

supply chains and its management.

Handbook of Industrial Engineering Gavriel Salvendy 2001-05-25 Unrivaled coverage of a broad spectrum of industrial engineering concepts and applications *The Handbook of Industrial Engineering, Third Edition* contains a vast array of timely and useful methodologies for achieving increased productivity, quality, and competitiveness and improving the quality of working life in manufacturing and service industries. This astoundingly comprehensive resource also provides a cohesive structure to the discipline of industrial engineering with four major classifications: technology; performance improvement management; management, planning, and design control; and decision-making methods. Completely updated and expanded to reflect nearly a decade of important developments in the field, this Third Edition features a wealth of new information on project management, supply-chain management and logistics, and systems related to service industries. Other important features of this essential reference include: * More than 1,000 helpful tables, graphs, figures, and formulas * Step-by-step descriptions of hundreds of problem-solving methodologies * Hundreds of clear, easy-to-follow application examples * Contributions from 176 accomplished international professionals with diverse training and affiliations * More than 4,000 citations for further reading *The Handbook of Industrial Engineering, Third Edition* is an immensely useful one-stop resource for industrial engineers and technical support personnel in corporations of any size; continuous process and discrete part manufacturing industries; and all types of service industries, from healthcare to hospitality, from retailing to finance. Of related interest . . . **HANDBOOK OF HUMAN FACTORS AND ERGONOMICS, Second Edition** Edited by Gavriel Salvendy (0-471-11690-4) 2,165 pages 60 chapters "A comprehensive guide that contains practical knowledge and technical background on virtually all aspects of physical, cognitive, and social ergonomics. As such, it can be a valuable source of information for any individual or organization committed to providing competitive, high-quality products and safe, productive work environments."-John F. Smith Jr., Chairman of the Board, Chief Executive Officer and President, General Motors Corporation (From the Foreword)

Planning and Control of Maintenance Systems Salih O. Duffuaa 2015-07-11 Analyzing maintenance as an integrated system with objectives, strategies and processes that need to be planned, designed, engineered, and controlled using statistical and optimization techniques, the theme of this book is the strategic holistic system approach for maintenance. This approach enables maintenance decision makers to view maintenance as a provider of a competitive edge not a necessary evil. Encompassing maintenance systems; maintenance strategic and capacity planning, planned and preventive maintenance, work measurements and standards, material (spares) control, maintenance operations and control, planning and scheduling, maintenance quality, training, and others, this book gives readers an understanding of the relevant methodology and how to apply it to real-world problems in industry. Each chapter includes a number exercises and is suitable as a textbook or a reference for a professionals and practitioners whilst being of interest to industrial engineering, mechanical engineering, electrical engineering, and industrial management students. It can also be used as a textbook for short courses on maintenance in industry. This text is the second edition of the book, which has four new chapters added and three chapters are revised substantially to reflect development in maintenance since the publication of the first edition. The new chapters cover reliability centered maintenance, total productive maintenance, e-maintenance and maintenance performance, productivity and continuous improvement.

Industrial Engineering in the Industry 4.0 Era Fethi Calisir 2017-12-28 This book gathers extended versions of the best papers presented at the Global Joint Conference on Industrial Engineering and Its Application Areas (GJCIE), held in Vienna on July 20-21, 2017. They offer a snapshot of the current state of the art in three main related fields of research, namely industrial engineering, engineering and technology management, and healthcare systems engineering management. The book is intended to integrate theory and practice and to merge different perspectives, from the academic to the industrial and governmental one.

Industrial Engineering and Management Pravin Kumar 2015 The book has been designed for undergraduate students studying Mechanical Engineering or Industrial Engineering. It discusses various concepts and provides practical knowledge related to the area of Industrial Engineering and Management. The book lucidly covers Project Management, Quality Management, Costing etc. in detail to develop the required skills among the students.

Supply Chain Network Design Michael Watson 2013 Using strategic supply chain network design, companies can drive consistent dramatic savings throughout their global supply chains. Logistics experts at IBM and Northwestern University have brought together the rigorous principles and the practical applications supply chain designers need to improve the flow of physical products across the globe.

International Conference on Industrial Engineering and Management Science-2013 Dr. X. Chen, 2013-10-16 ICIEMS 2013 is to provide a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in Industrial Engineering and Management Science. This conference provides opportunities for the delegates to exchange new ideas and experiences face to face, to establish business or research relations and to find global partners for future collaboration.

Handbook of Quantitative Supply Chain Analysis David Simchi-Levi 2004-05-31 The Handbook is a comprehensive research reference that is essential for anyone interested in conducting research in supply chain. Unique features include: -A focus on the intersection of quantitative supply chain analysis and E-Business, -Unlike other edited volumes in the supply chain area, this is a handbook rather than a collection of research papers. Each chapter was written by one or more leading researchers in the area. These authors were invited on the basis of their scholarly expertise and unique insights in a particular sub-area, -As much attention is given to looking back as to looking forward. Most chapters discuss at length future research needs and research directions from both theoretical and practical perspectives, -Most chapters describe in detail the quantitative models used for analysis and the theoretical underpinnings; many examples and case studies are provided to demonstrate how the models and the theoretical insights are relevant to real situations, -Coverage of most state-of-the-art business practices in supply chain management.

Advances in Industrial and Production Engineering Rakesh Kumar Phanden 2021-03-21 This book comprises the select proceedings of the 2nd International Conference on Future Learning Aspects of Mechanical Engineering (FLAME) 2020. In particular, this volume discusses different topics of industrial and production engineering such as sustainable manufacturing processes, logistics, Industry 4.0 practices, circular economy, lean six sigma, agile manufacturing, additive manufacturing, IoT and Big Data in manufacturing, 3D printing, simulation, manufacturing management and automation, surface roughness, multi-objective optimization and modelling for production processes, developments in casting, welding, machining, and machine tools. The contents of this book will be useful for researchers as well as industry professionals.

Industrial Engineering and Production Management Martand T Telsang For close to 20 years, "Industrial Engineering and Production Management" has been a successful text for students of Mechanical, Production and Industrial Engineering while also being equally helpful for students of other courses including Management. Divided in 5 parts and 52 chapters, the text combines theory with examples to provide in-depth coverage of the subject.

The Art of Insight in Science and Engineering Sanjoy Mahajan 2014-11-07 Tools to make hard problems easier to solve. In this book, Sanjoy Mahajan shows us that the way to master complexity is through insight rather than precision. Precision can overwhelm us with information, whereas insight connects seemingly disparate pieces of information into a simple picture. Unlike computers, humans depend on insight. Based on the author's fifteen years of teaching at MIT, Cambridge University, and Olin College, The Art of Insight in Science and Engineering shows us how to build insight and find understanding, giving readers tools to help them solve any problem in science and engineering. To master complexity, we can organize it or discard it. The Art of Insight in Science and Engineering first teaches the tools for organizing complexity, then distinguishes the two paths for discarding complexity: with and without loss of information. Questions and problems throughout the text help readers master and apply these groups of tools. Armed with this three-part toolchest, and without complicated mathematics, readers can estimate the flight range of birds and planes and the strength of chemical bonds, understand the physics of pianos and xylophones, and explain why skies are blue and sunsets are red. The Art of Insight in Science and Engineering will appear in print and online under a Creative Commons Noncommercial Share Alike license.

Simplified Systematic Layout Planning Richard Muther 1994

Proceedings on 25th International Joint Conference on Industrial Engineering and Operations Management

– IJCIEOM Zoran Anisic 2020-03-20 This book presents the conference proceedings of the 25th edition of the International Joint Conference on Industrial Engineering and Operations Management. The conference is organized by 6 institutions (from different countries and continents) that gather a large number of members in the field of operational management, industrial engineering and engineering management. This edition of the conference had the title: **THE NEXT GENERATION OF PRODUCTION AND SERVICE SYSTEMS** in order to emphasis unpredictable and very changeable future. This conference is aimed to enhance connection between academia and industry and to gather researchers and practitioners specializing in operation management, industrial engineering, engineering management and other related disciplines from around the world.

Industrial Engineering: Innovative Networks Suresh P. Sethi 2012-01-05 The Spanish Conference of Industrial Engineering /Ingeniería de Organización Industrial (CIO) is an annual meeting promoted by Asociación para el Desarrollo de la Ingeniería de Organización/ Industrial Engineers Association (ADINGOR). The aim of CIO is to establish a forum for the open and free exchange of ideas, opinions and academic experiences about research, technology transfer or successful business experiences in the field of Industrial Engineering. The Scientific Committee is composed by 68 international referees and we foresee the attendance of some 200 people from more than 15 countries and following the rotation of venue and organization between various Spanish universities, the 2011 Conference will be the fifteenth National Conference and the fifth International Conference in Cartagena. During three days the 2011 Conference will include the participation of European and other foreign countries researchers and practitioners that will presenting communications, reproduced in this volume, on a range of topics including: Production and Operations Business Management Supply Chain Management Economic environment Technological and Organizational Innovation and Management and Innovation in Education The Conference on Industrial Engineering (CIO) and its proceedings are an excellent platform for the dissemination of the outputs of the scientific projects developed in the frame of the European, national or regional Research and Development plans.

Operations Management and Systems Engineering Anish Sachdeva 2019-04-08 This book comprises select proceedings of the International Conference on Production and Industrial Engineering (CPIE) 2018. The book focuses on the latest developments in the domain of operations management and systems engineering, and presents analytical models, case studies, and simulation approaches relevant to a wide variety of systems engineering problems. Topics such as decision sciences, human factors and ergonomics, transport and supply chain management, manufacturing design, operations research, waste management, modeling and simulation, reliability and maintenance, and sustainability in operations and manufacturing are discussed in this book. The contents of this book will be useful to academics, researchers and practitioners working in the field of systems engineering and operations management.

Encyclopedia of Production and Manufacturing Management Paul M. Swamidass 2000-06-30 Production and manufacturing management since the 1980s has absorbed in rapid succession several new production management concepts: manufacturing strategy, focused factory, just-in-time manufacturing, concurrent engineering, total quality management, supply chain management, flexible manufacturing systems, lean production, mass customization, and more. With the increasing globalization of manufacturing, the field will continue to expand. This encyclopedia's audience includes anyone concerned with manufacturing techniques, methods, and manufacturing decisions.

Food Process Engineering and Technology Zeki Berk 2018-02-13 Food Process Engineering and Technology, Third Edition combines scientific depth with practical usefulness, creating a tool for graduate students and practicing food engineers, technologists and researchers looking for the latest information on transformation and preservation processes and process control and plant hygiene topics. This fully updated edition provides recent research and developments in the area, features sections on elements of food plant design, an introductory section on the elements of classical fluid mechanics, a section on non-thermal processes, and recent technologies, such as freeze concentration, osmotic dehydration, and active packaging that are discussed in detail. Provides a strong emphasis on the relationship between engineering and product quality/safety Considers cost and environmental factors Presents a fully updated, adequate review of recent

research and developments in the area Includes a new, full chapter on elements of food plant design Covers recent technologies, such as freeze concentration, osmotic dehydration, and active packaging that are discussed in detail

Transforming Management Using Artificial Intelligence Techniques Vikas Garg 2020-11-09 **Transforming Management Using Artificial Intelligence Techniques** redefines management practices using artificial intelligence (AI) by providing a new approach. It offers a detailed, well-illustrated treatment of each topic with examples and case studies, and brings the exciting field to life by presenting a substantial and robust introduction to AI in a clear and concise manner. It provides a deeper understanding of how the relevant aspects of AI impact each other's efficacy for better output. It's a reliable and accessible one-step resource that introduces AI; presents a full examination of applications; provides an understanding of the foundations; examines education powered by AI, entertainment, home and service robots, healthcare re-imagined, predictive policing, space exploration; and so much more, all within the realm of AI. This book will feature: Uncovering new and innovative features of AI and how it can help in raising economic efficiency at both micro- and macro levels Both the literature and practical aspects of AI and its uses This book summarizing key concepts at the end of each chapter to assist reader comprehension Case studies of tried and tested approaches to resolutions of typical problems Ideal for both teaching and general-knowledge purposes. This book will also simply provide the topic of AI for the readers, aspiring researchers and practitioners involved in management and computer science, so they can obtain a high-level of understanding of AI and managerial applications.

Product Design and Development Karl T. Ulrich 2003 **Treating such contemporary design and development issues as identifying customer needs, design for manufacturing, prototyping, and industrial design, Product Design and Development, 3/e, by Ulrich and Eppinger** presents in a clear and detailed way a set of product development techniques aimed at bringing together the marketing, design, and manufacturing functions of the enterprise. The integrative methods in the book facilitate problem solving and decision making among people with different disciplinary perspectives, reflecting the current industry trend to perform product design and development in cross-functional teams.

Proceedings of the International Conference on Industrial and Manufacturing Systems (CIMS-2020) Ravi Pratap Singh 2021-07-24 **In order to deal with the societal challenges novel technology plays an important role. For the advancement of technology, Department of Industrial and Production Engineering under the aegis of NIT Jalandhar is organizing an "International Conference on Industrial and Manufacturing Systems" (CIMS-2020) from 26th -28th June, 2020. The present conference aims at providing a leading forum for sharing original research contributions and real-world developments in the field of Industrial and Manufacturing Systems so as to contribute its share for technological advancements. This volume encloses various manuscripts having its roots in the core of industrial and production engineering. Globalization provides all around development and this development is impossible without technological contributions. CIMS-2020, gathered the spirits of various academicians, researchers, scientists and practitioners, answering the vivid issues related to optimisation in the various problems of industrial and manufacturing systems.**

Production And Operations Management S. Anil Kumar 2006-01-01 **This Book Presents Lucid Treatment Of A Wide Range Of Issues Involved In Production And Operations Management. It Focuses On The Latest Techniques In Production Planning And Control Considered To Be Pivotal For Organizations, Which Aim At Maximizing Their Productivity And Profitability. The Book Further Discusses In Detail The Production System Concept, Facility Location, Plant Layout Design, Production Scheduling, Mass Production Techniques Such As Assembly Line Balancing Maintenance Planning And Control, Scheduling, Quality Control; And Modern Production Management Tools That Include Cim, Tqm And Iso 9000 Series. Primarily Designed As A Textbook For Various Courses Like Bbm, Bba, B.Com., Mba And Also Useful For Students Pursuing Courses, Production And Operations Management, Mechanical, Industrial And Production Engineering Of Bangalore And Other Indian Universities. Salient Features: * Book Is Written In Simple And Lucid Style * Contents Are Presented In A Most Meticulous Manner * Charts Are Provided For Easy Understanding Of The Concepts * Exercises Are Designed For Self-Evaluation And Include Objective Type, Analytical Type And Application Type Questions * Contains Examination Question Bank * Contains Exhaustive Glossary Of Terminologies * Focuses On Materials Management Concepts And Techniques * Focuses On Plant Location And Layout**

Concepts * Focuses On Statistical Quality Control Concepts And Technique * Focuses On Industrial Engineering Concepts Such As Time Motion Study, Maintenance Management, Waste Management & Automation

Automation, Production Systems, and Computer-integrated Manufacturing Mikell P. Groover 2008 For advanced undergraduate/ graduate-level courses in Automation, Production Systems, and Computer-Integrated Manufacturing. This exploration of the technical and engineering aspects of automated production systems provides the most advanced, comprehensive, and balanced coverage of the subject of any text on the market. It covers all the major cutting-edge technologies of production automation and material handling, and how these technologies are used to construct modern manufacturing systems.

Emerging Frontiers in Operations and Supply Chain Management B. Vipin 2021-09-15 This edited book addresses the challenges in managing the operations and supply chain of organizations in the era of internet of things and Industry 4.0. It presents cutting edge research on real world operations related problems, in-depth analyses, and relevant managerial implications. Wide variety of solution approaches such as quantitative, quantitative, and simulations are presented in the context of managing the operations and supply chains. Consisting of selected papers from the XXIII Annual International Conference of Society of Operations Management, this volume is part of a two volume series with the other book consisting of chapters on quantitative decision making. This edited book covers various quantitative models on operations and supply chain management such as inventory optimization, machine learning-operations research integrated model for healthcare systems, game-theoretic analysis of review strategies in truthful information sharing, design of contracts in supply chains, supply chain optimization, inventory routing, and shop floor scheduling. In addition to the quantitative models, several innovative heuristics are proposed for different problems. This book explores qualitative models on improving the performance of small and medium enterprises and petroleum industries and a simulation model for staff allocation in the information technology industry. Finally, this book provides review articles on vaccine supply chains and behavioral operations management. The book throws light on the emerging trends in the use of analytics, optimization, and simulation tools and empirical analysis to improve the performance of operations and supply chains of organizations. It will serve as an essential resource for practitioners, students, faculty members and scholars in operations management and related areas to gain knowledge and pursue high quality research on developments in areas such as managing the resource management and the solution methodology---innovative tools employed in addressing the real world problems and the different optimization techniques.

Operations Management in Automotive Industries Marco Gobetto 2013-10-23 This book has proved its worth over the years as a text for courses in Production Management at the Faculty of Automotive Engineering in Turin, Italy, but deserves a wider audience as it presents a compendium of basics on Industrial Management, since it covers all major topics required. It treats all subjects from product development and “make or buy”-decision strategies to the manufacturing systems setting and management through analysis of the main resources needed in production and finally exploring the supply chain management and the procurement techniques. The very last chapter recapitulates the previous ones by analysing key management indicators to pursue the value creation that is the real purpose of every industrial enterprise. As an appendix, a specific chapter is dedicated to the basics of production management where all main relevant definitions, techniques and criteria are treated, including some numerical examples, in order to provide an adequate foundation for understanding the other chapters. This book will be of use not only to Automotive Engineering students but a wide range of readers who wish to gain insight in the world of automotive engineering and the automotive industry in general.

Biochar for Environmental Management Johannes Lehmann 2012-05-16 Biochar is the carbon-rich product when biomass (such as wood, manure or crop residues) is heated in a closed container with little or no available air. It can be used to improve agriculture and the environment in several ways, and its stability in soil and superior nutrient-retention properties make it an ideal soil amendment to increase crop yields. In addition to this, biochar sequestration, in combination with sustainable biomass production, can be carbon-negative and therefore used to actively remove carbon dioxide from the atmosphere, with major implications for mitigation of climate change. Biochar production can also be combined with bioenergy production through the

use of the gases that are given off in the pyrolysis process. This book is the first to synthesize the expanding research literature on this topic. The book's interdisciplinary approach, which covers engineering, environmental sciences, agricultural sciences, economics and policy, is a vital tool at this stage of biochar technology development. This comprehensive overview of current knowledge will be of interest to advanced students, researchers and professionals in a wide range of disciplines.

Modern Manufacturing Engineering J. Paulo Davim 2015-06-19 This book covers recent research and trends in Manufacturing Engineering. The chapters emphasize different aspects of the transformation from materials to products. It provides the reader with fundamental materials treatments and the integration of processes. Concepts such as green and lean manufacturing are also covered in this book.

Industrial Engineering 1983

Technology & Management Shahryar Sorooshian 2014-03-08 This edited book is compilation of studies conducted in the areas of technology and management. Contributors of this edited book articles are scholars from University Putra Malaysia, Taylors' University, INTI International College Subang, and University Malaysia Pahang. These cutting-edge articles will be of interest to researchers, and academics.

Introduction to Machining Science G. K. Lal 2007-01-01 About the Book: This book is an attempt to consolidate the basic scientific studies in the machining area so that fundamental mechanics and other concepts related to primary machining processes could be understood. The book is essentially designed for senior undergraduate mechanical and production engineering students but practicing engineers will also find it useful for tool and product design. The topics covered include plastic deformation, chip formation, tool geometry, mechanics of orthogonal and oblique cutting, measurement of cutting force, cutting temperature, tool wear and tool life, economics of machining, grinding of metals and machining vibrations. The analyses presented have been illustrated through numerical examples. Review questions and bibliography are also included. About the Author: Dr. G.K. Lal has been associated with the Indian Institute of Technology, Kanpur for the past 34 years. He retired as a Professor of Mechanical Engineering in 2003 and had earlier held the positions of Dean (1976-80) and Deputy Director (1982-88). Before joining IIT Kanpur he had taught at the Banaras Hindu University and held research positions at the University of Sherbrooke (Canada) and the Carnegie-Mellon University (USA). He also worked as a Design Engineer with the Abitibi Paper and Power Corp. of Canada.

Enhancing Synergies in a Collaborative Environment Pablo Cortés 2015-02-04 This volume contains a selection of the best papers presented at the 8th International Conference on Industrial Engineering and Industrial Management, XX International Conference on Industrial Engineering and Operations Management, and International IIE Conference 2014, hosted by ADINGOR, ABEPRO and the IIE, whose mission is to promote links between researchers and practitioners from different branches, to enhance an interdisciplinary perspective of industrial engineering and management. The conference topics covered: operations research, modelling and simulation, computer and information systems, operations research, scheduling and sequencing, logistics, production and information systems, supply chain and logistics, transportation, lean management, production planning and control, production system design, reliability and maintenance, quality management, sustainability and eco-efficiency, marketing and consumer behavior, business administration and strategic management, economic and financial management, technological and organizational innovation, strategy and entrepreneurship, economics engineering, enterprise engineering, global operations and cultural factors, operations strategy and performance, management social responsibility, environment and sustainability. This book will be of interest to researchers and practitioners working in any of the fields mentioned above.

Non-Conventional Hybrid Machining Processes Rupinder Singh 2020-10-30 This new book covers process optimization and process capability for hybrid NCMP (nonconventional machining process), and combines NCMP and conventional machining removal processes for various hybridized processes. This book is focused on understanding the basic mechanism of some of the NCMPs for their possible hybridization. This book can be used for the development of a basic framework on hybridization for the selected NCMP. The framework is further strengthened by case studies included in this book. The concept of macro-modeling for NCMP and the framework for the development of industrial standards have been outlined. This book is of interest to

researchers and graduate students working in the field of hybrid NCMP, especially for the development of novel processes. Field engineers of NCMP may also use it for further process development. Features: Provides a detailed description of mechanism for different NCMPs for possible hybridization. Includes a case study on mechanism of processes. Offers a systematic approach for understanding NCMP. Covers the issues of process optimization and process capability for hybrid NCMP.

Industrial Engineering And Management O. P. Khanna 1980

*Fundamentals of Project Management James P. Lewis 2002 Updated concepts and tools to set up project plans, schedule work, monitor progress-and consistently achieve desired project results. In today's time-based and cost-conscious global business environment, tight project deadlines and stringent expectations are the norm. This classic book provides businesspeople with an excellent introduction to project management, supplying sound, basic information (along with updated tools and techniques) to understand and master the complexities and nuances of project management. Clear and down-to-earth, this step-by-step guide explains how to effectively spearhead every stage of a project-from developing the goals and objectives to managing the project team-and make project management work in any company. This updated second edition includes: * New material on the Project Management Body of Knowledge (PMBOK) * Do's and don'ts of implementing scheduling software* Coverage of the PMP certification offered by the Project Management Institute* Updated information on developing problem statements and mission statements* Techniques for implementing today's project management technologies in any organization-in any industry.*

Handbook of Research on Strategic Innovation Management for Improved Competitive Advantage Jamil, George Leal 2018-04-13 Innovation is a vital process for any business to remain competitive in this age. This progress must be coherently and optimally managed, allowing for successful improvement and future growth. The Handbook of Research on Strategic Innovation Management for Improved Competitive Advantage provides emerging research on the use of information and knowledge to promote development in various business agencies. While covering topics such as design thinking, financial analysis, and policy planning, this publication explores the wide and complex relationships that constitute strategic innovation management principals and processes. This publication is an important resource for students, professors, researchers, managers, and entrepreneurs seeking current research on the methods and tools regarding information and knowledge management for business advancement.

Mechanical and Industrial Engineering J. Paulo Davim 2021-12-02 This book covers historical aspects and future directions of mechanical and industrial engineering. Chapters of this book include applied mechanics and design, tribology, machining, additive manufacturing and management of industrial technologies.

Industrial Organization and Management S. K. Basu 2012

Biopharmaceutical Processing Gunter Jagschies 2018-01-18 Biopharmaceutical Processing: Development, Design, and Implementation of Manufacturing Processes covers bioprocessing from cell line development to bulk drug substances. The methods and strategies described are essential learning for every scientist, engineer or manager in the biopharmaceutical and vaccines industry. The integrity of the bioprocess ultimately determines the quality of the product in the biotherapeutics arena, and this book covers every stage including all technologies related to downstream purification and upstream processing fields. Economic considerations are included throughout, with recommendations for lowering costs and improving efficiencies. Designed for quick reference and easy accessibility of facts, calculations and guidelines, this book is an essential tool for industrial scientists and managers in the biopharmaceutical industry. Offers a comprehensive, go-to reference for daily work decisions Covers both upstream and downstream processes Includes case studies that emphasize financial outcomes Presents summaries, decision grids, graphs and overviews for quick reference