

Apics Dictionary 14th Edition

Renewable raw materials are becoming increasingly important as an alternative resource base in industrial networks. Consequently, research for methods improving the efficient use of renewable resources in production processes with by-products is crucial. The aim is cascade utilization, thus the multiple utilization of a raw material before its conversion into energy. The International Conference on Resource Efficiency in Interorganizational Networks (ResEff) brings together interdisciplinary researchers developing strategies and solution concepts for efficient resource utilization. It is therefore a platform for scientific exchange both between experts as well as interdisciplinary groups from agricultural and forestry science, mathematical optimization, operations research, marketing, business informatics, production and logistics. The following facets of the challenging topic of resource efficiency in interorganizational networks are covered: Materials, technologies, planning of production and value-added networks for renewable resources as well as governance, coordination and sale of products from renewable resources.

The second edition of this popular textbook presents a balanced overview of the principles of supply chain management. Going beyond the usual supply chain text, *Principles of Supply Chain Management* not only details the individual components of the supply chain, but also illustrates how the pieces must come together. To show the logic behind why supply chain management is essential, the text examines how supply chains are evolving, looks ahead to new developments, and provides a balanced look at supply chains with a focus on both the customer side and the supplier side of supply chains. See *What's New in the Second Edition*: Expanded coverage of current topics such as e-commerce, risk management, outsourcing and reshoring, sustainability, project management, and data analytics Increased emphasis on how customers are becoming more influential in steering product design Additional coverage of the use of data analytics to evaluate customer preferences and buying patterns A new chapter devoted to logistics and its increasing importance in supply chains Company profiles of organizations with effective supply chains that illustrate the main theme of each chapter A "Hot Topic" for each chapter, providing a description of a critical management issue to stimulate class discussion A complete set of instructor materials for each chapter, including presentation slides, test banks, class exercises, discussion questions, and more From the point of distribution to the final customer, all the way back to the point of origin at the mine or farm, the text provides examples and case histories that illustrate a proven approach for achieving effective supply chain integration. This self-contained resource provides readers with a realistic appraisal of the state of the art in supply chain management and the understanding needed to build and manage effective supply chains in a wide range of industries. Most importantly, it emphasizes the need for building and maintaining collaboration among all members of the supply chain.

When work began on the first volume of this text in 1992, the science of distribution management was still very much a backwater of general management and academic thought. While most of the body of knowledge associated with calculating EOQs, fair-shares inventory deployment, productivity curves, and other operations management techniques had long been solidly established, new thinking about distribution management had taken a definite back-seat to the then dominant interest in Lean thinking, quality management, and business process reengineering and their impact on manufacturing and service organizations. For the most part, discussion relating to the distribution function centered on a fairly recent concept called Logistics Management. But, despite talk of how logistics could be used to integrate internal and external business functions and even be considered a source of competitive advantage on its own, most of the focus remained on how companies could utilize operations management techniques to optimize the traditional day-to-day shipping and receiving functions

in order to achieve cost containment and customer fulfillment objectives. In the end, distribution management was, for the most part, still considered a dreary science, concerned with transportation rates and cost trade-offs. Today, the science of distribution has become perhaps one of the most important and exciting disciplines in the management of business.

The new edition of this professional resource reveals how to optimize all aspects of the global manufacturing process to build the highest quality goods at the lowest price in the shortest possible time. How can one apply technical and business knowledge to develop a strategic plan that delivers increased productivity, quality, sustainability, reliability, agility, resilience, and best practices with rapid time to production and value? The answers are found in the fully updated new edition of *Manufacturing Engineering Handbook*. The goal of this second edition is to provide the essential knowledge needed to build products with the highest quality at the lowest cost in the least amount of time by optimizing all aspects of the manufacturing process—design, development, tools, processes, quality, speed, output, safety, and sustainability. You will gain access to information on conventional and modern technologies, manufacturing processes, and operations management that will assist you in achieving these goals. The book is written by a team of more than 100 internationally renowned manufacturing engineering experts, and pared down from its original 1200 pages. The new and vastly improved second edition is specifically designed to concisely and succinctly cover traditional manufacturing processes and advanced technologies as well as newer manufacturing software and systems to integrate them into the modern, global manufacturing world. Brand-new chapters on: eco-design and sustainability; nano materials and nano manufacturing; facilities planning; operations research. New sections on plastics, composites, and moldmaking; global manufacturing and supply chain management. Increased coverage of Design for Six Sigma and adaptive manufacturing. Affiliated web site with color illustrations, graphs, charts, discussions on future trends, additional technical papers, and suggestions for further reading.

At the crossroads of artificial intelligence, manufacturing engineering, operational research and industrial engineering and management, multi-agent based production planning and control is an intelligent and industrially crucial technology with increasing importance. This book provides a complete overview of multi-agent based methods for today's competitive manufacturing environment, including the Job Shop Manufacturing and Re-entrant Manufacturing processes. In addition to the basic control and scheduling systems, the author also highlights advance research in numerical optimization methods and wireless sensor networks and their impact on intelligent production planning and control system operation. Enables students, researchers and engineers to understand the fundamentals and theories of multi-agent based production planning and control. Written by an author with more than 20 years' experience in studying and formulating a complete theoretical system in production planning technologies. Fully illustrated throughout, the methods for production planning, scheduling and controlling are presented using experiments, numerical simulations and theoretical analysis. Comprehensive and concise, *Multi-Agent Based Production Planning and Control* is aimed at the practicing engineer and graduate student in industrial engineering, operational research, and mechanical engineering. It is also a handy guide for advanced students in artificial intelligence and computer engineering.

Industrial revolutions have impacted both, manufacturing and service. From the steam engine to digital automated production, the industrial revolutions have conducted significant changes in operations and supply chain management (SCM) processes. Swift changes in manufacturing and service systems have led to phenomenal improvements in productivity. The fast-paced environment brings new challenges and opportunities for the companies that are associated with the adaptation to the new concepts such as Internet of Things (IoT) and Cyber Physical Systems, artificial intelligence (AI), robotics, cyber security, data analytics, block chain and

cloud technology. These emerging technologies facilitated and expedited the birth of Logistics 4.0. Industrial Revolution 4.0 initiatives in SCM has attracted stakeholders' attentions due to its ability to empower using a set of technologies together that helps to execute more efficient production and distribution systems. This initiative has been called Logistics 4.0 of the fourth Industrial Revolution in SCM due to its high potential. Connecting entities, machines, physical items and enterprise resources to each other by using sensors, devices and the internet along the supply chains are the main attributes of Logistics 4.0. IoT enables customers to make more suitable and valuable decisions due to the data-driven structure of the Industry 4.0 paradigm. Besides that, the system's ability of gathering and analyzing information about the environment at any given time and adapting itself to the rapid changes add significant value to the SCM processes. In this peer-reviewed book, experts from all over the world, in the field present a conceptual framework for Logistics 4.0 and provide examples for usage of Industry 4.0 tools in SCM. This book is a work that will be beneficial for both practitioners and students and academicians, as it covers the theoretical framework, on the one hand, and includes examples of practice and real world.

Dieses bewährte Fachbuch zeigt das Integrale Logistikmanagement als das Management des Güter-, Daten- und Steuerungsflusses auf der umfassenden Supply Chain, also entlang des gesamten Lebenszyklus von Produkten materieller oder immaterieller Natur (Industrie oder Dienstleistung). Für die siebte Auflage haben Fragen zur Strategie und zum Design von Supply Chains an Bedeutung gewonnen. Ein zweites Kapitel zum Supply Chain Design umfasst neu • die integrierte Gestaltung von Produktions-, Versand-, Einzelhandels-, Service- und Transportnetzwerken • die integrierte Messung von Umwelt- und ökonomischer Leistung in nachhaltigen Supply Chains Weitere neue Teilkapitel behandeln den Nutzen von • neuen Methoden zum „engineer-to-order“ (ETO) für Produktfamilien und Einmalproduktion • befähiger-orientierten Technologien hin zur personalisierten Produktion, z.B. cyber-physische Systeme, die additive Fertigung (3D-Druck) oder die personalisierte Medikation Die übrigen Kapitel wurden gestrafft. Der behandelte Stoff umfasst die meisten Schlüsselbegriffe der APICS CPIM Module sowie des APICS CSCP Programms.

The three volumes IFIP AICT 438, 439, and 440 constitute the refereed proceedings of the International IFIP WG 5.7 Conference on Advances in Production Management Systems, APMS 2014, held in Ajaccio, France, in September 2014. The 233 revised full papers were carefully reviewed and selected from 271 submissions. They are organized in 6 parts: knowledge discovery and sharing; knowledge-based planning and scheduling; knowledge-based sustainability; knowledge-based services; knowledge-based performance improvement, and case studies.

Distribution Planning and Control Managing in the Era of Supply Chain Management Springer

Focus on management theory and practice

Featuring an ideal balance of managerial issues and quantitative techniques, this introduction to operations management keeps pace with current innovations and issues in the field. It presents the concepts clearly and logically, showing readers how OM relates to real business. The new edition also integrates the experiences of a real company throughout each chapter to clearly illustrate the concepts.

Readers will find brief discussions on how the company manages areas such as inventory and forecasting to provide a real-world perspective.

Project Managers as Senior Executives maps out a model for advancement for

program and project managers and contributes new thinking on the emerging leadership of project managers as senior executives. The research is published in two volumes. Volume I—Research Results, Advancement Model, and Action Proposals presents the results and proposals from the study and Volume 2—How the Research Was Conducted: Methodology, Detailed Findings, and Analyses contains the research-oriented materials from the study.

Successful companies must strive to improve business processes on a comprehensive, coordinated level. *Integral Logistics Management: Planning and Control of Comprehensive Supply Chains, Second Edition* examines logistics in areas beyond the flow of goods, investigating administrative and planning logistics, or process control. *What's New in the Second Edition: A review of E-business developments* Additional concepts in transcorporate supply chain management Expanded treatment of master planning Sections on distribution planning and control More details on safety stock calculation and service level vs. fill rate Revised chapter on the process industry Comprehensive extension and update of terminology per CPIM exam content manual, covering all five CPIM modules More examples from real industrial practice Keywords at the end of each chapter, as well as scenarios and exercises, many of which include interactive, online elements This volume presents the characteristics, tasks, methods, and techniques of planning and control, detailing innovations in supply chain management, Just-in-Time, Enterprise and Manufacturing Resource Planning (ERP and MRP II), one-of-a-kind production, manufacturing in the process industry, and more. It provides students, industrial engineers, business managers, computer scientists, and other professionals with critical information for improving processes within both manufacturing and service industries. All organizations operate in an environment that is rapidly changing. To be successful, the organization must also change. The question is what to change and how. This book will describe in some detail a number of management programs, many of which are known by their three-letter acronyms, such as Just-in-Time (JIT) or Service-Oriented Architecture (SOA). A management program is designed to improve an organization's effectiveness and efficiency. However, there are so many management programs it is often difficult for managers to decide which one would be most appropriate for their operation. This book will describe an array of management programs and group them to indicate their primary purpose. The book will also outline a process that will enable managers to select the most appropriate management program to meet their immediate and long-term needs. Implementing a management program is no small task. It can be expensive, time-consuming, and disruptive of normal operations; therefore, the choice of the management program requires careful selection and implementation. Care must be taken to increase the likelihood of successfully implementing new ventures in all types of organizations – business, nonprofit and governmental agencies. Many ventures fail, or achieve limited success, not because the idea isn't good but because the organization has not adequately

prepared its internal capabilities to meet the environmental conditions in which it operates. An important feature of this book is that it can be updated periodically to add new programs and phase out programs no longer relevant. The book will provide readers with a comprehensive description of the most popular management improvement programs and their primary applications to their organizations. We will discuss the philosophy and principles of these programs and include a discussion on how to use each program to achieve optimum success. A central theme of this book is to not just adopt an improvement program for the sake of adopting it, but to match the improvement program with the specific needs in an organization. In the chapters that follow, we will illustrate how this matching process can be conducted. Above all, we plan the book to be a concise and useful resource to both practitioners and academics. Here is what you can expect in the chapters.

This book presents a compilation of over 200 numerical problems and solutions that students can use to learn, practice and master the Inventory Control and Management concepts. Intended as a companion to any of the standard textbooks in Inventory Control and Management and written in simple language, it illustrates very clearly the steps students need to follow in order to solve a given problem. It also explains which solution methodologies can be used under which circumstances. Offering an ideal one-stop resource for mid-level engineering and business students who have taken Inventory Management or a related subject as an elective, this book is the only one students will ever need to prepare and gain confidence for their examinations in this subject.

Going beyond the usual supply chain text, Principles of Supply Chain Management not only details the individual components of the supply chain but also illustrates how the pieces must come together. Providing the logic behind why supply chain management is essential, the text examines how supply chains are evolving, looks ahead to future developments, and also provides a balanced look at supply chains with a focus on where it needs to be—the customer. It also: Describes the forward supply chain (from the supplier to the customer) and the reverse supply chain (recycling) Reviews contemporary sustainability concepts including triple bottom line, cradle-to-grave, and cradle-to-cradle Includes extensive discussions on retailing, distribution, and manufacturing topics Details supply chain flows of physical goods, information, and funds Highlights the need for coordinated change in technology, infrastructure, and cultures among supply chain members From the point of distribution all the way back to the point of origin, the text provides examples and case histories that illustrates a proven approach for achieving effective supply chain integration. This self-contained resource provides readers with a realistic appraisal of the state of the art in supply chain management and the understanding needed to build and manage effective supply chains in a wide-range of industries. Most importantly, it emphasizes the need for building and maintaining cooperation and collaboration among all members of the supply chain.

There are some very good books available that explain the Lean Manufacturing theory and touch on implementing its techniques. However, you cannot learn "how to be" lean from merely reading the theory. And to be successful in the real-work environment you need a clear comprehension of how lean techniques work, rather than just a remote understanding of what they are. You need to know what does and does not work in different situations. And you need the benefit of practical experience in their implementation. Lean Manufacturing: Tools, Techniques, and How to Use Them gives you the benefit of author and practitioner William Feld's 15 years of hands-on experience - and the lessons he's learned. Feld provides insight into the appropriate use of assessment, analysis, design, and, most importantly, deployment of

a successful lean manufacturing program. Packed with practical advice and tips but not bogged down in theory, this book covers how, why, when, and what to do while implementing lean manufacturing. It equips you with the tools and techniques you need along with an understanding of how and why they work. Feld explores why an integrated approach is so much more beneficial in securing sustained improvement. He focuses on the interdependency of the Five Primary Elements: organization, metrics, logistics, manufacturing flow, and process control. He describes a proven, applied approach to creating a lean program using these elements. To keep up globally, and even locally, your manufacturing operation must be responsive, flexible, predictable, and consistent. You must continually improve manufacturing operations and cultivate a self directed work force driven by output based, customer performance criteria. By applying what you learn from *Lean Manufacturing: Tools, Techniques, and How to Use Them* you can build a workforce - and an organization - with the capacity to satisfy world class expectations now and into the future.

Despite its exceptional frequency and versatility, GET has never been a focus of research in its entire variability, which goes from lexical to grammatical uses, nor in large amounts of data from different varieties of English. The present corpus-based study deals with over 11,600 tokens of GET in written and spoken language from three varieties of English and thus provides new insights for variationist linguistics. Firstly, it offers a comprehensive semasiological-syntactic analysis of GET, i.e. an analysis of all its meanings and all the constructions into which it enters, suggesting ten categories as being necessary for its complete description. Secondly, it contributes to the understanding of factors that are at work in variation in World Englishes and lead to quantitative differences between regional standard varieties. Thus, the present study demonstrates that the use of GET in the New Englishes analysed is less affected by substrate effects than by the effects of Second Language Acquisition and the varying influence of British and American English norms. Moreover, it can be shown that the New Englishes display more grammatical uses of GET than does British English.

This third edition provides operations management students, academics and professionals with a fully up-to-date, practical and comprehensive sourcebook in the science of distribution and Supply Chain Management (SCM). Its objective is not only to discover the roots and detail the techniques of supply and delivery channel networks, but also to explore the impact of the merger of SCM concepts and information technologies on all aspects of internal business and supply channel management. This textbook provides a thorough and sometimes analytical view of the topic, while remaining approachable from the standpoint of the reader. Although the text is broad enough to encompass all the management activities found in today's logistics and distribution channel organizations, it is detailed enough to provide the reader with a thorough understanding of essential strategic and tactical planning and control processes, as well as problem-solving techniques that can be applied to everyday operations. *Distribution Planning and Control: Managing in the Era of Supply Chain Management, 3rd Ed.* is comprised of fifteen chapters, divided into five units. Unit 1 of the text, *The SCM and Distribution Management Environment*, sets the background necessary to understand today's supply chain environment. Unit 2, *SCM Strategies, Channel Structures and Demand Management*, reviews the activities involved in performing strategic planning, designing channel networks, forecasting and managing channel demand. Unit 3, *Inventory Management in the Supply Chain Environment*, provides an in-depth review of managing supply chain inventories, statistical inventory management, and inventory management in a multiechelon channel environment. Unit 4, *Supply Chain Execution*, traces the translation of the strategic supply chain plans into detailed customer and supplier management, warehousing and transportation operations activities. Finally Unit 5, *International Distribution and Supply Chain Technologies*, concludes the text by exploring the role of two integral elements of SCM: international distribution management and

the deployment of information technologies in the supply chain environment. Each chapter includes summary questions and problems to challenge readers to their knowledge of concepts and topics covered. Additionally supplementary materials for instructors are also available as tools for learning reinforcement.

Eine Möglichkeit die Prognosegüte der Planung zu verbessern und eine Synchronisation der funktionalen Zielsysteme in Hinblick auf ihre Zeitplanungsgrößen zu ermöglichen, stellt die Synchronisierung von Zeitplanungsparametern dar. In der vorliegenden Dissertationsschrift wird daher ein Gestaltungskonzept entwickelt, welches dabei unterstützt, das effiziente Set an Zeitplanungsparametern für Variantenfertiger zu identifizieren und in etablierten betrieblichen Anwendungssystemen zu parametrieren.

This book draws new attention to domain-specific conceptual modeling by presenting the work of thought leaders who have designed and deployed specific modeling methods. It provides hands-on guidance on how to build models in a particular domain, such as requirements engineering, business process modeling or enterprise architecture. In addition to these results, it also puts forward ideas for future developments. All this is enriched with exercises, case studies, detailed references and further related information. All domain-specific methods described in this volume also have a tool implementation within the OMiLAB Collaborative Environment – a dedicated research and experimentation space for modeling method engineering at the University of Vienna, Austria – making these advances accessible to a wider community of further developers and users. The collection of works presented here will benefit experts and practitioners from academia and industry alike, including members of the conceptual modeling community as well as lecturers and students.

A detailed listing for management personnel of 2,300 business and business-related subjects, with a record of periodicals, organizations, bureaus, directories, bibliographies, and other sources concerned with each topic.

Operations Management: Managing Global Supply Chains takes a holistic, integrated approach to managing operations and supply chains by exploring the strategic, tactical, and operational decisions and challenges facing organizations worldwide. Authors Ray R. Venkataraman and Jeffrey K. Pinto address sustainability in each chapter, showing that sustainable operations and supply chain practices are not only attainable, but are critical and often profitable practices for organizations to undertake. With a focus on critical thinking and problem solving, Operations Management provides students with a comprehensive introduction to the field and equips them with the tools necessary to thrive in today's evolving global business environment. A Complete Teaching & Learning Package SAGE coursepacks FREE! Easily import our quality instructor and student resource content into your school's learning management system (LMS) and save time. Learn more. SAGE edge FREE online resources for students that make learning easier. See how your students benefit.

A detailed and thorough reference on the discipline and practice of systems engineering The objective of the International Council on Systems Engineering (INCOSE) Systems Engineering Handbook is to describe key process activities performed by systems engineers and other engineering professionals throughout the life cycle of a system. The book covers a wide range of fundamental system concepts that broaden the thinking of the systems engineering practitioner, such as system thinking, system science, life cycle management, specialty

engineering, system of systems, and agile and iterative methods. This book also defines the discipline and practice of systems engineering for students and practicing professionals alike, providing an authoritative reference that is acknowledged worldwide. The latest edition of the INCOSE Systems Engineering Handbook: Is consistent with ISO/IEC/IEEE 15288:2015 Systems and software engineering—System life cycle processes and the Guide to the Systems Engineering Body of Knowledge (SEBoK) Has been updated to include the latest concepts of the INCOSE working groups Is the body of knowledge for the INCOSE Certification Process This book is ideal for any engineering professional who has an interest in or needs to apply systems engineering practices. This includes the experienced systems engineer who needs a convenient reference, a product engineer or engineer in another discipline who needs to perform systems engineering, a new systems engineer, or anyone interested in learning more about systems engineering.

The two volumes IFIP AICT 397 and 398 constitute the thoroughly refereed post-conference proceedings of the International IFIP WG 5.7 Conference on Advances in Production Management Systems, APMS 2012, held in Rhodes, Greece, in September 2012. The 182 revised full papers were carefully reviewed and selected for inclusion in the two volumes. They are organized in 6 parts: sustainability; design, manufacturing and production management; human factors, learning and innovation; ICT and emerging technologies in production management; product and asset lifecycle management; and services, supply chains and operations.

In the 1950s, a method called Material Requirements Planning (or "MRP") changed the world of manufacturing forever. But times have changed--customer tolerance times are shorter, product variety and complexity has increased, and supply chains have spread around the world. MRP is dramatically failing in this "New Normal." Demand Driven Material Requirements Planning (DDMRP), Version 3 presents a practical, proven, and emerging method for supply chain planning and execution that effectively brings the 1950s concept into the modern era. The foundation of DDMRP is based upon the connection between the creation, protection, and acceleration of the flow of relevant materials and information to drive returns on asset performance in the New Normal. Using an innovative multi-echelon "Position, Protect and Pull" approach, DDMRP helps plan and manage inventories and materials in today's more complex supply scenarios, with attention being paid to ownership, the market, engineering, sales, and the supply base. It enables a company to decouple forecast error from supply order generation and build in line to actual market requirements, and promotes better and quicker decisions and actions at the planning and execution level. DDMRP is already in use by MAJOR Global 1000 companies. This book is THE definitive work on DDMRP, and will be required as courseware for all those taking the Certified Demand Driven Planner (CDDP) Program. New Features in Version 3 Full color, with the use in specific, consistent, and focused ways to

terms, showing the applicability to the oilfield service industry. The Customer-Anchored Supply Chain: • Takes ownership for the broad supply chain from its suppliers' suppliers to its customers' customers. • Segments its business by customer-application to focus its efforts on providing the products and services its customer's value as captured in critical success factors. • Sets its strategic goals to simultaneously achieve supply-chain imperatives (HS&E and quality), shareholder-driven goals, and customer-anchoring goals. • Drives customer requirements deep into the sales and operations planning, manufacturing, and procurement processes. • Implements supply-chain initiatives to tighten the links in the supply chain value stream to deliver the products and services the customer wants in short lead times, at the lowest cost and with less inventory. • Delivers on the promise of building sustainable competitive advantage.

Simplified theories, magic formulas, and popular catchwords will only take you so far when dealing with real-world logistics, operations, and supply chain management scenarios. The complex reality of day-to-day operations in organizations within industry and the service sector demands highly diligent work. Integral Logistics Management: Operations and Supply Chain Management Within and Across Companies, Fifth Edition prepares students to tackle the logistical, planning, and managerial challenges they'll face on the job. It covers both the theoretical and practical aspects of the differing characteristics, tasks, methods, and techniques of planning and control in company logistics. Updates to this edition include: An additional chapter on supply chain design, encompassing a major section on the integrated design of production, distribution, retail, service, and transportation networks An extended section on sustainability in supply chains, comprising the measurement of environmental performance An expanded chapter on product families and one-of-a-kind production, containing new methods for the "engineer-to-order" production environment New sections on the use of available-to-promise and capable-to-promise methods, as well as the use of enabling technologies toward personalized production The book examines the logistical characteristics of product variety, including made-to-order, assemble-to-order, engineer-to-order, and additive manufacturing for personalized orders. The material in the text covers most of the key terms in the five CPIM modules contained in the APICS CPIM Exam Content Manual, as well as in the CSCP program—making it an ideal self-study resource. As with the previous edition, the text provides readers with online access to Interactive Macromedia Flash elements and other helpful downloads. The book's website has been updated with further learning materials and the comprehensive index has also been expanded. Summaries, key words, cases, and exercises are included in each chapter.

“An Industrial Product-Service System is characterized by the integrated and mutually determined planning, development, provision and use of product and service shares including its immanent software components in Business-to-Business applications and represents a knowledge-intensive socio-technical

system.” – Meier, Roy, Seliger (2010) Since the first conference in 2009, the CIRP International Conference on Industrial Product-Service Systems has become a well-established international forum for the review and discussion of advances, research results and industrial improvements. Researchers from all over the world have met at previous IPS2 conferences in Cranfield (2009), Linköping (2010), Braunschweig (2011) and Tokyo (2012). In 2013, the 5th CIRP International Conference on Industrial Product-Service Systems is held in Bochum. Important topics of IPS2 research presented at the conference are: planning and development, sustainability, business models, operation, service engineering, knowledge management, ICT, modeling and simulation, marketing and economic aspects as well as the role of the human in IPS2.

"The documented benchmarks for success and the many examples help explicate the complexities for the reader. The book is organized and written so that it will be useful as an introduction to the field and also as a reference when special challenges arise for the practicing manager." -- DR. JOHN J. COYLE, Professor Emeritus of Logistics and Supply Chain Management, Department of Supply Chain and Information Systems, Smeal College of Business, Pennsylvania State University

"The book is a must-read for all supply chain managers seeking to drive down costs and improve profits and must be read before any investment is made in your supply chain. Get copies for your controller and all senior managers...this book lays it all out." -- DR. RICHARD LANCIANI, Chair, Marketing & Supply Chain Management, Fox School of Business, Temple University

Expert Strategies for Improving Supply Chain and Logistics Performance Using Lean This practical guide reveals how to identify and eliminate waste in your organization's supply chain and logistics function. Lean Supply Chain and Logistics Management provides explanations of both basic and advanced Lean tools, as well as specific Lean implementation opportunities. The book then describes a Lean implementation methodology with critical success factors. Real-world examples and case studies demonstrate how to effectively use this powerful strategy to realize significant, long-term improvements and bottom-line savings. COVERAGE INCLUDES: * Using Lean to energize your supply chain * The eight wastes * Lean opportunities and JIT in supply chain and logistics * Lean tools and warehouse * Global lean supply chain and logistics * Lean opportunity assessment, value stream mapping, and Kaizen event management * Best-in-class use of technology with Lean * Metrics and measurement * Education and training Valuable training slides are available for download.

This book offers a comprehensive overview of cutting-edge approaches for decision-making in hierarchical organizations. It presents soft-computing-based techniques, including fuzzy sets, neural networks, genetic algorithms and particle swarm optimization, and shows how these approaches can be effectively used to deal with problems typical of this kind of organization. After introducing the main classical approaches applied to multiple-level programming, the book describes a

