Pipeline Designs Using Abaqus

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Proceedings of the 6th International Conference on Industrial Engineering (ICIE 2020) Andrey A. Radionov 2021-05-02 This book highlights recent findings in industrial, manufacturing and mechanical engineering, and provides an overview of the state of the art in these fields, mainly in Russia and Eastern Europe. A broad range of topics and issues in modern engineering are discussed, including the dynamics of machines and working processes, friction, wear and lubrication in machines, surface transport and technological machines, manufacturing engineering of industrial facilities, materials engineering, metallurgy, control systems and their industrial applications, industrial mechatronics, automation and robotics. The book gathers selected papers presented at the 6th International Conference on Industrial Engineering (ICIE), held in Sochi, Russia in May 2020. The authors are experts in various fields of engineering, and all papers have been carefully reviewed. Given its scope, the book will be of interest to a wide readership, including mechanical and production engineers, lecturers in engineering disciplines, and engineering graduates.

Proceedings of the Canadian Society of Civil Engineering Annual Conference 2021 Scott Walbridge

Developments in the Analysis and Design of Marine Structures Jorgen Amdahl 2021-12-17 Developments in the Analysis and Design of Marine Structures is a collection of papers presented at MARSTRUCT 2021, the 8th International Conference on Marine Structures (by remote transmission, 7-9 June 2021, organised by the Department of Marine Technology of the Norwegian University of Science and Technology, Trondheim, Norway), and is essential reading for academics, engineers and professionals involved in the design of marine and offshore structures. The MARSTRUCT Conference series deals with Ship and Offshore Structures, addressing topics in the fields of: - Methods and Tools for Loads and Load Effects; - Methods and Tools for Strength Assessment; -

Experimental Analysis of Structures; - Materials and Fabrication of Structures; - Methods and Tools for Structural Design and Optimisation; and - Structural Reliability, Safety and Environmental Protection. The MARSTRUCT conferences series of started in Glasgow, UK in 2007, the second event of the series took place in Lisbon, Portugal in March 2009, the third in Hamburg, Germany in March 2011, the fourth in Espoo, Finland in March 2013, the fifth in Southampton, UK in March 2015, the sixth in Lisbon, Portugal in May 2017, and the seventh in Drubovnik, Croatia in May 2019. The 'Proceedings in Marine Technology and Ocean Engineering' series is dedicated to the publication of proceedings of peer-reviewed international conferences dealing with various aspects of 'Marine Technology and Ocean Engineering'. The Series includes the proceedings of the following conferences: the International Maritime Association of the Mediterranean (IMAM) conferences, the Marine Structures (MARSTRUCT) conferences, the Renewable Energies Offshore (RENEW) conferences and the Maritime Technology (MARTECH) conferences. The 'Marine Technology and Ocean Engineering' series is also open to new conferences that cover topics on the sustainable exploration and exploitation of marine resources in various fields, such as maritime transport and ports, usage of the ocean including coastal areas, nautical activities, the exploration and exploitation of mineral resources, the protection of the marine environment and its resources, and risk analysis, safety and reliability. The aim of the series is to stimulate advanced education and training through the wide dissemination of the results of scientific research.

Fatigue Design of Marine Structures Inge Lotsberg 2016-04-22 This is a theoretical and practical guide for fatigue design of marine structures including sailing ships and offshore oil structures.

Unsaturated Soil Mechanics - from Theory to Practice Zhenghan Chen 2015-10-14 In the past decades advances have been made in the research and practice on unsaturated soil mechanics. In 2000 the first Asia-Pacific Conferences on Unsaturated Soils was organized in Singapore. Since then, four conferences have been held under the continued support of the Technical Committee on Unsaturated Soils (TC106) of the International Socie

Deformation and Progressive Failure in Geomechanics T. Adachi 1997-11-06 Progressive failure has been a classical problem in the field of geotechnical engineering and has attracted considerable attention in connection with slope stability and foundation problems. It is associated with strain localization or shear banding and is also related to damage in material structures. As knowledge of the progressive failure mechanism increases, it is now necessary to establish effective communications between researchers and engineers. The International Symposium on Deformation and Progressive Failure in Geomechanics provided an opportunity for discussing recent advances in this area. A total of 136 papers were contributed from 22 countries. As well as these, the symposium proceedings also contain 8 interim technical reports on the subject by the members of the Asian Technical Committee of the International Society for Soil Mechanics and Foundation Engineering and the Japanese Geotechnical Society

National Committee on Progressive Failure in Geo-structures.

Integrity of Pipelines Transporting Hydrocarbons Gabriella Bolzon 2011-05-12 This book describes technical and practical aspects of pipeline damage. It summarizes the phenomena, mechanisms and management of pipeline corrosion in-service. The topics discussed include pipelines fracture mechanics, damage mechanisms and evolution, and pipeline integrity assessment. The concept of acceptable risk is also elucidated and the future application of new knowledge management tools is considered.

Analytical Methods in Petroleum Upstream Applications Cesar Ovalles 2015-04-02 Effective measurement of the composition and properties of petroleum is essential for its exploration, production, and refining; however, new technologies and methodologies are not adequately documented in much of the current literature. Analytical Methods in Petroleum Upstream Applications explores advances in the analytical methods and instrumentation that allow more accurate determination of the components, classes of compounds, properties, and features of petroleum and its fractions. Recognized experts explore a host of topics, including: A petroleum molecular composition continuity model as a context for other analytical measurements A modern modular sampling system for use in the lab or the process area to collect and control samples for subsequent analysis The importance of oil-in-water measurements and monitoring The chemical and physical properties of heavy oils, their fractions, and products from their upgrading Analytical measurements using gas chromatography and nuclear magnetic resonance (NMR) applications Asphaltene and heavy ends analysis Chemometrics and modeling approaches for understanding petroleum composition and properties to improve upstream, midstream, and downstream operations Due to the renaissance of gas and oil production in North America, interest has grown in analytical methods for a wide range of applications. The understanding provided in this text is designed to help chemists, geologists, and chemical and petroleum engineers make more accurate estimates of the crude value to specific refinery configurations, providing insight into optimum development and extraction schemes.

Proceedings of the 4th International Conference on Performance Based Design in Earthquake Geotechnical Engineering (Beijing 2022) Lanmin Wang 2022-10-21 The 4th International Conference on Performance-based Design in Earthquake Geotechnical Engineering (PBD-IV) is held in Beijing, China. The PBD-IV Conference is organized under the auspices of the International Society of Soil Mechanics and Geotechnical Engineering - Technical Committee TC203 on Earthquake Geotechnical Engineering and Associated Problems (ISSMGE-TC203). The PBD-I, PBD-II, and PBD-III events in Japan (2009), Italy (2012), and Canada (2017) respectively, were highly successful events for the international earthquake geotechnical engineering community. The PBD events have been excellent companions to the International Conference on Earthquake Geotechnical Engineering (ICEGE) series that TC203 has held in Japan (1995), Portugal (1999), USA (2004), Greece (2007), Chile (2011), New Zealand (2015), and Italy (2019). The goal of PBD-IV is to provide an open forum for delegates to

interact with their international colleagues and advance performance-based design research and practices for earthquake geotechnical engineering.

Mechanical Behavior of High-Strength Low-Alloy Steels Ricardo Branco 2018-10-12 This book is a printed edition of the Special Issue "Mechanical Behavior of High-Strength Low-Alloy Steels" that was published in Metals

Geohazards and Pipelines Spyros A. Karamanos 2020-10-31 This book presents state-of-the-art methodologies for the design and analysis of buried steel pipelines subjected to severe ground-induced action, including tectonic (quasi-static) effects, slope movements (landslides), liquefaction-induced actions or excavation-induced settlements. The text is an amended version of the final deliverables of the GIPIPE project, sponsored by the European Commission (Research Fund for Coal and Steel programme, 2011-2014). Geohazards and Pipelines presents an integrated investigation of this subject, using advanced and innovative experimental techniques, high-performance numerical simulations and novel analytical methodologies, which account for the particularities of buried steel pipelines with an emphasis on soil-pipeline interaction. Geohazards and Pipelines will be of use to professionals working in the field of pipeline engineering, including design consultants and industrial practitioners involved in projects related to pipeline infrastructure. Structural engineers, mechanical engineers, geotechnical engineers, geologists and seismologists may also find this book of interest, as may graduate students and researchers in these areas.

Proceedings of the 5th Indian Young Geotechnical Engineers Conference (5IYGEC) D L Shah 2015-03-14 Extended Abstracts of Research Papers Published in 5IYGEC: The 5th Indian Young Geotechnical Engineers Conference, organized by Indian Geotechnical Society to commemorate Silver Jubilee of IGS, Baroda Chapter.

Large Deformation Finite Element Analysis of Partially Embedded Offshore Pipelines for Vertical and Lateral Motion at Seabed Sujan Dutta 2012

Deepwater Foundations and Pipeline Geomechanics William O. McCarron 2011-09-15 Practicing engineers in the offshore and reservoir engineering industry will find this timely volume filled with practical advice and expert information on current oil field development from oil exploration to production.

Experimental and Numerical Modeling of Lateral Pipeline-trench Interaction Backfilled with Sand Mehdi Esmaeilzadeh 2019 Subsea pipelines are usually buried for physical protection in shallow waters. Pipelines may undergo large lateral displacements duce to ice gouging, ground movement, extreme thermal gradients, fish traps, pulling by anchors, etc. Sand backfills that have a different stiffness relative to the native ground are sometimes used for backfilling of the pipelines. The different stiffness of the sand backfill and the native ground affects the failure mechanism around the laterally moving pipe, and consequently the ultimate laterally mobilized soil resistance. This important effect is not considered by design codes in the lateral design of

pipelines due to less explored failure mechanisms in pipeline-backfill-trench interaction process. In the current study, the lateral interaction between trenched pipeline backfilled with loose sand was investigated by performing centrifuge model tests. Soft slurry and lose sand backfills were used to facilitate investigation of the backfill stiffness effect. Transparent observation window was used with digital cameras to conduct Particle Image Velocimetry (PIV) and capture the internal soil deformation mechanisms. State-of-the-art instrumentation was used to collect high-quality data from the pipe, backfill, and trench. Partially drained condition was adopted to allow for full development of interaction mechanisms. Advanced numerical simulation of the conducted the tests was also conducted by using Coupled Eulerian-Lagrangian (CEL) analysis and built-in constitutive soil models in ABAQUS/Explicit. The study showed the significant influence of the relative backfill-trench stiffness on the lateral response of pipeline to large displacements. Comparisons with design codes revealed that the proposed equations by design code underestimate the lateral response inside the backfill, overestimate the lateral response for pipe penetrating into the trench wall, and propose no prediction for the pipe approaching the trench wall.

Physical Modelling in Geotechnics, Two Volume Set Sarah Springman 2010-06-17 This book results from the 7th ICPMG meeting in Zurich 2010 and covers a broad range of aspects of physical modelling in geotechnics, linking across to other modelling techniques to consider the entire spectrum required in providing innovative geotechnical engineering solutions. Topics presented at the conference: Soil – Structure – Interaction; Natural Hazards; Earthquake Engineering: Soft Soil Engineering; New Geotechnical Physical; Modelling Facilities; Advanced Experimental Techniques; Comparisons between Physical and Numerical Modelling Specific Topics: Offshore Engineering; Ground Improvement and Foundations; Tunnelling, Excavations and Retaining Structures; Dams and slopes; Process Modelling; Goenvironmental Modelling; Education

Electromagnetic Ultrasonic Guided Waves Songling Huang 2016-03-18 This book introduces the fundamental theory of electromagnetic ultrasonic guided waves, together with its applications. It includes the dispersion characteristics and matching theory of guided waves; the mechanism of production and theoretical model of electromagnetic ultrasonic guided waves; the effect mechanism between guided waves and defects; the simulation method for the entire process of electromagnetic ultrasonic guided wave propagation; electromagnetic ultrasonic thickness measurement; pipeline axial guided wave defect detection; and electromagnetic ultrasonic guided wave detection of gas pipeline cracks. This theory and findings on applications draw on the author’s intensive research over the past eight years. The book can be used for nondestructive testing technology and as an engineering reference work. The specific implementation of the electromagnetic ultrasonic guided wave system presented here will also be of value for other nondestructive test developers.

Ground Improvement and Earth Structures Mounir Bouassida 2017-07-11 This volume contains research articles that cover a wide range of topics related to ground

improvement and subsurface structures. Selected papers represent the state-of-the-art in the analysis and design of reinforced retaining walls, diaphragm walls and buried pipes. In addition, topics related to ground improvement using vacuum consolidation and deep mixing techniques are also included. This volume is part of the proceedings of the 1st GeoMEast International Congress and Exhibition on Sustainable Civil Infrastructures, Egypt 2017.

Frontiers in Offshore Geotechnics II Susan Gourvenec 2010-10-04 Frontiers in Offshore Geotechnics II comprises the Proceedings of the Second International Symposium on Frontiers in Offshore Geotechnics (ISFOG), organised by the Centre for Offshore Foundation Systems (COFS) and held at the University of Western Australia (UWA), Perth from 8 10 November 2010. The volume addresses current and emerging challenges

Challenges and Innovations in Geomechanics Marco Barla 2021-01-14 This book gathers the latest advances, innovations, and applications in the field of computational geomechanics, as presented by international researchers and engineers at the 16th International Conference of the International Association for Computer Methods and Advances in Geomechanics (IACMAG 2020/21). Contributions include a wide range of topics in geomechanics such as: monitoring and remote sensing, multiphase modelling, reliability and risk analysis, surface structures, deep structures, dams and earth structures, coastal engineering, mining engineering, earthquake and dynamics, soil-atmosphere interaction, ice mechanics, landfills and waste disposal, gas and petroleum engineering, geothermal energy, offshore technology, energy geostructures, geomechanical numerical models and computational rail geotechnics.

Design and Analysis of Pressure Vessels, Piping, and Components, 1992 American Society of Mechanical Engineers. Pressure Vessels and Piping Division 1992

Flexible Pipes Qiang Bai 2017-03-31 Recent changes in the codes for building pipelines has led to a boom in the production of new materials that can be used in flexible pipes. With the use of polymers, steel, and other new materials and variations on existing materials, the construction and, therefore, the installation and operation of flexible pipes is changing and being improved upon all over the world. The authors of this work have written numerous books and papers on these subjects and are some of the most influential authors on flexible pipes in the world, contributing much of the literature on this subject to the industry. This new volume is a presentation of some of the most cutting-edge technological advances in technical publishing. This is the most comprehensive and in-depth book on this subject, covering not just the various materials and their aspects that make them different, but every process that goes into their installation, operation, and design. The thirty-six chapters, divided up into four different parts, have had not just the authors of this text but literally dozens of other engineers who are some of the world's leading scientists in this area contribute to the work. This is the future of pipelines, and it is an important breakthrough. A must-have for the veteran

engineer and student alike, this volume is an important new advancement in the energy industry, a strong link in the chain of the world’s energy production.

Applications of Artificial Intelligence (AI) and Machine Learning (ML) in the Petroleum Industry Manan Shah 2022-09-02 Today, raw data on any industry is widely available. With the help of artificial intelligence (AI) and machine learning (ML), this data can be used to gain meaningful insights. In addition, as data is the new raw material for today’s world, AI and ML will be applied in every industrial sector. Industry 4.0 mainly focuses on the automation of things. From that perspective, the oil and gas industry is one of the largest industries in terms of economy and energy. Applications of Artificial Intelligence (AI) and Machine Learning (ML) in the Petroleum Industry analyzes the use of AI and ML in the oil and gas industry across all three sectors, namely upstream, midstream, and downstream. It covers every aspect of the petroleum industry as related to the application of AI and ML, ranging from exploration, data management, extraction, processing, real-time data analysis, monitoring, cloud-based connectivity system, and conditions analysis, to the final delivery of the product to the end customer, while taking into account the incorporation of the safety measures for a better operation and the efficient and effective execution of operations. This book explores the variety of applications that can be integrated to support the existing petroleum and adjacent sectors to solve industry problems. It will serve as a useful guide for professionals working in the petroleum industry, industrial engineers, AI and ML experts and researchers, as well as students.

Pipeline Engineering Symposium 1987

Subsea Pipeline Design, Analysis, and Installation Qiang Bai 2014-02-18 As deepwater wells are drilled to greater depths, pipeline engineers and designers are confronted with new problems such as water depth, weather conditions, ocean currents, equipment reliability, and well accessibility. Subsea Pipeline Design, Analysis and Installation is based on the authors' 30 years of experience in offshore. The authors provide rigorous coverage of the entire spectrum of subjects in the discipline, from pipe installation and routing selection and planning to design, construction, and installation of pipelines in some of the harshest underwater environments around the world. All-inclusive, this must-have handbook covers the latest breakthroughs in subjects such as corrosion prevention, pipeline inspection, and welding, while offering an easy-to-understand guide to new design codes currently followed in the United States, United Kingdom, Norway, and other countries. Gain expert coverage of international design codes Understand how to design pipelines and risers for today's deepwater oil and gas Master critical equipment such as subsea control systems and pressure piping

Design and Analysis of Pressure Vessels, Heat Exchangers, and Piping Components--2004 M. A. Porter 2004

Guidelines for the Seismic Design of Oil and Gas Pipeline Systems American

Society of Civil Engineers. Committee on Gas and Liquid Fuel Lifelines 1984

Deepwater Flexible Risers and Pipelines Yong Bai 2021-02-03 The technology, processes, materials, and theories surrounding pipeline construction, application, and troubleshooting are constantly changing, and this new series, Advances in Pipes and Pipelines,, has been created to meet the needs of engineers and scientists to keep them up to date and informed of all of these advances. This second volume in the series focuses on flexible pipelines, risers, and umbilicals, offering the engineer the most thorough coverage of the state-of-the-art available. The authors of this work have written numerous books and papers on these subjects and are some of the most influential authors on flexible pipes in the world, contributing much of the literature on this subject to the industry. This new volume is a presentation of some of the most cutting-edge technological advances in technical publishing. The first volume in this series, published by Wiley-Scrivener, is Flexible Pipes, available at www.wiley.com. Laying the foundation for the series, it is a groundbreaking work, written by some of the world's foremost authorities on pipes and pipelines. Continuing in this series, the editors have compiled the second volume, equally as groundbreaking, expanding the scope to pipelines, risers, and umbilicals. This is the most comprehensive and in-depth series on pipelines, covering not just the various materials and their aspects that make them different, but every process that goes into their installation, operation, and design. This is the future of pipelines, and it is an important breakthrough. A must-have for the veteran engineer and student alike, this volume is an important new advancement in the energy industry, a strong link in the chain of the world's energy production

Multiphysics Modelling and Simulation for Systems Design and Monitoring Mohamed Haddar 2015-01-03 This book reports on the state of the art in the field of multiphysics systems. It consists of accurately reviewed contributions to the MMSSD'2014 conference, which was held from December 17 to 19, 2004 in Hammamet, Tunisia. The different chapters, covering new theories, methods and a number of case studies, provide readers with an up-to-date picture of multiphysics modeling and simulation. They highlight the role played by high-performance computing and newly available software in promoting the study of multiphysics coupling effects, and show how these technologies can be practically implemented to bring about significant improvements in the field of design, control and monitoring of machines. In addition to providing a detailed description of the methods and their applications, the book also identifies new research issues, challenges and opportunities, thus providing researchers and practitioners with both technical information to support their daily work and a new source of inspiration for their future research.

Issues in Engineering Research and Application: 2011 Edition 2012-01-09 Issues in Engineering Research and Application: 2011 Edition is a ScholarlyEditions™ eBook that delivers timely, authoritative, and comprehensive information about Engineering Research and Application. The editors have built Issues in Engineering Research and Application: 2011 Edition on the vast information

databases of ScholarlyNews.™ You can expect the information about Engineering Research and Application in this eBook to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of Issues in Engineering Research and Application: 2011 Edition has been produced by the world's leading scientists, engineers, analysts, research institutions, and companies. All of the content is from peer-reviewed sources, and all of it is written, assembled, and edited by the editors at ScholarlyEditions™ and available exclusively from us. You now have a source you can cite with authority, confidence, and credibility. More information is available at http://www.ScholarlyEditions.com/.

Soil Dynamics and Soil-Structure Interaction for Resilient Infrastructure Tarek Abdoun 2017-07-11 Infrastructure is the key to creating a sustainable community. It affects our future well-being as well as the economic climate. Indeed, the infrastructure we are building today will shape tomorrow's communities. GeoMEast 2017 created a venue for researchers and practitioners from all over the world to share their expertise to advance the role of innovative geotechnology in developing sustainable infrastructure. This volume focuses on the role of soil-structure-interaction and soil dynamics. It discusses case studies as well as physical and numerical models of geo-structures. It covers: Soil-Structure-Interaction under static and dynamic loads, dynamic behavior of soils, and soil liquefaction. It is hoped that this volume will contribute to further advance the state-of-the-art for the next generation infrastructure. This volume is part of the proceedings of the 1st GeoMEast International Congress and Exhibition on Sustainable Civil Infrastructures, Egypt 2017.

Structural and Thermal Analyses of Deepwater Pipes Chen An 2020-10-28 This book focuses on advanced methods for the structural and thermal analysis of deepwater pipelines and risers. It discusses the limit strength of sandwich pipes, including finite-element analysis using Python scripts, collapse of sandwich pipes with cementitious/polymer composites, buckle propagation of sandwich pipes, dynamic behavior of subsea pipes, flow-induced vibration of functionally graded pipes, two-phase flow-induced vibration of pipelines, vortex-induced vibration of free-spanning pipelines, and the thermal analysis of composites pipes with passive insulation, active heating, and phase change material layers. It also explores structural analysis using finite element analysis and the integral transform technique for fluid-structure interaction. Lastly, the use of lumped parameter formulations combined with finite differences for the thermal analysis of pipelines is examined.

Ships and Offshore Structures XIX Carlos Guedes Soares 2015-09-03 This three-volume work presents the proceedings from the 19th International Ship and Offshore Structures Congress held in Cascais, Portugal on 7th to 10th September 2015. 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

Advances in Design, Simulation and Manufacturing IV Vitalii Ivanov 2021-05-25 This book reports on topics at the interface between manufacturing and materials engineering, with a special emphasis on product design and advanced manufacturing processes, intelligent solutions for Industry 4.0, covers topics in ICT for engineering education, describes the numerical simulation and experimental studies of milling, honing, burnishing, grinding, boring, and turning, as well as the development and implementation of advanced materials. Based on the 4th International Conference on Design, Simulation, Manufacturing: The Innovation Exchange (DSMIE-2021), held on June 8-11, 2021, in Lviv, Ukraine, this first volume of a 2-volume set provides academics and professionals with extensive information on trends, technologies, challenges and practice-oriented experience in the above-mentioned areas.

Subsea Pipelines and Risers Yong Bai 2005-12-19 Marine pipelines for the transportation of oil and gas have become a safe and reliable part of the expanding infrastructure put in place for the development of the valuable resources below the world's seas and oceans. The design of these pipelines is a relatively new technology and continues to evolve as the design of more cost effective pipelines becomes a priority and applications move into deeper waters and more hostile environments. This updated edition of a best selling title provides the reader with a scope and depth of detail related to the design of offshore pipelines and risers not seen before in a textbook format. With over 25years experience, Professor Yong Bai has been able to assimilate the essence of the applied mechanics aspects of offshore pipeline system design in a form of value to students and designers alike. It represents an excellent source of up to date practices and knowledge to help equip those who wish to be part of the exciting future of this industry.

Oil and Gas Pipelines R. Winston Revie 2015-04-01 A comprehensive and detailed reference guide on the integrity and safety of oil and gas pipelines, both onshore and offshore Covers a wide variety of topics, including design, pipe manufacture, pipeline welding, human factors, residual stresses, mechanical damage, fracture and corrosion, protection, inspection and monitoring, pipeline cleaning, direct assessment, repair, risk management, and abandonment Links modern and vintage practices to help integrity engineers better understand their system and apply up-to-date technology to older infrastructure Includes case histories with examples of solutions to complex problems related to pipeline integrity Includes chapters on stress-based and strain-based design, the latter being a novel type of design that has only recently been investigated by designer firms and regulators Provides information to help those who are responsible to establish procedures for ensuring pipeline integrity and safety

Understanding and Reducing Landslide Disaster Risk Željko Arbanas 2020-12-20 This book is a part of ICL new book series “ICL Contribution to Landslide Disaster Risk Reduction” founded in 2019. Peer-reviewed papers submitted to the Fifth World Landslide Forum were published in six volumes of this book series. This book contains the following parts: • Impact of Large Ground Deformations

near Seismic Faults on Critically Important Civil Infrastructures• Recent Progress in the Landslide Initiating Science• Earth Observation and Machine Learning in Landslide Science• General Landslide Studies Professor Željko Arbanas is the Vice President of International Consortium on Landslides. He is a Professor of Faculty of Civil Engineering, University of Rijeka, Croatia. He is the Assistant Editor-in-Chief of International Journal Landslides. Professor Peter Bobrowsky is the President of International Consortium on Landslides. He is a Senior Scientist of Geological Survey of Canada, Ottawa, Canada. Professor Kazuo Konagai is Professor Emeritus at the University of Tokyo and Principal Researcher at the ICL Headquarters. He serves as the Secretary-General of the Fifth World Landslide Forum. Professor Kyoji Sassa is the Founding President and the Secretary-General of the International Consortium on Landslides (ICL). He has been the Editor-in-Chief of International Journal Landslides since its foundation in 2004. Professor Kaoru Takara is the Executive Director of International Consortium on Landslides. He is a Professor and Dean of Graduate School of Advanced Integrated Studies (GSAIS) in Human Survivability (Shishu-Kan), Kyoto University.

Pipelines and Risers Yong Bai 2001-02-07 Pipelines and Risers

Design and Analysis of Piping, Vessels, and Components--2002 Artin A. Dermenjian 2002 Annotation This volume of proceedings from the August 2002 conference consists of 26 technical papers from six sessions on the design and analysis of pressure vessels, heat exchangers, piping, and components. Among the topics are a structural evaluation of a piping system subject to thermal stratification, dynamic pipe stresses during water hammer, and fatigue life prediction for short dents in petroleum pipelines. Other topics include the design of ellipsoidal heads using elastic finite element analysis, vibration modes of spherical shells and containment vessels, and convergence of the axisymmetric Bessel function solution to the pipe strap anchor problem. No subject index. Annotation c. Book News, Inc., Portland, OR (booknews.com).

Mechanics of Unsaturated Geomaterials Lyesse Laloui 2013-03-04 This book provides a sound basis in the challenging area of the mechanics of unsaturated geomaterials. The objective is to supply the reader with an exhaustive overview starting from the basics and covering the most recent theories and applications (i.e. natural disasters, nuclear waste disposal, oil and agriculture productions). The presentation of the fundamental concepts is based on an interdisciplinary approach, in the areas of soil, rock and cement-based material mechanics.