

# Detailed Design Engineering Procurement And Construction

Part I: Process design -- Introduction to design -- Process flowsheet development -- Utilities and energy efficient design -- Process simulation -- Instrumentation and process control -- Materials of construction -- Capital cost estimating -- Estimating revenues and production costs -- Economic evaluation of projects -- Safety and loss prevention -- General site considerations -- Optimization in design -- Part II: Plant design -- Equipment selection, specification and design -- Design of pressure vessels -- Design of reactors and mixers -- Separation of fluids -- Separation columns (distillation, absorption and extraction) -- Specification and design of solids-handling equipment -- Heat transfer equipment -- Transport and storage of fluids.

Each engineering task is described and illustrated with a sample document taken from a real project. --

This book is a step-by-step practical guide on how to achieve successful projects in EPC/turnkey contracting and construction. Mapping out the shape of a project, the book spells out where things often go wrong, where and why disputes arise, and how to avoid conflicts. It is a key reference point for all involved in the contract, making it attractive to legal practitioners, construction industry professionals, and government officials involved with these projects.

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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 Effective risk and opportunity management is key to the successful delivery of any major engineering and construction project. This book looks at how all those involved can manage risk and capitalise on the opportunities that uncertainty present. The authors of this book highlight that uncertainties should be managed rather than avoided. This book will look at simple projects with a small team, to megaprojects where some hundreds of people are involved, and the consequences of delays or

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unforeseen costs. However, while the obvious risks can be planned for, the authors argue that it is often the opportunities in these situations that can have unexploited potential. This book is about opportunity management seen from the owner's perspective. It will be an invaluable resource for those studying Engineering both undergraduate and postgraduate and set out ways in which projects should be managed from planning to completion. This book is also a great tool for those working in project management and the construction industry. While there are many books that demonstrate effective construction management, this book is the first of its kind to emphasise that there is opportunity in uncertainty, and possibility in the unexpected.

This book explores sustainability engineering through the lens of the manufacturing and chemical process industries to elucidate the safe and economic implementation of process designs used to transform raw materials into useful finished products. The author applies the tenets of sustainability science to develop an engineering methodology that supports the perpetual availability of raw materials through recycling/reuse/repurposing, incorporates inexhaustible supplies, such as solar energy and municipal waste, and encompasses the husbandry of these resources in a manner that minimizes negative environmental impacts. Anyone involved in the design or manufacture of chemicals, or the upgrade of existing manufacturing processes, will benefit from this book's suggestions for identifying improvement options, while

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adding the pivotal aspect of sustainability to the usual cost and safety equation optimization elements.

The perfect guide for veteran structural engineers or for engineers just entering the field of offshore design and construction, *Marine Structural Design Calculations* offers structural and geotechnical engineers a multitude of worked-out marine structural construction and design calculations. Each calculation is discussed in a concise, easy-to-understand manner that provides an authoritative guide for selecting the right formula and solving even the most difficult design calculation. Calculation methods for all areas of marine structural design and construction are presented and practical solutions are provided. Theories, principles, and practices are summarized. The concentration focuses on formula selection and problem solving. A “quick look up guide”, *Marine Structural Design Calculations* includes both fps and SI units and is divided into categories such as Project Management for Marine Structures; Marine Structures Loads and Strength; Marine Structure Platform Design; and Geotechnical Data and Pile Design. The calculations are based on industry code and standards like American Society of Civil Engineers and American Society of Mechanical Engineers, as well as institutions like the American Petroleum Institute and the US Coast Guard. Case studies and worked examples are included throughout the book. Calculations are based on industry code and standards such as American Society of Civil Engineers and American Society of Mechanical Engineers Complete

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chapter on modeling using SACS software and PDMS software Includes over 300 marine structural construction and design calculations Worked-out examples and case studies are provided throughout the book Includes a number of checklists, design schematics and data tables

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[A Reference for Professionals](#)

[Lean and Beyond for Engineering, Procurement, and Construction](#)

[Hearings Before a Subcommittee of the Committee on Appropriations, House of Representatives, One Hundred Ninth Congress, Second Session](#)

[Effective Project Management Through Applied Cost and Schedule Control](#)

**If you are a project engineer and new to engineering, procurement and construction, then this book is for you. It is short and concise and will give you an overview of a typical project organization. This is the first book in a**

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series of books written by me.

**Avoid common pitfalls in large-scale projects using these smart strategies** Over half of large-scale engineering and construction projects—off-shore oil platforms, chemical plants, metals processing, dams, and similar projects—have miserably poor results. These include billions of dollars in overruns, long delays in design and construction, and poor operability once finally completed. **Industrial Megaprojects** gives you a clear, nontechnical understanding of why these major projects get into trouble, and how your company can prevent hazardous and costly errors when undertaking such large technical and management challenges. Clearly explains the underlying causes of over-budget, delayed, and unsafe megaprojects Examines effects of poor project management, destructive team behaviors, weak accountability systems, short-term focus, and lack of investment in technical expertise Author is the CEO of the leading consulting firm for evaluating billion-dollar projects Companies worldwide are rethinking their large-scale projects. **Industrial Megaprojects** is your essential guide for this rethink, offering the tools and principles that are the true foundation of safe, cost-effective, successful megaprojects.

**Product and Process Design: Driving Innovation** is a comprehensive textbook for students and industrial professionals. It treats the combined design of innovative products and their innovative manufacturing processes, providing specific methods for BSc, MSc, PDEng and PhD courses. Students, industrial innovators and managers are guided through all design steps in all innovation stages

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(discovery, concept, feasibility, development, detailed engineering, and implementation) to successfully obtain novel products and their novel processes. The authors' decades of innovation experience in industry, as well as in teaching BSc, MSc, and post-academic product and process design courses, thereby including the latest design publications, culminate in this book.

Sales and marketing professionals in the upstream oil and gas sector want to know their customer, but in an industry so complicated, that is not always easy. J. Denver Smart, who has worked in the upstream oil and gas sector for a leading global automation solutions provider, provides a consolidated overview of upstream processing, key operations, and business drivers that are relevant to day-to-day operator challenges in this reference guide. Topics covered include: the primary market drivers and business parameters that affect the short- and long-term economic viability of upstream operators; market indicators used to assess current and regional industry trends; various lifecycle stages of an oilfield and how they influence primary business objectives; and basic elements, principles, operations, and procedures to understand the diverse concepts associated with finding, extracting, and producing oil and gas reserves.

For newly hired young engineers assigned to their first real 'project', there has been little to offer in the way of advice on 'where to begin', 'what to look out for and avoid', and 'how to get the job done right'. This book gives this advice from an author with long experience as senior engineer in government and industry (U.S. Army Corps of Engineers and Exxon-Mobil). Beginning with guidance on

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understanding the typical organizational structure of any type of technical firm or company, author Plummer incorporates numerous hands-on examples and provides help on getting started with a project team, understanding key roles, and avoiding common pitfalls. In addition, he offers unique help on first-time experiences of working in other countries with engineering cultures that can be considerably different from the US. Reviews essentials of management for any new engineer suddenly thrust into responsibility Emphasizes skills that can get you promoted—and pitfalls that can get you fired Expanded case study to show typical evolution of a new engineer handed responsibility for a major design project

Chemical Engineering Design is one of the best-known and most widely adopted texts available for students of chemical engineering. It completely covers the standard chemical engineering final year design course, and is widely used as a graduate text. The hallmarks of this renowned book have always been its scope, practical emphasis and closeness to the curriculum. That it is written by practicing chemical engineers makes it particularly popular with students who appreciate its relevance and clarity. Building on this position of strength the fifth edition covers the latest aspects of process design, operations, safety, loss prevention and equipment selection, and much more. Comprehensive in coverage, exhaustive in detail, and supported by extensive problem sets at the end of each chapter, this is a book that students will want to keep to hand as they enter their professional life. The leading chemical engineering design text with over 25 years of established market leadership to back it

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**up; an essential resource for the compulsory design project all chemical engineering students take in their final year A complete and trusted teaching and learning package: the book offers a broader scope, better curriculum coverage, more extensive ancillaries and a more student-friendly approach, at a better price, than any of its competitors Endorsed by the Institution of Chemical Engineers, guaranteeing wide exposure to the academic and professional market in chemical and process engineering. The field of chemical engineering is undergoing a global “renaissance,” with new processes, equipment, and sources changing literally every day. It is a dynamic, important area of study and the basis for some of the most lucrative and integral fields of science. Introduction to Chemical Engineering offers a comprehensive overview of the concept, principles and applications of chemical engineering. It explains the distinct chemical engineering knowledge which gave rise to a general-purpose technology and broadest engineering field. The book serves as a conduit between college education and the real-world chemical engineering practice. It answers many questions students and young engineers often ask which include: How is what I studied in the classroom being applied in the industrial setting? What steps do I need to take to become a professional chemical engineer? What are the career diversities in chemical engineering and the engineering knowledge required? How is chemical engineering design done in real-world? What are the chemical engineering computer tools and their applications? What are the prospects, present and future challenges of chemical engineering? And so on. It also provides the information**

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**new chemical engineering hires would need to excel and cross the critical novice engineer stage of their career. It is expected that this book will enhance students understanding and performance in the field and the development of the profession worldwide. Whether a new-hire engineer or a veteran in the field, this is a must—have volume for any chemical engineer’s library.**

**[Sustainability Engineering](#)**

**[The Oil and Gas Engineer...](#)**

**[Natural Gas Processing](#)**

**[Driving Innovation](#)**

**[Subsea Pipeline Design, Analysis, and Installation](#)**

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**[Principles, Practice and Economics of Plant and Process Design](#)**

**[Transnational Corporations in the Construction and Design Engineering Industry](#)**

**[Process Intensification](#)**

**[Marine Structural Design Calculations](#)**

**[Evidence-based Best Practices and Guidelines](#)**

*Applying the principles in this book unleashes ingenuity that achieves, solidifies and perpetuates a new performance culture of mutual benefit. In this culture, project teams will prepare their work in task packages and enable workflow necessary to leave inefficiency of time and resource, literally, no place to hide. Project examples will help teams implement the principles that shorten cycle times, eliminate error, improve quality and reduce costs to succeed in meeting*

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*project commitments. Emerging Lean enterprise relationships between clients, EPC contractors and their entire supply chain will advance what constitutes the new, market-differentiating performance of individuals, project teams and companies - justifying high levels of trust and inter-organizational efforts to improve. Client executives will learn to recognize root causes of risk and sources of excellence to mitigate them. Well-developed strategic improvement is often constrained because the traditional way - current means and methods - fit squarely in everyone's comfort zone. By learning to ask the right questions, top-client leadership will soon render overruns from the best traditional systems as "not-good enough" and strive for a new level of excellence. EPC executives will better engage creative voices from their best resources and stakeholders to resolve all concerns and define a unified vision for how to deliver on clients' expectations without overruns during capital project delivery. Lean methods will effectively assure that vision, principles and best expectations are understood and implemented at the workplace. Department, discipline and stakeholder leaders will align and no longer frustrate each other and their clients. They will plan and execute with increased efficiency and effectiveness. Cost reduction will accelerate, retaining only client-valued quality - enabling a nimble response to market opportunities and threats. Project and program managers will confidently accept intense, market-induced cost and schedule-reduction efforts. They will apply new metrics, measure potential and extract, align and pilot improvements. They will make workplace progress transparent to simplify resource balancing, full utilization and workplace flow during all project phases. The results will differentiate team members and their project's performance on the world stage. Project professionals and the skilled labor force will gain confidence to make and keep increasingly difficult commitments and*

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*experience thereby increasing opportunity in an organization known for excellence. They will fully engage heart and mind for leaders who expect excellence and they trust to enable and reward best practice performance while they jointly eliminate root causes of problems before they happen. This book guides readers through each essential role for the transformation to Lean...not just at the lowest levels but of the entire business model and all the supporting processes. Resulting market recognition of sustained excellence of people, their systems and they way they work together will create a market-leading force.*

*The book is developed to provide significant information and guidelines to construction and project management professionals (owners, designers, consultants, construction managers, project managers, supervisors, contractors, builders, developers, and many others from the construction-related industry) involved in construction projects (mainly civil construction projects, commercial-A/E projects) and construction-related industries. It covers the importance of construction management principles, procedures, concepts, methods, and tools, and their applications to various activities/components/subsystems of different phases of the life cycle of a construction project. These applications will improve the construction process in order to conveniently manage the project and make the project most qualitative, competitive, and economical. It also discuss the interaction and/or combination among some of the activities/elements of management functions, management processes, and their effective implementation and applications that are essential throughout the life cycle of project to conveniently manage the project. This handbook will: Focus on the construction management system to manage construction projects Include a number of figures and tables which will enhance reader comprehension Provide all related topics/areas of*

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*construction management Be of interest to all those involved in construction management and project management Provide information about Building Information Modeling (BIM), and ISO Certification in Construction Industry Offer a chapter on Lean construction The construction project life cycle phases and its activities/elements/subsystems are comprehensively developed and take into consideration Henri Fayol's Management Function concept which was subsequently modified by Koontz and O'Donnel and Management Processes Knowledge Areas described in PMBOK® published by Project Management Institute (PMI). The information available in the book will also prove valuable for academics/instructors to provide construction management/project management students with in-depth knowledge and guidelines followed in the construction projects and familiarize them with construction management practices.*

*Instrument Engineers' Handbook, Third Edition: Volume Three: Process Software and Digital Networks provides an in-depth, state-of-the-art review of existing and evolving digital communications and control systems. While the book highlights the transportation of digital information by buses and networks, the total coverage doesn't stop there. It describes a variety of process-control software packages suited for plant optimization, maintenance, and safety related applications. In addition, topics include plant design and modernization, safety and operations related logic systems, and the design of integrated workstations and control centers. The book concludes with an appendix providing practical information such as bidders lists and addresses, steam tables, materials selection for corrosive services, and much more. If you buy the three-volume set of the Instrument Engineers Handbook, you will have everything a process control engineer or instrumentation technician needs. If you*

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*buy this volume, you will have at your fingertips all the software and digital network related information that is needed by I&C engineers. It will be the resource you reach for over and over again.*

*Students and professionals encountering estimating for the first time need an approachable introduction to its principles and techniques, which is up to date with current practice. Introduction to Estimating for Construction explains both the traditional techniques, and best practice in early contractor involvement situations, within the framework of modern construction procurement. As well as introducing different estimating techniques, it includes: The nature of costs in construction from a cost of resources approach Modern tendering procedures and the stages of development of construction projects How to convert an estimate into a formal tender and then into a contract Simple numerical examples of estimates Estimating and cost analysis during the construction project Summaries and discussion questions in every chapter This is an easy to read introduction to building estimating for undergraduate students, or anyone working in a quantity surveying or construction commercial management role who needs a quick reference.*

*This book provides the tools and techniques, management principles, procedures, concepts, and methods to ensure the successful completion of an oil and gas project while also ensuring the proper design, procurement, and construction for making the project most qualitative, competitive, and economical for safer operational optimized performance. It discusses quality during design, FEED, detailed engineering, selection of project teams, procurement procedure of EPC contract, managing quality during mobilization, procurement, execution, planning, scheduling, monitoring, control, quality, and testing to achieve the desired results for an oil and gas project. This book provides all the related information to*

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*professional practitioners, designers, consultants, contractors, quality managers, project managers, construction managers, and academics/instructors involved in oil and gas projects and related industries. Features Provides information on the various quality tools used to manage construction projects from inception to handover Discusses the life cycle phases, developed on systems engineering approach, and how it is divided into manageable activity/element/components segments to manage and control the project Includes a wide range of tools, techniques, principles, and procedures used to address quality management Covers quality management systems and development of quality management systems manuals Discusses quality and risk management, and health, safety, and environmental management during the design and construction process*

*This book is not a traditional book on sales. The focus is tactical as well as strategic. The book combines sales tactics and company strategy in a unique way and shows how they must complement each other for true success.*

*Unlike most engineers, system engineers focus on the knowledge base needed to develop good systems in a cross-functional fashion rather than deeply on isolated topics. They are often said to be a mile wide and an inch deep in what they do know. System Synthesis: Product and Process Design provides insight into complex problems, focusing on the boun*

[The Owner's Perspective](#)

[Manage Risks Effectively - Stop the Losses](#)

[Handbook of Construction Management](#)

[A Practical Guide to Engineering, Procurement and Construction Contracts](#)

[A Publication of the American Association of Cost Engineers](#)

[A Design Guide for the Chemical Process Industry](#)

[How to Sell Engineered Products](#)

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[Energy and Water Development Appropriations for 2007 Project Management](#)

[Hearing Before a Subcommittee of the Committee on Appropriations, United States Senate, One Hundred Ninth Congress, Second Session](#)

[Introduction to Estimating for Construction](#)

[Handshake, Issue number 13](#)

[Scope, Schedule, and Cost Control](#)

The offshore industry continues to drive the oil and gas market into deeper drilling depths, more advanced subsea systems, and cross into multiple disciplines to further technology and equipment. Engineers and managers have learned that in order to keep up with the evolving market, they must have an all-inclusive solution reference.

Subsea Engineering Handbook, Second Edition remains the go-to source for everything related to offshore oil and gas engineering. Enhanced with new information spanning control systems, equipment QRA, electric tree structures, and manifold designs, this reference is still the one product engineers rely on to understand all components of subsea technology. Packed with new chapters on subsea processing and boosting equipment as well as coverage on newer valves and actuators,

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this handbook explains subsea challenges and discussions in a well-organized manner for both new and veteran engineers to utilize throughout their careers. Subsea Engineering Handbook, Second Edition remains the critical road map to understand all subsea equipment and technology. Gain access to the entire spectrum of subsea engineering, including the very latest on equipment, safety, and flow assurance systems Sharpen your knowledge with new content coverage on subsea valves and actuators, multiphase flow loop design, tree and manifold design as well as subsea control Practice and learn with new real-world test examples and case studies

The Offshore Pipeline Construction Industry: Activity Modeling and Cost Estimation in the United States Gulf of Mexico presents the latest technical concepts and economic calculations, helping engineers make better business decisions. The book covers flow assurance, development strategies on pipeline requirements and the construction service side with a global perspective. In addition, it focuses on

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one of the most underdeveloped, promising assets – the Gulf of Mexico. Pipeline construction and decommissioning estimation methods are examined with reliable data presented. A final section covers trends for oil, gas, bulk oil, bulk gas, service and umbilical pipelines for installation and decommissioning using correlation models. This book delivers a much-needed tool for the pipeline engineer to better understand the economical choices and alternatives to designing, constructing, and operating today's offshore pipelines. Built with construction and decommissioning decision tools supported by reliable data and case studies Organized by parts, including a section devoted to Gulf of Mexico statistics and estimation methods Helps readers gain practical knowledge on strategies and cost models from a global pipeline perspective, including environmental and mitigation considerations Onshore Structural Design Calculations: Energy Processing Facilities provides structural engineers and designers with the necessary calculations and advanced

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computer software program instruction for creating effective design solutions using structural steel and concrete, also helping users comply with the myriad of international codes and standards for designing structures that is required to house or transport the material being processed. In addition, the book includes the design, construction, and installation of structural systems, such as distillation towers, heaters, compressors, pumps, fans, and building structures, as well as pipe racks and mechanical and electrical equipment platform structures. Each calculation is discussed in a concise, easy-to-understand manner that provides an authoritative guide for selecting the right formula and solving even the most difficult design calculation. Provides information on the analysis and design of steel, concrete, wood, and masonry building structures and components Presents the necessary international codes and calculations for the construction and the installation of systems Covers steel and concrete structures design in industrial

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projects, such as oil and gas plants, refinery, petrochemical, and power generation projects, in addition to general industrial projects

Process Intensification is a comprehensive textbook and treats the theory of process intensification design, and all innovation steps from idea generation to commercial implementation, and all focused on contributing to the UN Sustainable Development Goals. This book covers the 'hard' elements of design, modelling, and experimental validations and the 'soft' elements, values of engineers, interests of stakeholders and beliefs of society.

### Pipelines and Risers

This work outlines a state-of-the-art project control and trending programme, focusing on advanced applied-cost and schedule-control skills for all phases of a project at both owner and contractor level. It contains information on the three major aspects of the total project programme: the techniques and procedures utilized for a project; the experience and analytical ability of project

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personnel; and the commitment and teamwork of a project group.

This work aims to keep criminal lawyers up to date with the latest cases and legislation, and includes longer articles analyzing current trends and important changes in the law. Drawing all aspects of the law together in one regular publication, it allows quick and easy reference

[Power Plant and Energy Processing Facilities](#)

[Concepts, Strategies, and Practices for Success](#)

[Project Engineering](#)

[The Offshore Pipeline Construction Industry](#)

[Activity Modeling and Cost Estimation in the U.S Gulf of Mexico](#)

[Practical Risk Management for EPC / Design-Build Projects](#)

[Cost Engineering](#)

[For Chemical Engineers and Students](#)

[Onshore Structural Design Calculations](#)

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## SI edition

*Case Studies in Mechanical Engineering: Decision Making, Thermodynamics, Fluid Mechanics and Heat Transfer Stuart Sabol, Engineering Manager - Power Engineering at Power, Energy - USA Using a case study approach, this reference tests the reader's ability to apply engineering fundamentals to real-world examples and receive constructive feedback Case Studies in Mechanical Engineering provides real life examples of the application of engineering fundamentals. They relate to real equipment, real people and real decisions. They influence careers, projects, companies, and governments. The cases serve as supplements to fundamental courses in thermodynamics, fluid mechanics, heat transfer, instrumentation, economics, and statistics. The author explains equipment and concepts to solve the problems and suggests relevant assignments to augment the cases. Graduate engineers seeking to refresh their career, or acquire continuing education will find the studies challenging and rewarding. Each case is designed to be accomplished in one week, earning up to 15 hours of continuing education credit. Each case study provides methods to present an argument, work with clients, recommend action and develop new business. Key features:*

- *Highlights the economic consequences of engineering designs and decisions.*
- *Encourages problem solving skills.*

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*Application of fundamentals to life experiences. • Ability to practice with real life examples. Case Studies in Mechanical Engineering is a valuable reference for mechanical engineering practitioners working in thermodynamics, fluid mechanics, heat transfer and related areas.*

*"Highlighting the practical side of real-life project execution, this massive reference stresses project management as an independent profession--detailing the varied applications where project management is used and examining the numerous and diverse project management responsibilities and tools. "*

*Natural gas is considered the dominant worldwide bridge between fossil fuels of today and future resources of tomorrow. Thanks to the recent shale boom in North America, natural gas is in a surplus and quickly becoming a major international commodity. Stay current with conventional and now unconventional gas standards and procedures with Natural Gas Processing: Technology and Engineering Design. Covering the entire natural gas process, Bahadori's must-have handbook provides everything you need to know about natural gas, including: Fundamental background on natural gas properties and single/multiphase flow factors How to pinpoint equipment selection criteria, such as US and international standards, codes, and critical design considerations A step-by-step simplification of the major gas processing procedures, like sweetening,*

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*dehydration, and sulfur recovery Detailed explanation on plant engineering and design steps for natural gas projects, helping managers and contractors understand how to schedule, plan, and manage a safe and efficient processing plant Covers both conventional and unconventional gas resources such as coal bed methane and shale gas Bridges natural gas processing with basic and advanced engineering design of natural gas projects including real world case studies Digs deeper with practical equipment sizing calculations for flare systems, safety relief valves, and control valves*

*Many of the books on construction risk management concentrate on theoretical approaches to the accurate assessment of the overall risks of taking on a new project. Less attention is paid to the typical risks to which the operational level of a project is exposed and how operational managers should approach those risks during project implementation. This book identifies precisely where the major EPC/Design-Build risks occur within an operational framework and shows how best to deal with those risks. The book attempts to offer practical advice, approaches and tools for dealing with risks to which the various operational departments are exposed.*

*\* Each chapter is written by one or more invited world-renowned experts \* Information provided in handy reference tables and design charts \* Numerous examples demonstrate how*

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*the theory outlined in the book is applied in the design of structures Tremendous strides have been made in the last decades in the advancement of offshore exploration and production of minerals. This book fills the need for a practical reference work for the state-of-the-art in offshore engineering. All the basic background material and its application in offshore engineering is covered. Particular emphasis is placed in the application of the theory to practical problems. It includes the practical aspects of the offshore structures with handy design guides, simple description of the various components of the offshore engineering and their functions. The primary purpose of the book is to provide the important practical aspects of offshore engineering without going into the nitty-gritty of the actual detailed design. · Provides all the important practical aspects of ocean engineering without going into the 'nitty-gritty' of actual design details. · Simple to use - with handy design guides, references tables and charts. · Numerous examples demonstrate how theory is applied in the design of structures Handshake: a quarterly journal on public-private partnerships, is the World Bank Group's flagship peer-reviewed publication on PPPs. It explores the pragmatic and innovative solutions that the public and private sectors can create together to address complex global challenges. There is a huge amount of rhetoric and misconceptions*

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*surrounding PPPs. As governments in emerging markets look to address seemingly intractable infrastructure and service quality challenges to better serve their citizens, there are few places for them to find relatable, real-world examples and solutions. Handshake aims to fill this void by presenting key issues and solutions in the sector, articles and interviews with industry and academic experts, and columns from seasoned PPP professionals.*

*Developing and Enhancing Teamwork in Organizations Today's team-based organizations face an unprecedented range of challenges. Many teams reflect the diversity of its members which vary in experience, education, and training. To add to the complexity, teams often include people who are not in the same room together, are geographically dispersed, and are connected only by electronic media. Developing and Enhancing Teamwork in Organizations is a volume in the SIOP Professional Practice Series that brings together leading edge practitioners and academics who share their knowledge about effective teamwork. The book contains evidence-based guidelines designed to offer practitioners advice, recommendations, and strategies for developing and sustaining teams that consistently function at peak performance. With contributions from leading experts in the field, this important resource covers team-based performance approaches from a wide*

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*range of activities and industries. For example, the volume explores team work in the NASA organization supporting astronauts, superior performance in football, and also in the military and industry. In addition, the contributors include information concerning healthcare organizations and their delivery of vital services. Each illustrative example reviews the lessons learned and the principles and the findings that were most influential when composing and managing a particular work team. International in scope, the volume clearly shows what it takes for team-based organizations to excel in the 21st Century. A division of the American Psychological Association and established in 1945, the Society for Industrial and Organizational Psychology (SIOP) is the premier association for professionals charged with enhancing human well-being and performance in organizational and work settings. SIOP has more than 7,000 members.*

[Quality Management in Oil and Gas Projects](#)  
[Introduction to Chemical Engineering](#)  
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[Handbook of Offshore Engineering \(2-volume set\)](#)  
[The Essential Toolbox for Young Engineers](#)  
[Chemical Engineering Progress](#)  
[Chemical Engineering Design](#)