Sustainable Packaging Design A Holistic Methodology For | 966d8bb24deab1b71808ab3ebb3e3771

Packaging Sustainability Handbook of Food Engineering, Third Edition

Probiotic Beverages Polyhydroxyalkanoate (PHA) based Blends, Composites and Nanocomposites
Sustainable Food Supply Chains
Sustainable Branding
Sustainable Design and Manufacturing 2017
Operations Management Trends in Beverage Packaging
Thinking about the box
Handbook on the Sustainable Supply Chain
Roadmap to Sustainable Textiles and Clothing
Life Cycle Assessment

Research on the Applications of International Transportation and Logistics for World Trade
Sustainable Manufacturing and Design
Customer Satisfaction and Sustainability Initiatives in the Fourth Industrial Revolution
Coatings
Designing Sustainable Business Development: In The Context of Economic Diversity in Developing Countries
Food Industry Wastes
Creating Value Through Packaging
Ethics, Social Responsibility and Sustainability in Marketing
Experiencing Food, Designing
Sustainable Grocery

Plastics & Sustainability
Grey is the New Green
Environmental Footprints of Packaging
The Importance of New Technologies and Entrepreneurship in Business Development:
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Probiotic Beverages Polyhydroxyalkanoate (PHA) based Blends, Composites and Nanocomposites
This book presents detailed discussions concerning the environmental footprints of various packaging systems and materials, life cycle assessments of packaging, sustainable design of various packaging systems and materials, as well as the biodegradation of various packaging materials.

Sustainable Food Supply Chains
Operations Management is an area of business concerned with managing the process that converts inputs into outputs, in the form of goods and/or services. Increasingly complex environments together with the recent economic swings and substantially squeezed industrial margins put extra pressure on companies, and decision makers are pushed to increase operations efficiency and effectiveness. This book presents the contributions of a selected group of researchers, reporting new ideas, original results and practical experiences as well as systematizing some fundamental topics in Operations Management. Although it currently only offers a small sample of the research activity on Operations Management, people from diverse backgrounds, academia, industry and research as well as engineering students can take advantage of this volume.

Sustainable Branding
This book covers the elements involved in achieving sustainability in textiles and Clothing sector. The chapters to be covered in three volumes of this series title cover all the distinctive areas earmarked for achieving sustainable development in textiles and the clothing industry. This second volume deals with the measurement of environmental and societal impacts across the textiles and clothing supply chain. It addresses this important aspect in a comprehensive way, including the overall picture of environmental and societal impacts of textiles and clothing supply chain, environmentally sustainable clothing consumption, emerging green technologies and eco-friendly products for sustainable textiles, etc. This volume has a dedicated place to address the consumer phase impacts in the life cycle of clothing products, biodegradation of textile products, sustainable business development and its implications in textile sector.

Sustainable Design and Manufacturing 2017
Operations Management In today’s developing world, international trade is a field that is rapidly growing. Within this economic market, traders need to implement new approaches in order to satisfy consumers’ rising demands. Due to the high level of competition, merchants have focused on developing new transportation and logistics strategies. In order to execute effective transportation tactics, decision makers need to know the fundamentals, current developments, and future trends of intercontinental transportation. The Handbook of Research on the Applications of International Transportation and Logistics for World Trade provides emerging research exploring the effective and productive solutions to global transportation and logistics by applying fundamental and in-depth knowledge together with current applications and future aspects. Featuring coverage on a broad range of topics such as international regulations, inventory management, and distribution networks, this book is ideally designed for logistics authorities, trading companies, logistics operators, transportation specialists, government officials, managers, policymakers, researchers, academicians, and students.

Trends in Beverage Packaging Trends in Beverage Packaging, volume 16 in the Science of Beverages series, presents an interdisciplinary approach that provides a complete understanding of packaging theories, technologies and materials. This reference offers a broad perspective regarding current trends in packaging research, quality control techniques, packaging strategies and current concerns in the industry. Consumer demand for bottled and packaged beverages has increased, and
the need for scientists and researchers to understand how to analyze quality, safety and control are essential. This is an all-encompassing resource for research and development in this flourishing field that covers everything from sensory and chemical composition, to materials and manufacturing. Includes information on the monitoring of microbial activity using antimicrobial packaging detection of food borne pathogens Presents the most up-to-date information on innovations in smart packaging and sensors for the beverages industry Discusses the uses of natural and unnatural compounds for food safety and good manufacturing practices

Thinking-about-the-box A comprehensive overview of the recent accomplishments in the area of polyhydroxalkanoates.

Handbook on the Sustainable Supply Chain This monograph focuses on the issues facing sustainability in supply chains. Specifically it provides an overview of green supply chain management (GSCM) and the management of technology within this context. The topics include the operational and technological activities and characteristics of GSCM management. Organizational greening activities that play a role in GSCM operations are presented. The monograph also provides functional activities of the GSCM which include supplier management, internal operations management, logistics, and reverse logistics issues. Managerial considerations related to planning, justifying, and implementing GSCM and the respective technologies provide some insights into management decisions that will be faced in this environment. The references and bibliography provide a dozens of additional readings for those interested in this emergent and complex issue.

Roadmap to Sustainable Textiles and Clothing Food Industry Wastes: Assessment and Recovery of Commodities presents emerging techniques and opportunities for the treatment of food wastes, the reduction of water footprint, and creating sustainable food systems. Written by a team of experts from around the world, this book provides a guide for implementing bioprocessing techniques. It also helps researchers develop new options for the recovery of these wastes for community benefit. More than 34 million tons of food waste was generated in the United States in 2009, at a cost of approximately $43 billion. And while less than three percent of that waste was recovered and recycled, there is growing interest and development in recovering and recycling food waste. These processes have the potential not only to reduce greenhouse gases, but also to provide energy and resources for other purposes. This book examines these topics in detail, starting with sources characterization and composition of food wastes, and development of green production strategies. The book then turns to treatment techniques such as solid-state fermentation and anaerobic digestion of solid food waste for biogas and fertilizer. A deep section on innovative biocatalysts and bioreactors follows, encompassing hydrogen generation and thermophilic aerobic bioprocessing technologies. Rounding out the volume are extensive sections on water footprints, including electricity generation from microbial fuel cells (MFCs), and life cycle assessments. Food waste is an area of focus for a wide range of related industries from food science to energy and engineering Outlines the development of green product strategies International authoring team represents the leading edge in research and development Highlights leading trends of current research as well as future opportunities for reusing food waste

Life Cycle Assessment Handbook This book gathers a selection of the best papers presented at the joint international conference ICIEOM-CIO-IIE 2015, offering recent research on industrial engineering, management and operations from an international and interdisciplinary perspective. It includes contributions from different fields, such as operations research, modeling and simulation, production and service management and logistics, information systems and quality, and as such is of interest to both researchers and practitioners. Reflecting the interconnected nature of today’s production systems, characterized by intense flows of goods, information and individuals between companies and nations, it is a valuable resource for anyone wanting an in-depth understanding of the field to guide managerial practice in order to take full advantage of existing opportunities.

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

Multisensory Packaging The international conference on Automation and Robotics-ICAR2011 is held during December 12-13, 2011 in Dubai, UAE. The proceedings of ICAR2011 have been published by Springer Lecture Notes in Electrical Engineering, which include 163 excellent papers selected from more than 400 submitted papers. The conference is intended to bring together the researchers and engineers/technologists working in different aspects of intelligent control systems and optimization, robotics and automation, artificial intelligence, signal processing, sensors, systems modeling and control, industrial engineering, production and management. This part of proceedings includes 81 papers contributed by many researchers in relevant topic areas covered at ICAR2011 from various countries such as France, Japan, USA, Korea and China etc. Many papers introduced their advanced research work recently; some of them gave a new solution to problems in the field, with powerful evidence and detail demonstration. Others stated the application of their designed and realized systems. The session topic of this proceeding is intelligent control and robotics and automation, which includes papers about Distributed Control Systems, Intelligent Fault Detection and Identification, Machine Learning in Control, Neural Networks based Control Systems, Fuzzy Control, Genetic Algorithms, Robot Design, Human-robots Interfaces, Network Robotics, and Autonomous Systems, Industrial Networks and Automation, Modeling, Simulation and Architectures, Vision, Recognition and Reconstruction, Virtual Reality, Image Processing, and so on. All of papers here involved the authors’ numerous time and energy, will be proved valuable in their research field. Sincere thanks to the committee and all the authors, moreover anonymous reviewers from many fields and organizations. That is a power for all of us to go on research work for the world.

Innovations in Food Packaging A well-planned marketing orientation strategy that keeps customers informed is the first step to building a long-term relationship with customers and providing them with appropriate incentives. The difficulty with providing a winning strategy in a highly competitive market, however, stems from responding to the specific needs of the customers. Customer Satisfaction and Sustainability Initiatives in the Fourth Industrial Revolution is an essential reference source that links together some of the most recent and relevant topics in the business of modern economy—customer satisfaction, satisfaction, and sustainability—and analyzes their synergies. Featuring research on topics such as e-business, global business, and sustainable innovation, this book is ideally designed for business consultants, managers, customer service representatives, entrepreneurs, academicians, researchers, and students seeking coverage on directing sustainable companies.

Closing the Gap Between Practice and Research in Industrial Engineering Sustainable Operations and Supply Chain Management addresses the most relevant topics of operations and supply chain management from the perspective of sustainability. The main focus is to provide a step by step guide for managerial decisions made along the product life-cycle, following a path made up of the following steps: product design, sourcing, manufacturing, packaging and physical distribution, reverses logistics and recovery.

Sustainable Graphic Design This volume includes papers presented at the 4th International Conference on Sustainable Design and Manufacturing (SDM-17) held in Bologna, Italy, in April 2017. The conference covered a wide range of topics from cutting-edge sustainable product design and service innovation, sustainable processes and technologies for the manufacturing of sustainable products, sustainable manufacturing systems and enterprises, decision support for sustainability, and the study of the societal impact of sustainability including research for circular economy. Application areas are wide and varied, and the book provides an excellent overview of the latest research and development in the area of Sustainable Design and Manufacturing.

Advances in Automation and Robotics, Vol.1 This book is a first step towards understanding the complexity of corporate environmental strategy while explaining the relationships between the numerous dimensions of the concept. When we think of corporate environmental strategy, we usually have in mind a dull and stereotypical statement issued by the CEO, addressing aspects such as pollution reduction, stakeholder dialogue, and unfailing care for the environment. However, genuine environmental protection relies on proactive policies, managerial commitment, cleaner technologies, and advanced management procedures. The author identifies a series of environmental strategy dimensions, some of which have been thoroughly researched in the literature, whereas others have only emerged in recent years. The main dimensions presented in this book include corporate environmental performance; environmental accounting and disclosure; environmental management
Read Book Sustainable Packaging Design A Holistic Methodology For the team of authors proposed the model packaging. According to them, modern food packaging should be characterized by health (safety), simplicity (reduction, convenience), identity (belonging), aesthetics (design), and meaning (sustainability).

Obtained data indicated the following order of priority of consumers' needs: ensuring safety, meeting legal regulations, ... to lifestyle, improving consumers' life quality through added value, and protection of the environment. Furthermore, the authors used direct observations, field search and her own experience, gained over 20 years by participating in many patent applications and other instruments protecting future innovations. Answering the questions, it was found that: the 3% threshold will not be met in the larger part of the EU, the number of patent applications and granted patents keep growing along with digitalization, and the possibility of a relationship between these factors and trends exists but is not conclusive or dramatically strong. The research challenge, taken by Radka MacGregor Pelikánová, requires an appreciation that, as she notes, "one of the limitations of the study was caused by the intangible, ephemeral and hardly predictable nature of innovations, and the impossibility to collect and mathematically process all the involved phenomena." Furthermore, written by the authors, the research is the first step towards a deeper and more consistent analysis of the role of innovation and its impact on the economic development of nations. Since innovative entrepreneurship has begun to be considered a key factor in modern economic development, finding a prominent place at the core of the European Union’s development strategy. The authors aim to analyse the role of innovative entrepreneurship in the economic development of EU member states by testing a model that captures new or young innovative firms as manifestations of innovative entrepreneurship along with determinants of economic growth trends. The key findings of the paper show that innovative entrepreneurs are more often present in countries with higher development levels and higher incomes, being motivated by the improvement opportunity they see in becoming entrepreneurs. However, a higher degree of entrepreneurship, especially in the creation of new firms, does not substantially contribute to accelerated economic development. This is explained by the variation in the motivation (necessity or improvement-oriented) of entrepreneurs across EU countries. In developed countries, entrepreneurs are most likely to be of Schumpeterian type, while in developing countries most of them are shopkeepers.

The paper has significant practical implications for decision and policy-making authorities in terms of the possible directions of innovative entrepreneurship policy development, including friendlier and more efficient policies aimed at the creation of new firms and the development of SME-supporting tools. Edward Stawasz, whose paper is based on the results of conducted research, carried out an analysis and evaluation of the importance of selected determinants of competitiveness of small innovative enterprises operating in international markets and using business advice services. The first part of this article is a comprehensive literature review concerning the identification of determinants of competitiveness of small enterprises. The second part of the article presents an analysis of the survey conducted among clients of shopping malls in the Małopolska region of Poland. Analysis of the seasonality in tourism employment and its impact on students' tourism employment aspirations. As a research method, a direct questionnaire was used and the obtained data were analyzed statistically. According to one of the conclusions, more investigations from the perspective of tourism and hospitality students of higher educational institutions located in the northern part of Poland (Southern Baltic Sea Region). The main point of the authors' interest was the students' attitudes towards entrepreneurship and the importance of business advice. Therefore, the first main theoretical implication is the emphasis on the importance of socioemotional wealth as a strategic resource. The second main conclusion is the recommendation that socioemotional wealth is a relevant strategic factor that contributes to a firm's competitive advantage.

In this paper, we investigate the characteristics of motives for using, as well as the areas and effects of using, business advice. Business advice can be considered an effective factor in improving the competitiveness of enterprises already characterized by high competitiveness, which means that a high level of competitiveness favors the effect of business advice. Furthermore, the main conclusion reached is that there is a positive relationship between business advice and enterprises' capacity to absorb business knowledge. Therefore, improving the competitiveness of enterprises requires using business advice and improving the business knowledge absorptive capacity. The focus of the next article, written by Kenneth Chukuwujoke Agbim, is the conceptual considerations regarding social networking and family businesses. The paper presents a review of the contribution of social networking to the financial and non-financial performance of family businesses. Based on an analysis of 55 peer-reviewed, published journal articles, the author identified the most frequently used social networking platforms, the measures of financial performance, the measures and proxies of non-financial performance, and the differences between the financial and non-financial performance. The study proposes that family business performance can be assessed non-financial measures in addition to financial measures. The results show that socioemotional wealth is a relevant strategic factor that contributes to a firm's competitive advantage.

The main part of the article, written by Zuzanna Szymanowska and Katarzyna Skrzeszewska, is an in-depth analysis of the interaction between socioemotional wealth and entrepreneurship. The authors propose a 4-stage procedure for assessing the level of socioemotional wealth in family businesses. The main point of the authors' interest was the students' attitudes towards entrepreneurship and the importance of business advice. Therefore, the first main theoretical implication is the emphasis on the importance of socioemotional wealth as a strategic resource. The second main conclusion is the recommendation that socioemotional wealth is a relevant strategic factor that contributes to a firm's competitive advantage. The main point of the authors' interest was the students' attitudes towards entrepreneurship and the importance of business advice. Therefore, the main theoretical implication is the emphasis on the importance of socioemotional wealth as a strategic resource. The second main conclusion is the recommendation that socioemotional wealth is a relevant strategic factor that contributes to a firm's competitive advantage.
intelligence. These conclusions have a managerial dimension because they might be valuable premises for developing packaging and introducing innovative solutions in this area. The paper confirms that both the design of food packaging systems and the production of such kinds of packaging should be developed after giving due consideration not only to the technical requirements but also to the socio-economic and the environmental ones. As the editors of this issue, we would like to thank all the authors for their contribution, and for sharing their own theoretical considerations and the results of empirical research. We are convinced that the presented studies constitute a valuable contribution to management sciences in the area of effective organizational management in a turbulent environment. We would also like to thank the reviewers for their efforts in reviewing the articles for this issue, as well as their valuable comments and suggestions that have influenced its final shape. We hope that the articles presented in this issue will interest readers, scientists and researchers from around the world, in addition to inspiring them to conduct further research on the topics discussed.

Green Supply Chain Management A comprehensive review of the many new developments in the growing food processing and packaging field. Revised and updated for the first time in a decade, this book discusses packaging implications for recent nonthermal processing technologies and mild food preservation such as high pressure processing, irradiation, pulsed electric fields, microwave sterilization, and other hurdle technologies. It reviews typical nonthermal processes, the characteristics of food products after nonthermal treatments, and packaging parameters to preserve the quality and enhance the safety of the products. In addition, the critical role played by packaging materials during the development of a new nonthermal processed product, and how the package is used to make the product attractive to consumers, is discussed. Packaging for Nonthermal Processing of Food, Second Edition provides up-to-date assessments of consumer attitudes to nonthermal processes and novel food products (both in the U.S. and Europe). It offers a brand new chapter covering smart packaging, including thermal, microbial, chemical, and light sensing biosensors, radio frequency identification systems, and self-heating and cooling packaging. There is also a new chapter providing an overview of packaging laws and regulations in the United States and Europe. Covers the packaging types required for all major nonthermal technologies, including high pressure processing, pulsed electric field, irradiation, ohmic heating, and others Features a brand new chapter on smart packaging, including biosensors (thermal-, microbial-, chemical- and light-sensing), radio frequency identification systems, and self-heating and cooling packaging. Additional chapters look at the current regulatory scene in the U.S. and Europe, as well as consumer attitudes to these novel technologies Editors and contributors bring together a valuable mix of industry and research experience Packaging for Nonthermal Processing of Food, Second Edition offers many benefits to the food industry by providing practical information on the relationship between new processes and packaging materials, to academia as a source of fundamental knowledge about packaging science, and to regulatory agencies as an avenue for acquiring a deeper understanding of the packaging requirements for new processes.

Plastics and Sustainability Grey is the New Green This is a book on creating packaging prototypes that reflect sustainable and ecologically sound principles. It challenges the next generation of graphic designers to re-envision packaging design as a less environmentally destructive practice than it presently is, and examines an array of techniques and methodologies for creating innovative and sustainable packaging designs, from first concept to final production. The book is organized into two distinct sections embracing first the theory, including many case studies, and then the practice of eco-friendly packaging design. In the first part of the book, after introducing the student to the background of packaging design and its purpose, the author focuses on issues of sustainability. Through a series of case studies and interviews he looks at some of the companies that are leading the way in sustainable packaging. The second part of the book provides practical information on creating eco-friendly packaging and follows various projects through, step by step.

Environmental Footprints of Packaging FOOD and interdisciplinary research are the central focus of the 1st International Conference on Food Packaging Food Studies: Experiencing Food, Designing Dialogues, reflecting upon approaches evidencing how interdisciplinarity is not limited to the design of objects or services, but seeks awareness towards new lifestyles and innovative ways of dealing with food. This book encompasses a wide range of perspectives on the state of the art and research in the fields of Food and Design, making a significant contribution to the respective topics. Accordingly, it covers a broad variety of topics from Designing for Food, educating People on Food, Experiencing Food and other Food for Thought.

The Importance of New Technologies and Entrepreneurship in Business Development: In The Context of Economic Diversity in Developing Countries Probiotic Beverages is an essential reference guide to traditional, emerging and unique probiotic beverage products throughout different regions of the world. The book includes in-depth knowledge by local authors on indigenous and commercially produced probiotic beverages and related products. Examining current advancements in probiotic beverages and consumer health relationships, with a focus on large-scale beverage technology, sections cover starter cultures, regulatory challenges, genetic engineering, quality and safety. From practical issues of developing probiotic beverages, to the marketing of these drinks to the consumer, the full product lifecycle of a probiotic beverage is discussed. Describes probiotic beverages of different geographical locations, market status and scope Discusses the potential of probiotic beverages in preventing diseases Covers controversial regulatory matters (labeling claims, GMO-free) and sustainability Includes dairy, nondairy, cereal and fruit beverages

Food Industry Wastes This book fills a deep need in the packaging industry—a methodical guide to managing packaging that also discusses how packaging, considered in a total context, benefits all phases of a business and its customers. Starting from the premise that packaging is implicated in a network of material, social, economic and psychological factors, the book offers a comprehensive strategy highlighting packaging's value-adding roles in creating successful products and enhancing the experience of customers—B2B as well as consumers. But the book's practical applications are deeper. By illuminating the multiple relationships of packaging to organizations and cultural trends and linking them to one another and to business drivers, the book offers a useful new way to think about packaging, one that includes and goes beyond cost analysis to demonstrate how packaging is a corporate asset needed to innovate and increase profits. Methods in the book are shown to apply to a wide range of choices managers must make. The book covers all the standard operating procedures of packaging development, which, along with numerous flow charts, formulas and graphics, are designed to improve operations, planning, and sale

Creating Value Through Packaging This book presents the proceedings of the XXII International Conference on Industrial Engineering and Operations Management, International IEIE Conference 2016, and International AIM Conference 2016. This joint conference is a result of an agreement between ADINOR (Asociación para el Desarrollo de la Ingeniería de Organización), ABEPRO (Asociación Brasileira de Engenharia de Produção), AIM (European Academy for Industrial Management) and the IIE (Institute of Industrial Engineers), and took place at TECNUN-School of Engineering (San Sebastián, Spain) from July 13th to 15th, 2016. The book includes the latest research advances and cutting-edge analyses of real case studies in Industrial Engineering and Operations Management from diverse international contexts, while also identifying common business applications for the latest findings and innovations in operations management and the decisions sciences.

Ethics, Social Responsibility and Sustainability in Marketing 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 IEIE Conference 2014 hosted by ADINOR, 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.

Experiencing Food, Designing Dialogues A sustainable brand should integrate environmental, social, economic and issues into its business operations. Sustainable Branding considers how broader perspectives on sustainability and corporate social responsibility can be applied to the practicalities of brand management. By addressing a range of perspectives and their application to branding, the authors go beyond sustainable branding to question the role brands play in a wider sustainable society. Structured around three core parts – People, Planet and Prosperity – contributions from experts in the field consider the human dimensions of environmental change, identity and reputation, technology and innovation, waste management, public and brand engagement, environmental ecosystems and the circular economy. Combining theoretical insight and empirical research with practical application, each chapter includes real-life international cases and reflective questions to allow
Sustainable Operations and Supply Chain Management Supply chain management has long been a feature of industry and commerce but, with increasing demands from consumers, producers are spending more time and money investing in ways to make supply chains more sustainable. This exemplary Handbook provides readers with a comprehensive overview of current research on sustainable supply chain management.

Packaging for Nonthermal Processing of Food The primary mission of the third edition of Handbook of Food Engineering is to provide the information needed for efficient design and development of processes used in the manufacturing of food products, along with supplying the traditional background on these processes. The new edition focuses on the thermophysical properties of food and the rate constants of change in food components during processing. It highlights the use of these properties and constants in process design. In addition to chapters on the properties of food and food ingredients, the book has a new chapter on nano-scale science in food processing. An additional chapter focuses on basic concepts of mass transfer in foods.

Enhancing Synergies in a Collaborative Environment Sustainable Supply Chains: Planning, Design, and Control through Interdisciplinary Methodologies provides integrated and practicable solutions that aid planners and entrepreneurs in the design and optimization of food production-distribution systems and operations and drives change toward sustainable food ecosystems. With synthesized coverage of the academic literature, this book integrates the quantitative models and tools that address each step of food supply chain operations to provide readers with easy access to support-decision quantitative and practicable methods. Broken into three parts, the book begins with an introduction and problem statement. The second part presents and tools as an integrated framework for system and operations design. The book concludes with the presentation of case studies and applications focused on specific food chains. Sustainable Supply Chains: Planning, Design, and Control through Interdisciplinary Methodologies will be an indispensable resource for food scientists, practitioners and graduate students studying food systems and other related disciplines. Contains quantitative models and tools that address the interconnected areas of the sustainable food chain Synthesizes academic literature related to sustainable supply chains Deals with interdisciplinary fields of research (Industrial Systems Engineering, Food Science, Packaging Science, Decision Science, Logistics and Facility Management, Supply Chain Management, Agriculture and Land-use Planning) that dominate sustainable food supply chain systems and operations Includes case studies and applications

Sustainable Food Processing The graphic artist’s guide to sustainable design Graphic design is frequently thought of as a purely decorative effort. Yet these efforts can be responsible for shocking impacts on natural resources just to produce a barely-glanced-at catalog or mail piece. Sustainable Graphic Design: Tools, Systems, and Strategies for Innovative Print Design helps designers view graphic design as a holistic process. By exploring eco-conscious materials and production techniques, it shows designers how to create more sustainable designs. Sustainable Graphic Design opens your eyes to the bigger picture of design seen from the viewpoints of the audience, the creative vendor, their suppliers, and society as a whole. Chapters are written by a wide range of sustainable design pioneers and practitioners—including graphic designers, creative managers, marketing consultants, environmentalists, researchers, and psychologists—giving you critical information on materials and processes. Case studies illustrate and tie concepts together. Sustainability isn’t a fad or a movement; it’s a long-term paradigm shift. With this forward-looking toolkit, you’ll be able to infuse your work with sustainability thinking, empowering you to play your role in achieving a future where design and sustainability are natural partners. Contributors Paul Andre Paul J. Beckmann Sharell Benson Arlene Birt Robert Calif Don Carli Jeremy Faludi Terry Gips Fred Haberman Dan Halsey Jessica Jones Curt McNamara John Moe Jacqueyln Ottman Holly Robbins Pamela Smith Dion Zuev Biomimicy Guild Carbonless Promise Chlorine Free Products Association Environmental Paper Network Eureka Recycling Great Printer Environmental Initiative Package Design Magazine Promotional Product Solutions Sustainable Green Printing Partnership Sustainable Packaging Coalition Recycling Great Printer Environmental Initiative Package Design Magazine Promotional Product Solutions Sustainable Green Printing Partnership Sustainable Packaging Coalition

Corporate Environmental Strategy This book adds the rising concept of 21st century societal marketing which entails that marketers should fulfill the needs of target groups in ways that enhance the well-being of a society as a whole. In the past, social responsibility and corporate ethics may not have been the key elements of corporate and business strategy. However, in the last decade the picture has changed dramatically. Consumers are more concerned about ethical issues and the effects of business activities on the environment and society. The impact and importance of ethical consumerism is escalating. The consumers are more attentive and expect companies to promote their ethical credentials in order to make their products more acceptable to them. This book also reveals how companies should realize that corporate social responsibility (CSR) is not an illustration of corporate altruism but a source of opportunity, and competitive advantage. Finding and following social initiatives as a part of the key business model is proved to be one of the competitive strengths in many instances. This book covers different issues related to ethics, social responsibility and sustainability in marketing and presents different cases and applications from different countries. Together with the best practices, each case and research is expected to shed light on how to improve the role of marketing in helping to the development and well-being of the society.

Handbook of Research on the Applications of International Transportation and Logistics for World Trade This book introduces the students, researchers and practitioners into the subject and enabling technologies and applications pertaining to technology, entrepreneurship and business development through research articles, case studies etc. It is primarily intended for academic purposes for learners of computer Science, management, accounting and information systems disciplines, economics, entrepreneurship. Publishing chapters in the book is new innovative idea to spread the book in the Middle East and Arab countries and make the book achieve more sales. As many students in all levels, graduates and undergraduates in addition to research, professionals are expected to get sufficient resources because of the language concern.

Sustainable Manufacturing and Design How to take the lead with sustainable packaging desigNSolutions With initiatives like the Wal-Mart Scorecard in the U.S. and the EU’s Packaging Directive, delivering sustainable packaging is now integral part of today's global competitive market. Written by experts from a wide variety of fields, here is a comprehensive, single source of actionable information that enables everyone involved in the design and development process to make smart, informed decisions, opening new possibilities for creating truly innovative solutions: Wendy Jedlicka, CPP (Roseville, MN) is President of Jedlicka Design Ltd. and a member of the faculty at Minneapolis College of Art and Design's ground-breaking Sustainable Design Certificate Program. ACertified Packaging Professional, she serves as Upper Midwest Chapter Chair (o2Hum.org), as well as U.S. co-coordinator for the2 Global Green Design Network (o2.org), and contributes frequently to Packaging Design magazine's "Sustainable Update" feature column.

Customer Satisfaction and Sustainability Initiatives in the Fourth Industrial Revolution The first book of its kind, the LCA Handbook will become an invaluable resource for environmentally progressive manufacturers and suppliers, product and process designers, executives and managers, and government officials who want to learn about this essential component of environmental sustainability.

Coatings This new edition of Innovations in Food Packaging Ensures that readers have the most current information on packaging coatings, including active packaging, intelligent packaging, edible/biodegradable packaging, nanocomposites and other options for package design. Today’s packaging not only contains and protects food, but where possible and appropriate, it can assist in inventory control, consumer education, increased market availability and shelf life, and even in ensuring the safety of the food product. As nanotechnology and other technologies have developed, new and important options for maximizing the role of packaging have emerged. This book specifically examines the whole range of modern packaging options. It covers edible packaging based on carbohydrates, proteins, and lipids, antioxidative and antimicrobial packaging, and chemistry issues of food and food packaging, such as plasticization, and polymer morphology. Professionals involved in food safety and shelf life, as well as researchers and students of food science, will find great value in this complete and updated overview. New to this edition: Over 60% updated content — including nine completely new chapters — with the latest developments in technology, processes and materials. Now includes bioplastics, biopolymers, nanoparticles, and eco-design of packaging.

Designing Sustainable Packaging Sustainable Manufacturing and Design draws together research and practices from a wide range of disciplines to help engineers design more environmentally sustainable products. Sustainable manufacturing
requires that the entire manufacturing enterprise adopts sustainability goals at a system-level in decision-making, hence the scope of this book covers a wide range of viewpoints in response. Advice on recyclability, zero landfill design, sustainable quality systems, and product take-back issues make this a highly usable guide to the challenges facing engineering designers today. Contributions from around the globe are included, helping to form an international view of an issue that requires a global response. Addresses methods to reduce energy and material waste through manufacturing design Helps to troubleshoot manufacturability problems that can arise in sustainable design Includes coverage of the legislative, cultural and social impacts of sustainable manufacturing, promoting a holistic view of the subject

Engineering Systems and Networks This edited collection presents state-of-the-art reviews of the latest developments in multisensory packaging design. Bringing together leading researchers and practitioners working in the field, the contributions consider how our growing understanding of the human senses, as well as new technologies, will transform the way in which we design, interact with, and experience food and beverage, home and personal care, and fast-moving consumer products packaging. Spanning all of the senses from colour meaning, imagery and font, touch and sonic packaging, a new framework for multisensory packaging analysis is outlined. Including a number of case studies and examples, this book provides both practical application and theoretical discussion to appeal to students, researchers, and practitioners alike.

Towards Success in a Competitive Market: The Importance of Entrepreneurship and Innovation This book presents recent developments in the coating processes, sub processes and emphasizes on processes with the potential to improve performance quality and reproducibility. The book demonstrates how application methods, environmental factors, and chemical interactions affect each surface coating's performance. In addition, it provides analysis of latest polymers, carbon resins, high-temperature materials used for coatings and describes the development, chemical and physical properties, synthesis, polymerization, commercial uses and characteristics for each raw material and coating. Characterization techniques to solve the coating problems are also presented, as well as optimization studies to identify the critical coating parameters to ensure a robust process.