

Ravi Shankar Industrial Engineering And Management

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Industrial Engineering and Operations Management | João Reis 2019-04-13 Based on the 2018 International Joint Conference on Industrial Engineering and Operations Management (IJCIEOM) conference that took place in Lisbon, Portugal, this proceedings volume is the first of two focusing on mathematical applications in digital transformation. The different contributions in this volume explore topics such as modelling, simulation, logistics, innovation, sustainability, health care, supply chain, lean manufacturing, operations management, quality and digital. Written by renowned scientists from around the world, this multidisciplinary volume serves as a reference on industrial engineering and operations management and as a source on current findings for researchers and students aiming to work on industrial-related problems.

INDUSTRIAL ENGINEERING AND MANAGEMENT RAVI, V. 2015-08-31 The book is primarily intended as a text for all branches of B.Tech, M.Tech and MBA courses. Beginning with an introduction to industrial engineering, it discusses contributions and thoughts of classical (Taylor, Fayol, and Weber's), neo-classical (Hawthorne) and modern thinkers. The book explains different functions of management, and differentiate between management and administration. Various types of business organisations with their structures and personnel management also find place in the book. Topics related to facilities location, material handling, work study, job evaluation and merit rating, wages and incentives that are of prime importance in any business are discussed. The book is aimed at providing a better understanding of industrial operations with practical approach. Financial aspects related to business operations such as financial management, management accounting, breakeven analysis, depreciation and replacement policies for equipment assume prime importance. Numerical examples have been solved at appropriate places to create interest in readers. Marketing aspects of business as marketing management, new product development and sales forecasting methods are discussed, besides management and control of operations. For maintaining industrial peace, good relationship between employers and employees is essential. Chapters on industrial relations, industrial safety and industrial legislations are introduced with the objective of providing readers with information on these important aspects. Good decision-making is what differentiates a good manager from a bad one. Thus, a chapter on decision-making is added to examine its skill. Network constructions, CPM, PERT have been covered under project management. Quantitative techniques for decision-making as linear programming, transportation problems, assignment problems, game theory, queuing theory, etc., are also discussed in this textbook. **KEY FEATURES** • Lucid presentation of the concepts. • Illustrative figures and tables make the reading more fruitful and enriching. • Numerical problems with solutions form an integral part of the book, making it application-oriented. • Chapter-end review questions test the students' knowledge of the fundamental concepts.

Research Anthology on Architectures, Frameworks, and Integration Strategies for Distributed and Cloud Computing Management Association, Information Resources 2021-01-25 Distributed systems intertwine with our everyday lives. The benefits and current shortcomings of the underpinning technologies are experienced by a wide range of people and their smart devices. With the rise of large-scale IoT and similar distributed systems, cloud bursting technologies, and partial outsourcing solutions, private entities are encouraged to increase their efficiency and offer unparalleled availability and reliability to their users. The Research Anthology on Architectures, Frameworks, and Integration Strategies for Distributed and Cloud Computing is a vital reference source that provides valuable insight into current and emergent research occurring within the field of distributed computing. It also presents architectures and service frameworks to achieve highly integrated distributed systems and solutions to integration and efficient management challenges faced by current and future distributed systems. Highlighting a range of topics such as data sharing, wireless sensor networks, and scalability, this multi-volume book is ideally designed for system administrators, integrators, designers, developers, researchers,

academicians, and students.

Handbook of Research on Interdisciplinary Approaches to Decision Making for Sustainable Supply Chains Awasthi, Anjali 2019-09-27 Businesses must create initiatives and adopt eco-friendly practices in order to adhere to the sustainability goals of a globalized world. Recycling, product service systems, and green manufacturing are just a few methods businesses use within a sustainable supply chain. However, these tools and techniques must also ensure business growth in order to remain relevant in an environmentally-conscious world. The **Handbook of Research on Interdisciplinary Approaches to Decision Making for Sustainable Supply Chains** provides interdisciplinary approaches to sustainable supply chain management through the optimization of system performance and development of new policies, design networks, and effective reverse logistics practices. Featuring research on topics such as industrial symbiosis, green collaboration, and clean transportation, this book is ideally designed for policymakers, business executives, warehouse managers, operations managers, suppliers, industry professionals, sustainability developers, decision makers, students, academicians, practitioners, and researchers seeking current research on reducing the environmental impacts of businesses via sustainable supply chain planning.

Agile Manufacturing Systems K Hans Raj 2011-12-17 Agility has become very important for the industries today as the lifetimes of the products are continuously shrinking. This book provides an excellent opportunity for updating understanding of agile methods from the design, manufacturing and business process perspectives, whether one is an industrial practitioner, academic researcher engineer or business graduate student. This volume is a compilation of various important aspects of agility consisting of systemic considerations in manufacturing, agile software systems, agile business systems, agile operations research, flexible manufacturing systems, advanced manufacturing systems with improved materials and mechanical behavior of products, agile aspects of design, clean and green manufacturing systems, environment, agile defence systems.

Proceedings of 2013 4th International Asia Conference on Industrial Engineering and Management Innovation (IEMI2013) Ershi Qi 2014-01-16 The purpose of the 4th International Asia Conference on Industrial Engineering and Management Innovation (IEMI 2013) is to bring together researchers, engineers and practitioners interested in the application of informatics to usher in new advances in the industrial engineering and management fields.

Gurus of Modern Yoga Mark Singleton 2014 *Gurus of Modern Yoga* explores the contributions that individual gurus have made to the formation of the practices and discourses of yoga in today's world.

ISOM 2013 Proceedings (GIAP Journals, India) Global Institutes Amritsar and University of Mauritius

Managing Flexibility Sushil 2015-07-16 This edited book provides a conceptual framework of managing flexibility in the areas of people, process, technology and business supported by researches/case applications in various types of flexibilities in business. The book is organized into following five parts: (i) Managing Flexibility; (ii) People Flexibility; (iii) Process Flexibility; (iv) Flexibility in Technology and Innovation Management; and (v) Business Flexibility. Managing flexibility at the level of people, process, technology and business encompasses the requirements of both choice and speed. The need for managing flexibility is growing to cope with the developments and challenges in the global business environment. This can be seen from reactive as well as proactive perspectives. Flexibility is a major dimension of business excellence and deals with a paradoxical view point such as stability and dynamism, continuity and change, centralization and decentralization, and so on. It needs to be managed at the levels of people, process, technology and various business functions and it is important to create flexibility at the level of people to create and manage flexibility in processes and technologies in order to support flexible business requirements.

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.

Optimization of Manufacturing Processes Kapil Gupta 2019-06-25 This book provides a detailed understanding of optimization methods as they are implemented in a variety of manufacturing, fabrication and machining processes. It covers the implementation of statistical methods, multi-criteria decision making methods and evolutionary techniques for single and multi-objective optimization to improve quality, productivity, and sustainability in manufacturing. It reports on the theoretical aspects, special features, recent research and latest development in the field. *Optimization of Manufacturing Processes* is a valuable source of information for researchers and practitioners, as it fills the gap where no dedicated book is available on intelligent manufacturing/modeling and optimization in manufacturing. Readers will develop an understanding of the implementation of statistical and evolutionary techniques for modeling and optimization in manufacturing.

Operations and Service Management: Concepts, Methodologies, Tools, and Applications Management Association, Information Resources 2017-11-30 Organizations of all types are consistently working on new initiatives, product lines, and workflows as a way to remain competitive in the modern business environment. No matter the type of project at hand, employing the best methods for effective execution and timely completion of

the task is essential to business success. Operations and Service Management: Concepts, Methodologies, Tools, and Applications is a comprehensive reference source for the latest research on business operations and production processes. It examines the need for a customer focus and highlights a range of pertinent topics such as financial performance measures, human resource development, and business analytics, this multi-volume book is ideally designed for managers, professionals, students, researchers, and academics interested in operations and service management.

Systemic Flexibility and Business Agility Sushil 2014-12-16 This book provides a conceptual framework for systemic flexibility and business agility, drawing on a basis of research/case applications in various types of flexibility and agility in business. The selected papers address a variety of issues concerning the theme of systemic flexibility and business agility and are organized into following five parts: (i) Systemic and Strategic Flexibility; (ii) Information and Business Agility; (iii) Flexibility, Innovation and Business Excellence; (iv) Flexibility in Value and Supply Chains; and (v) Financial Flexibility and Mergers & Acquisitions. Flexibility and agility in business are emerging as key dimensions of business excellence that encompass the requirements of both choice and speed. The two concepts, flexibility and agility, have been used in multiple ways and often interchangeably, both in literature and in practice. The growing need for flexibility/agility in business can be seen from reactive as well as proactive perspectives. A business enterprise is expected to possess reactive flexibility/agility (as adaptability and responsiveness) in order to cope with the changing and uncertain business environment. It may also endeavor to intentionally generate flexibility/agility as a strategic change in a variety of ways, such as leadership change, reengineering, innovation in products and processes, use of information and communication technology, and learning orientation.

Production and Operations Management S.P. Singh This book covers the emerging and important topics related to production and operations management in a systematic way. It covers not only the essentials of planning, designing, managing and controlling of manufacturing operations, but also a number of relevant topics such as total preventive maintenance, environmental issues in production system, advanced production system, total productivity management and work system design, which are not covered in many books. The book is a useful resource for undergraduate and postgraduate students of MBA programmes, as well as B.Tech and M.Tech programmes of production and industrial engineering. Key Features • Theories and concepts based on day-to-day practical applications in the industry • Large number of solved examples to explain the theoretical concepts • Case study at the end of each chapter to illustrate the theory • Brings out the link between linear programming and its applications

Advances in Manufacturing Technology and Management Ranganath M. Singari 2022-12-12 This book presents the select peer-reviewed proceeding of the International Conference on Advanced Production and Industrial Engineering (ICAPIE) – 2021 held at Delhi Technological University. It covers recent trends in various fields of mechanical engineering. The broad range of topics and issues covered include mechanical system engineering, materials engineering, micro-machining, renewable energy, industrial engineering and additive manufacturing. This book will be useful for students, researchers and professionals working in the area of mechanical and allied engineering discipline.

Remanufacturing Modeling and Analysis Mehmet Ali Ilgin 2016-04-19 New, Now, Next. Consumers' ever growing appetite to acquire new products and their short courtship with them has kept manufacturers busy not only expending resources at an alarming rate, but also depleting these resources and giving rise to waste and pollution at a correspondingly increasing and disturbing rate. Traditional manufacturing methods that use mainly virgin materials to produce new products and dispose of the used products at the end of their lives are quickly becoming unsustainable. In addition, regulations that require manufacturers to take back products and dispose of them responsibly have forced manufacturers to establish dedicated facilities for product recovery—systems that minimize waste and maximize remanufacturing and recycling. Remanufacturing Modeling and Analysis explores the design, planning and processing issues encountered in remanufacturing systems and provides examples of quantitative modeling methodologies to deal with them. The book covers the history, industry size and potential, comparison with other end-of-life options, benefits, conditions, challenges, and steps in a typical process. It provides a brief overview of each of the industrial engineering and operations research techniques used in the book and explains the models developed to increase the remanufacturability of product designs. The book also discusses how increasingly stringent environmental regulations and decreasing natural resources influence manufacturers toward more environmentally conscious manufacturing and product recovery initiatives. With easy-to-use mathematical or simulation modeling that demonstrates solutions for each remanufacturing issue, the book helps practitioners understand how a particular issue can be effectively modeled and how to choose the appropriate solution methodology. An in-depth look at quantitative analysis for remanufacturing systems, the book provides a foundation upon which to build a body of knowledge in this fast and growing area.

Decision Management: Concepts, Methodologies, Tools, and Applications Management Association, Information Resources 2017-01-30 The implementation of effective decision making protocols is crucial in any organizational environment in modern society. Emerging advancements in technology and analytics have optimized uses and

applications of decision making systems. *Decision Management: Concepts, Methodologies, Tools, and Applications* is a compendium of the latest academic material on the control, support, usage, and strategies for implementing efficient decision making systems across a variety of industries and fields. Featuring comprehensive coverage on numerous perspectives, such as data visualization, pattern analysis, and predictive analytics, this multi-volume book is an essential reference source for researchers, academics, professionals, managers, students, and practitioners interested in the maintenance and optimization of decision management processes.

Logistics Operations and Management Reza Farahani 2011-05-25 This book provides a comprehensive overview of how to strategically manage the movement and storage of products or materials from any point in the manufacturing process to customer fulfillment. Topics covered include important tools for strategic decision making, transport, packaging, warehousing, retailing, customer services and future trends. An introduction to logistics Provides practical applications Discusses trends and new strategies in major parts of the logistic industry Trends in Industrial Engineering Applications to Manufacturing Process Jorge Luis García-Alcaraz This book covers supply chain and logistics, production and manufacturing systems as well as human factors. Topics such as applications to procurements from suppliers, suppliers developments and relationships with suppliers are reported. The techniques and tools applied to production processes, such as, machinery maintenance and quick changeover, are described in detail. The book also presents human factors as the main component in the industrial engineering field, reporting some successful teamwork organizations for improvements and applied ergonomics, among others.

Proceedings of the 23rd International Conference on Industrial Engineering and Engineering Management 2016 Ershi Qi 2017-03-07 International Conference on Industrial Engineering and Engineering Management is sponsored by Chinese Industrial Engineering Institution, CMES, which is the unique national-level academic society of Industrial Engineering. The conference is held annually as the major event in this area. Being the largest and the most authoritative international academic conference held in China, it supplies an academic platform for the experts and the entrepreneurs in International Industrial Engineering and Management area to exchange their research results. Many experts in various fields from China and foreign countries gather together in the conference to review, exchange, summarize and promote their achievements in Industrial Engineering and Engineering Management fields. Some experts pay special attention to the current situation of the related techniques application in China as well as their future prospect, such as Industry 4.0, Green Product Design, Quality Control and Management, Supply Chain and logistics Management to cater for the purpose of low-carbon, energy-saving and emission-reduction and so on. They also come up with their assumption and outlook about the related techniques' development. The proceedings will offer theatrical methods and technique application cases for experts from college and university, research institution and enterprises who are engaged in theoretical research of Industrial Engineering and Engineering Management and its technique's application in China. As all the papers are feathered by higher level of academic and application value, they also provide research data for foreign scholars who occupy themselves in investigating the enterprises and engineering management of Chinese style.

Environment Conscious Manufacturing Surendra M. Gupta 2007-12-19 Hotter temperatures, less arctic ice, loss of habitat-every other day, it seems, global warming and environmental issues make headlines. Consumer-driven environmental awareness combined with stricter recycling regulations have put the pressure on companies to produce and dispose of products in an environmentally responsible manner. Redefining indus Encyclopedia of Information Science and Technology Mehdi Khosrow-Pour 2009 "This set of books represents a detailed compendium of authoritative, research-based entries that define the contemporary state of knowledge on technology"--Provided by publisher.

Managing Supply Chain Risk and Disruptions: Post COVID-19 Aravind Raj Sakthivel 2021-06-24 This book summarizes the effect of COVID-19 on the global supply chain. Eminent researchers, practitioners, and professors discuss the challenges faced by supply chain providers and supply chain strategies related to various global, retail, fast moving consumer goods, humanitarian, pharmaceutical, and agricultural supply chains. This book also suggests the resilient approach adopted by supply chain organizations for quick recovery and re-establishing their networks. This book helps the readers explore the pandemic's impact on the supply chain and rebuilding the same using suitable approaches.

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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.

Pro HTML5 Games Aditya Ravi Shankar 2017-10-05 Build your next game on a bigger scale with Pro HTML5 Games. This essential book teaches you to master advanced game programming in HTML5. You'll learn techniques that you can transfer to any area of HTML5 game development to make your own professional HTML5 games. Led by an expert game programmer, you'll build two complete games in HTML5: a strategy puzzle game based on the Box2d physics engine and in the style of Angry Birds and a real-time strategy (RTS) game complete with units, buildings, path-finding, artificial intelligence, and multiplayer support. This new and fully updated second edition now includes chapters on mobile game development and an essential game developer's toolkit. Understand how to develop complex, bolder games and become an HTML5 games pro using Pro HTML5 Games today. What You'll Learn Create realistic physics in your game by incorporating the Box2d physics engine Design large worlds with lots of characters and let users interact with them Use sprite sheets, panning, parallax scrolling, and sound effects to build a more polished game Incorporate pathfinding and steering to help characters navigate through your world Create challenging levels with intelligent enemies by using decision trees, state machines, and scripted events Add multiplayer in your games using Node.js and the WebSocket API

Bioprocess Engineering for a Green Environment V. Sivasubramanian 2018-05-04 Bioprocess Engineering for a Green Environment examines numerous bioprocesses that are crucial to our day-to-day life, specifically the major issues surrounding the production of energy relating to biofuels and waste management. The nuance of this discussion is reflected by the text's chapter breakdown, providing the reader with a fulsome investigation of the energy sector; the importance of third-generation fuels; and the application of micro- and macroalgae for the production of biofuels. The book also provides a detailed exploration of biocatalysts and their application to the food industry; bioplastics production; conversion of agrowaste into polysaccharides; as well as the importance of biotechnology in bio-processing. Numerous industries discharge massive amounts of effluents into our rivers, seas, and air systems. As such, two chapters are dedicated to the treatment of various pollutants through biological operation with hopes of achieving a cleaner, greener, environment. This book represents the most comprehensive study of bioprocessing—and its various applications to the environment—available on the market today. It was furthermore written with various researchers in mind, ranging from undergraduate and graduate students looking to enhance their knowledge of the topics presented to scholars and engineers interested in the bioprocessing field, as well as members of industry and policy-makers. Provides a comprehensive overview of bioprocesses that apply to day-to-day living. Is learner-centered, providing detailed diagrams for easy understanding. Explores the importance of biocatalysts and their applications to the food industry, as well as bioplastics production. Examines the unique capabilities of bioprocess engineering and its ability to treat various pollutants. .

Handbook of Computational Intelligence in Manufacturing and Production Management Laha, Dipak 2007-11-30 During the last two decades, computer and information technologies have forced great changes in the ways businesses manage operations in meeting the desired quality of products and services, customer demands, competition, and other challenges. The Handbook of Computational Intelligence in Manufacturing and Production Management focuses on new developments in computational intelligence in areas such as forecasting, scheduling, production planning, inventory control, and aggregate planning, among others. This comprehensive collection of research provides cutting-edge knowledge on information technology developments for both researchers and professionals in fields such as operations and production management, Web engineering, artificial intelligence, and information resources management.

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.

Emerging Methods in Predictive Analytics: Risk Management and Decision-Making Hsu, William H. 2014-01-31 Decision making tools are essential for the successful outcome of any organization. Recent advances in predictive analytics have aided in identifying particular points of leverage where critical decisions can be made. Emerging Methods in Predictive Analytics: Risk Management and Decision Making provides an interdisciplinary approach to predictive analytics; bringing together the fields of business, statistics, and information technology for effective decision making. Managers, business professionals, and decision makers in diverse fields will find the applications and cases presented in this text essential in providing new avenues for risk assessment, management, and predicting the future outcomes of their decisions.

Industrial Engineering And Management O. P. Khanna 1980

Microbes in Land Use Change Management Jay Shankar Singh 2021-08-20 Microbes in Land Use Change Management details the various roles of microbial resources in management of land uses and how the microbes

can be used for the source of income due to their cultivation for the purpose of biomass and bioenergy production. Using various techniques, the disturbed and marginal lands may also be restored eco-friendly in present era to fulfil the feeding needs of mankind around the globe. Microbes in Land Use Change Management provides standard and up to date information towards the land use change management using various microbial technologies to enhance the productivity of agriculture. Needless to say that Microbes in Land Use Change Management also considers the areas including generation of alternative energy sources, restoration of degraded and marginal lands, mitigation of global warming gases and next generation -omics technique etc. Land use change affects environment conditions and soil microbial community. Microbial population and its species diversity have influence in maintaining ecosystem balance. The study of changes of microbial population provides an idea about the variation occurring in a specific area and possibilities of restoration. Meant for a multidisciplinary audience Microbes in Land Use Change Management shows the need of next-generation omics technologies to explore microbial diversity. Describes the role of microbes in generation of alternative source of energy Gives recent information related to various microbial technology and their diversified applications Provides thorough insight in the problems related to landscape dynamics, restoration of soil, reclamation of lands mitigation of global warming gases etc. eco-friendly way using versatility of microbes Includes microbial tools and technology in reclamation of degraded, disturbed and marginal lands, mitigation of global warming gases Advances in Manufacturing and Industrial Engineering Ranganath M. Singari 2021-01-13 This book presents selected peer reviewed papers from the International Conference on Advanced Production and Industrial Engineering (ICAPIE 2019). It covers a wide range of topics and latest research in mechanical systems engineering, materials engineering, micro-machining, renewable energy, industrial and production engineering, and additive manufacturing. Given the range of topics discussed, this book will be useful for students and researchers primarily working in mechanical and industrial engineering, and energy technologies.

Emerging Trends in Mechanical Engineering L. Vijayaraghavan 2019-12-11 This book comprises select proceedings of the International Conference on Emerging Trends in Mechanical Engineering (ICETME 2018). The book covers various topics of mechanical engineering like computational fluid dynamics, heat transfer, machine dynamics, tribology, and composite materials. In addition, relevant studies in the allied fields of manufacturing, industrial and production engineering are also covered. The applications of latest tools and techniques in the context of mechanical engineering problems are discussed in this book. The contents of this book will be useful for students, researchers as well as industry professionals.

Web-Based Green Products Life Cycle Management Systems: Reverse Supply Chain Utilization Wang, Hsiao-Fan 2008-12-31 Provides a review of current and potential research in green management and control.

Bio-Materials and Prototyping Applications in Medicine Paulo Jorge Bártolo 2007-12-03 Rapid prototyping is used to design and develop medical devices and instrumentation. This book details research in rapid prototyping of bio-materials for medical applications. It provides a wide variety of examples of medical applications using rapid prototyping, including tissue engineering, dental applications, and bone replacement. Coverage also discusses the emergence of computer aided design in the development of prosthetic devices.

Industrial Engineering and Management Dr. Ravi Shankar 2003-01-01 The book is intended to serve as a text book for the Industrial Engineering and Management courses. It seeks to develop an understanding of the concepts based on careful discussion of models, applications and related research. The chapters are well planned to cover the recent advancements in the area. Role of the industrial engineering as a change agent is being crafted by exposing to the area of continuous improvement (TQM), benchmarking and reengineering. Many recent developments, such as ERP, MRP, MRP II, Theory of constraints, advanced manufacturing system, AGV, Just-in-Time system, supply chain, etc. have received adequate attention in this book.

Pursuing Sustainability Chialin Chen 2021-03-03 This handbook includes three parts, corresponding to the following three domains of OR/MS research related to sustainability: (i) Systems Design, Innovation, and Technology, (ii) Manufacturing, Logistics, and Transportation, and (iii) Sustainable Natural Resource Management. The first part of the handbook (Chapters 2-6) will focus on the creation and development of sustainable products, services, value chains, and organizations from a systems perspective. Key areas to be covered include Green Design & Innovation, Technology and Engineering Management, Sustainable Value Chain Systems, Sustainability Standards and Performance Evaluation, and Circular Economy and New Research Directions in Sustainability. The second part of the handbook (Chapters 7-11) will concentrate on the major operational and logistic issues faced by today's industries in pursuing sustainability. Key areas to be covered include Remanufacturing, Reverse Logistics, Closed-Loop Supply Chains, Sustainable Transportation, and New Research Directions in Green Supply Chain Management. The third part of the proposed handbook (Chapters 12-16) will center on major sustainability issues in managing engineering infrastructure and natural resources. Key areas to be covered include Renewable Energy, Sustainable Water Resource, Biofuel Infrastructure, Natural Gas, and New Research Direction in Sustainable Resource Management. The handbook aims to bridge the three main OR/MS research domains in sustainability: "Systems Design, Innovation, and Technology," "Manufacturing, Logistics, and Transportation," and "Sustainable Natural Resource Management."

Traditionally, these domains are treated separately in the OR/MS literature. By combining the three domains, the handbook will provide a more holistic treatment of MS/OR methodologies to address critical sustainability issues faced by today's society. Unlike most existing handbooks which only focus on current OR/MS research in sustainability within a domain, this handbook will include a concluding chapter in each of the three parts to discuss and identify potential future research directions in each of the three main domains.

Multi-Criteria Decision Analysis in Management Behl, Abhishek 2020-02-01 Multi-criteria decision making (MCDM) has been extensively used in diverse disciplines, with a variety of MCDM techniques used to solve complex problems. A primary challenge faced by research scholars is to decode these techniques using detailed step-by-step analysis with case studies and data sets. The scope of such work would help decision makers to understand the process of using MCDM techniques appropriately to solve complex issues without making mistakes. Multi-Criteria Decision Analysis in Management provides innovative insights into the rationale behind using MCDM techniques to solve decision-making problems and provides comprehensive discussions on these techniques from their inception, development, and growth to their advancements and applications. The content within this publication examines hybrid multicriteria models, value theory, and data envelopment. Ideal for researchers, management professionals, students, operations scholars, and academicians, this scholarly work supports and enhances the decision-making process.

Advances in Industrial and Production Engineering Kripa Shanker 2019-04-23 This book comprises select proceedings of the International Conference on Future Learning Aspects of Mechanical Engineering (FLAME 2018). The book discusses different topics of industrial and production engineering such as sustainable manufacturing systems, computer-aided engineering, rapid prototyping, manufacturing management and automation, metrology, manufacturing process optimization, casting, welding, machining, and machine tools. The contents of this book will be useful for researchers as well as professionals.