functions. This book is highly relevant for those in government, business, academia, and elsewhere in civil society who are involved in offshore safety issues, including regulatory authorities and industrial safety professionals.

This discerning and comprehensive work will be a useful entry point for students embarking on study in petroleum law. Academics will find this timely examination to be an indispensible overview of upstream operations. Practitioners will find this book

Northern Lights Against POPs tells the many-faceted scientific, policy, legal, and advocacy story that led to the Stockholm convention. Unique in its perspective, scope, and breadth, it reveals the key links among environmental and health science, international politics, advocacy, law, and global negotiations. Never before have public health concerns articulated by northern Indigenous peoples in Canada and throughout the circumpolar Arctic had such a direct impact on global policy-making. Authors show how research on POPs (persistent organic pollutants) in the Arctic from the mid-1980s influenced international negotiations and analyze the potential for the convention to be effective. Contributors include elected representatives, researchers,

civil servants, Indigenous people who participated in the negotiations, and scientists who provided the compelling Arctic data that prompted the United Nations Environment Programme to sponsor negotiations. Contributors include David Anderson (Minister of the Environment, Canada); Nigel Bankes (University of Calgary); John Buccini (Consultant, former chair of the Global POPs Negotiations); Sheila Watt-Cloutier (Inuit Circumpolar Conference-Canada); Barry Commoner, Paul Woods Bartlett, Holger Eisl, Kimberly Couchot (Center for the Biology of Natural Systems, Queens College, City University of New York); Eric Dewailly (Laval University); David Downie (Director of Educational Partnerships, Columbia Earth Institute, Columbia University, New York); Terry Fenge (Inuit Circumpolar Conference-Canada); Henry Huntington (Consultant, Anchorage) and Michelle Sparck (Circumpolar Conservation Union, Washington, D.C.); Harriet Kuhnlein, Laurie Chan (Centre for Indigenous Peoples' Nutrition and Environment, McGill University), and Olivier Receveur (formerly Centre for Indigenous Peoples' Nutrition and Environment, McGill University); Lars-Otto Reiersen (Arctic Monitoring and Assessment Programme Secretariat,Oslo); Henrik Selin (Massachusetts Institute of Technology); David Stone, Russell Shearer (Northern Contaminants Program, Department of Indian Affairs and Northern Development, Canada); Klaus Topfer (Executive Director, United Nations Environment Programme).

Proceedings of the NATO Advanced Study Institute on Advances in Berthing and Mooring of Ships and Offshore Structures, Trondheim, Norway, September 7-17, 1987

This volume offers a review of measures taken at different levels to prevent oil inputs to the North Sea from sources such as shipping and oil installations. A range of data from satellites, remote sensing, aerial surveillance, in-situ monitoring, oil spill sampling and beached bird

surveys presents a comprehensive portrait of trends in oil pollution over many years. Topics include Bonn Agreement-based actions to eliminate illegal and accidental pollution from ships, OSPAR monitoring of oil installations, EMSA CleanSeaNet activities, and an internationally approved common standard for oil spills presented by the Bonn-OSINet. A chapter on the role of the IMO in preventing oil pollution from ships provides an international context, while others discuss efforts being made at the national level. A decadal review of the state of the North Sea prepared by OSPAR supports the view that there has been a significant reduction of oil inputs to the sea. This thorough review addresses national and international agencies and government bodies, as well as policymakers and practitioners in the fields of shipping, ports and terminals, oil extraction and marine management. Further, it provides researchers with essential reference material on tools and techniques for monitoring oil pollution and offers a valuable resource for undergraduate and post-graduate students in the field of marine oil pollution.

In an increasingly complex and interlinked world, Malaysia's dependence on the seas will continue to be shaped by a multitude of new, constantly evolving and multifaceted issues and challenges. Claims and counterclaims of maritime features and territories, the jostling for influence and space among naval powers, depletion of marine resources, pollution of the oceans and marine environment, climate change, sea level rise, impact of global economic vagaries on the maritime industry will continue to dominate Malaysia's maritime agenda. These issues demand nuanced responses to ensure our manifold maritime interests are not compromised and the regional seas remain open for our use and for the benefit of the international community. Confronting and addressing them require proactive, creative and well

thought-out policies and positions to safeguard national economic, sovereign and strategic interests, and to ensure our seas remain clean, safe, secure and bountiful for current and future use.

The purpose of this monograph is to show how a compliant offshore structure in an ocean environment can be modeled in two and three di mensions. The monograph is divided into five parts. Chapter 1 provides the engineering motivation for this work, that is, offshore structures. These are very complex structures used for a variety of applications. It is possible to use beam models to initially study their dynamics. Chapter 2 is a review of variational methods, and thus includes the topics: princi ple of virtual work, D'Alembert's principle, Lagrange's equation, Hamil ton's principle, and the extended Hamilton's principle. These methods are used to derive the equations of motion throughout this monograph. Chapter 3 is a review of existing transverse beam models. They are the Euler-Bernoulli, Rayleigh, shear and Timoshenko models. The equa tions of motion are derived and solved analytically using the extended Hamilton's principle, as outlined in Chapter 2. For engineering purposes, the natural frequencies of the beam models are presented graphically as functions of normalized wave number and geometrical and physical pa rameters. Beam models are useful as representations of complex struc tures. In Chapter 4, a fluid

force that is representative of those that act on offshore structures is formulated. The environmental load due to ocean current and random waves is obtained using Morison's equa tion. The random waves are formulated using the Pierson-Moskowitz spectrum with the Airy linear wave theory.

The 1999 European Wind Energy Conference and Exhibition was organized to review progress, and present and discuss the wind energy business, technology and science for the future. The Proceedings contain a selection of over 300 papers from the conference. They represent a significant update to the understanding of this increasingly important field of energy generation and cover a full range of topics.

Papers presented at the Fourth International Symposium on Integrity of Offshore Structures, 2-3 July 1990, Kelvin Conference Centre, University of Glasgow, Scotland organized by the Department of Naval Architecture and Ocean Engineering and Mechanical Engineering.

This highly successful book brings together academic and practising lawyers to consider the key regulatory and contractual dimensions of the mature hydrocarbon province. Now in its second edition, the text has been fully updated. New chapters look at Energy Security, Law and Technology in the Oil Field and Acquisitions and Disposals.

A comprehensive overview of managing and assessing safety and functionality of ageing offshore structures and pipelines A significant proportion, estimated at over 50%, of the worldwide infrastructure of offshore structures and pipelines is in a life extension phase and is vulnerable to ageing processes. This book captures the central elements of the management of ageing offshore structures and pipelines in the life extension phase. The book gives an overview of: the relevant ageing processes and hazards; how ageing processes are managed through the life cycle, including an overview of structural integrity management; how an engineer should go about assessing a structure that is to be operated beyond its original design life, and how ageing can be mitigated for safe and effective continued operation. Key Features: Provides an understanding of ageing processes and how these can be mitigated. Applies engineering methods to ensure that existing structures can be operated longer rather than decommissioned unduly prematurely. Helps engineers performing these tasks in both evaluating the existing structures and maintaining ageing structures in a safe manner. The book gives an updated summary of current practice and research on the topic of the management of ageing structures and pipelines in the life extension phase but also meets the needs of structural engineering students and practicing offshore and structural engineers in oil & gas and engineering companies. In addition, it should be of value to regulators of the offshore industry.

This journal-like book series includes edited volumes to rapidly report and spread the latest technological results, new scientific discovery and valuable applied researches in the fields concerning offshore robotics as well as promote international academic exchange. We aim to make it one of the premier comprehensive academic publications of world offshore vehicle and

robotics community. The audience of the series will include the scholars, researchers, engineers and students who are interested in fields of autonomous marine vehicles and robotics, including autonomous surface vehicles, autonomous underwater vehicles, remote operation vehicles, marine bionics, marine vehicle modeling, guidance, navigation, control and cooperation and so on.

This book focuses on two areas of ice technology: the use of ice as a construction material and the problems caused by ice to constructions. In connection with describing past and potential future applications of using ice in construction, a detailed discussion on the mechanical properties of ice is given. A state of the art description on ice-making methods, melt protection, methods and reinforcement of ice with the materials are covered.

Safety and Reliability of Complex Engineered Systems contains the Proceedings of the 25th European Safety and Reliability Conference, ESREL 2015, held 7-10 September 2015 in Zurich, Switzerland. It includes about 570 papers accepted for presentation at the conference. These contributions focus on theories and methods in the area of risk, safety and

Essentials of Offshore Structures: Framed and Gravity Platforms examines the engineering ideas and offshore drilling platforms for exploration and production. This book offers a clear and acceptable demonstration of both the theory and application of the relevant procedures of structural, fluid, and geotechnical mechanics to offshore structures. It

Australian Offshore Laws brings together in one place a reference to all laws that apply to offshore Australian waters for the benefit of legal practitioners, regulators, academics and students. It demonstrates the unnecessary complexity of the Australian offshore legal regime and proposes, as a first step towards reform, a review of the Offshore Constitutional

Settlement of 1979 (OCS 1979). It discusses the manner of present drafting of such laws as many Commonwealth, State, and Territory laws apply offshore but few are drafted in a manner which identifies their limits or recognises their interaction with other offshore laws of with the OCS 1979.

UNDERWATER INSPECTION AND REPAIR FOR OFFSHORE STRUCTURES Benefit from a much-needed, up-to-date handbook on underwater inspection and repair processes and technologies Underwater Inspection and Repair for Offshore Structures fills a gap in the literature to provide an overview of the inspection and repair processes for both steel and concrete offshore structures. Authors and noted experts on the topic John V. Sharp and Gerhard Esdal guide readers through the reasons why inspection and repair are performed and how both are linked to the management of structural integrity, statutory requirements, and various types of damage. The book addresses critical topics, including the execution and planning of inspection and repair, the tools and methods used, and their deployment underwater. The authors put particular focus on steel and concrete offshore oil and gas installations, but the content is also applicable to the substructures of offshore wind turbines. Underwater Inspection and Repair for Offshore Structures is complementary to the authors' book Ageing and Life Extension of Offshore Structures, also from Wiley. This important book: Covers current inspection and monitoring techniques to evaluate existing structures Includes coverage of robotic (ROV) inspection and repair methods Provides an overview of repair and maintenance techniques applicable to the splash?zone and underwater operations Written for engineers, designers, and safety auditors working with offshore structures. Underwater Inspection and Repair for Offshore Structures is a comprehensive resource for understanding

how to effectively inspect and repair these vulnerable structures.