

1 Introducing Logistics John Wiley Sons

If you ally infatuation such a referred **1 introducing logistics john wiley sons** book that will allow you worth, acquire the extremely best seller from us currently from several preferred authors. If you desire to witty books, lots of novels, tale, jokes, and more fictions collections are then launched, from best seller to one of the most current released.

You may not be perplexed to enjoy every books collections 1 introducing logistics john wiley sons that we will unconditionally offer. It is not more or less the costs. Its more or less what you habit currently. This 1 introducing logistics john wiley sons, as one of the most committed sellers here will categorically be in the midst of the best options to review.

Predictive Analytics and Data Mining - Vijay Kotu 2014-11-27

Put Predictive Analytics into Action Learn the basics of Predictive Analysis and Data Mining through an easy to understand conceptual framework and immediately practice the concepts learned using the open source RapidMiner tool. Whether you are brand new to Data Mining or working on your tenth project, this book will show you how to analyze data, uncover hidden patterns and relationships to aid important decisions and predictions. Data Mining has become an essential tool for any enterprise that collects, stores and processes data as part of its operations. This book is ideal for business users, data analysts, business analysts, business intelligence and data warehousing professionals and for anyone who wants to learn Data Mining. You'll be able to: 1. Gain the necessary knowledge of different data mining techniques, so that you can select the right technique for a given data problem and create a general purpose analytics process. 2. Get up and running fast with more than two dozen commonly used powerful algorithms for predictive analytics using practical use cases. 3. Implement a simple step-by-step process for predicting an outcome or discovering hidden relationships from the data using RapidMiner, an open source GUI based data mining tool Predictive analytics and Data Mining techniques covered: Exploratory Data Analysis, Visualization, Decision trees, Rule induction, k-Nearest Neighbors, Naïve Bayesian, Artificial Neural Networks, Support Vector machines, Ensemble models, Bagging, Boosting, Random Forests, Linear regression, Logistic regression, Association analysis using Apriori and FP Growth, K-Means clustering, Density based clustering, Self Organizing Maps, Text Mining, Time series forecasting, Anomaly detection and Feature selection. Implementation files can be downloaded from the book companion site at www.LearnPredictiveAnalytics.com Demystifies data mining concepts with easy to understand language Shows how to get up and running fast with 20 commonly used powerful techniques for predictive analysis Explains the process of using open source RapidMiner tools Discusses a simple 5 step process for implementing algorithms that can be used for performing predictive analytics Includes practical use cases and examples

Transport Phenomena in Microfluidic Systems - Pradipta Kumar Panigrahi 2016-02-15

Fully comprehensive introduction to the rapidly emerging area of micro systems technology Transport Phenomena in Micro Systems explores the fundamentals of the new technologies related to Micro-Electro-Mechanical Systems (MEMS). It deals with the behavior, precise control and manipulation of fluids that are geometrically constrained to a small, typically sub-millimeter, scale, such as nl, pl, fl, small size, low energy consumption, effects of the micro domain and heat transfer in the related devices. The author describes in detail and with extensive illustration micro fabrication, channel flow, transport laws, magnetophoresis, micro scale convection and micro sensors and activators, among others. This book spans multidisciplinary fields such as material science and mechanical engineering, engineering, physics, chemistry, microtechnology and biotechnology. Brings together in one collection recent and emerging developments in this fast-growing area of micro systems Covers multidisciplinary fields such as materials science, mechanical engineering, microtechnology and biotechnology, et al Comprehensive coverage of analytical models in microfluidics and MEMS technology Introduces micro fluidics applications include the development of inkjet printheads, micro-propulsion, and micro thermal technologies Presented in a very logical format Supplies readers with problems and solutions

Towards Innovative Freight and Logistics Corinne Blanquart 2016-06-15

Freight transport faces a dual challenge: it must satisfy the demands of globalized trade and meet environmental requirements. In this context, innovation is a crucial topic to enable the transition from the current transportation and logistics system to a sustainable system. This book provides an overview of the latest technological innovations in Europe and worldwide, based on ICT and new vehicle concepts, for all modes and all scales (urban, regional, national or international). The authors consider innovation supply, the process of innovation and innovative business models. Some perspectives and solutions are proposed on the deployment of innovation, specifically concerning the transformation of the organization of the system and the relationships between industry, governmental players, operators and users.

Supply Chain Management Best Practices - David Blanchard 2010-04-26

Learn what it takes to develop and have a "best-in-class" supply chain This new edition shows you how to build supply chains that work by illustrating how leading companies are doing it. Identifying world-class supply chains in more than a dozen different industries and explaining in detail how these companies got to where they are, this essential book reveals the proven strategies, solutions, and performance metrics used by leading companies to design their extended enterprises. Identifies proven strategies, solutions, and performance metrics for supply chain management best practice benchmarks Shows how to manage supply chains in a global marketplace and how to choose third-party providers New edition includes new chapters on green supply chains and lean supply chains, and expanded analysis of emerging technologies Includes coverage of supply chain metrics, planning and forecasting, procurement, manufacturing, transportation, globalization, customer service, collaboration, security, and workforce management Written by the Editorial Director of Penton Media's Supply Chain Group and a Contributing Editor to IndustryWeek magazine It also offers guidance on the latest technology, green supply chains, going lean, how to choose third-party logistics providers, and how to manage the supply chain in a global environment.

Global Logistics and Supply Chain Management - John Mangan 2008-06-10

Written by two highly experienced authors, this new text provides a concise, global approach to logistics and supply chain management. Featuring both a practical element, enabling the reader to 'do' logistics (select carriers, identify routes, structure warehouses, etc.) and a strategic element (understand the role of logistics and supply chain management in the wider business context), the book also uses a good range of international case material to illustrate key concepts and extend learning.

Operations and Supply Chain Management for MBAs - Jack R. Meredith 2019-09-11

The seventh edition of Operations and Supply Chain Management for MBAs is the definitive introduction to the fundamental concepts of supply chain and operations management. Designed specifically to meet the needs of MBA students, this market-leading book offers clear presentation of topics such process planning and design, capacity and location planning, schedule and inventory management, and enterprise resource planning. A strategic, conceptual approach helps readers comprehend the contemporary issues they will soon be facing in industry. This concisely-formatted volume enables instructors to customize their courses for the unique requirements of MBA programs. Each chapter integrates material directly into the text rather than sidebars, highlights, and other pedagogical devices to achieve a smooth, easy-to-read narrative flow. Carefully selected questions prompt discussions that complement the mature, more experienced nature of MBA students, while case studies and supplementary materials illustrate key concepts and practices. Topics such as outsourcing and global sourcing, the role of information technology, and global competitiveness

strategies assist students to understand working and competing in the globalized economy.

The Digital Transformation of Logistics - Johannes Kern 2021-04-06

The digital transformation is in full swing and fundamentally changes how we live, work, and communicate with each other. From retail to finance, many industries see an inflow of new technologies, disruption through innovative platform business models, and employees struggling to cope with the significant shifts occurring. This Fourth Industrial Revolution is predicted to also transform Logistics and Supply Chain Management, with delivery systems becoming automated, smart networks created everywhere, and data being collected and analyzed universally. The Digital Transformation of Logistics: Demystifying Impacts of the Fourth Industrial Revolution provides a holistic overview of this vital subject clouded by buzz, hype, and misinformation. The book is divided into three themed-sections: Technologies such as self-driving cars or virtual reality are not only electrifying science fiction lovers anymore, but are also increasingly presented as cure-all remedies to supply chain challenges. In The Digital Transformation of Logistics: Demystifying Impacts of the Fourth Industrial Revolution, the authors peel back the layers of excitement that have grown around new technologies such as the Internet of Things (IoT), 3D printing, Robotic Process Automation (RPA), Blockchain or Cloud computing, and show use cases that give a glimpse about the fascinating future we can expect. Platforms that allow businesses to centrally acquire and manage their logistics services disrupt an industry that has been relationship-based for centuries. The authors discuss smart contracts, which are one of the most exciting applications of Blockchain, Software as a Service (SaaS) offerings for freight procurement, where numerous data sources can be integrated and decision-making processes automated, and marine terminal operating systems as an integral node for shipments. In The Digital Transformation of Logistics: Demystifying Impacts of the Fourth Industrial Revolution, insights are shared into the cold chain industry where companies respond to increasing quality demands, and how European governments are innovatively responding to challenges of cross-border eCommerce. People are a vital element of the digital transformation and must be on board to drive change. The Digital Transformation of Logistics: Demystifying Impacts of the Fourth Industrial Revolution explains how executives can create sustainable impact and how competencies can be managed in the digital age - especially for sales executives who require urgent upskilling to remain relevant. Best practices are shared for organizational culture change, drawing on studies among senior leaders from the US, Singapore, Thailand, and Australia, and for managing strategic alliances with logistics service providers to offset risks and create cross-functional, cross-company transparency. The Digital Transformation of Logistics: Demystifying Impacts of the Fourth Industrial Revolution provides realistic insights, a ready-to-use knowledge base, and a working vocabulary about current activities and emerging trends of the Logistics industry. Intended readers are supply chain professionals working for manufacturing, trading, and freight forwarding companies as well as students and all interested parties.

Naval Research Logistics - 2001

Experimental Micro/Nanoscale Thermal Transport - Xinwei Wang 2012-06-05

This book covers the new technologies on micro/nanoscale thermal characterization developed in the Micro/Nanoscale Thermal Science Laboratory led by Dr. Xinwei Wang. Five new non-contact and non-destructive technologies are introduced: optical heating and electrical sensing technique, transient electro-thermal technique, transient photo-electro-thermal technique, pulsed laser-assisted thermal relaxation technique, and steady-state electro-Raman-thermal technique. These techniques feature significantly improved ease of implementation, super signal-to-noise ratio, and have the capacity of measuring the thermal conductivity/diffusivity of various one-dimensional structures from dielectric, semiconductive, to metallic materials.

Pollutant Transfer and Transport in the Sea - Gunnar Kullenberg 2018-01-18

This book covers those subject areas considered essential for the transfer and transport of pollutants in the marine environment. This publication will stimulate discussions and interdisciplinary research relevant to pollution problems as well as serve as an educational reference book.

Scaling Analysis in Modeling Transport and Reaction Processes - William B. Krantz 2007-06-04

This book is unique as the first effort to expound on the subject of systematic scaling analysis. Not written

for a specific discipline, the book targets any reader interested in transport phenomena and reaction processes. The book is logically divided into chapters on the use of systematic scaling analysis in fluid dynamics, heat transfer, mass transfer, and reaction processes. An integrating chapter is included that considers more complex problems involving combined transport phenomena. Each chapter includes several problems that are explained in considerable detail. These are followed by several worked examples for which the general outline for the scaling is given. Each chapter also includes many practice problems. This book is based on recognizing the value of systematic scaling analysis as a pedagogical method for teaching transport and reaction processes and as a research tool for developing and solving models and in designing experiments. Thus, the book can serve as both a textbook and a reference book.

Global Logistics and Supply Chain Management - John Mangan 2020-12-07

Global Logistics and Supply Chain Management is a comprehensive, fully up-to-date introduction to the subject. Addressing both practical and strategic perspectives, this revised and updated fourth edition offers readers a balanced and integrated presentation of Logistics and Supply Chain Management (LSCM) concepts, practices, technologies, and applications. Contributions from experts in specific areas of LSCM provide readers with real-world insights on supply chain relationships, transport security, inventory management, supply chain designs, the challenges inherent to globalization and international trade, and more. The text examines how information, materials, products, and services flow across the public and private sectors and around the world. Detailed case studies highlight LSCM practices and strategies in a wide range of contexts, from humanitarian aid and pharmaceutical supply chains to semi-automated distribution centers and port and air cargo logistics. Examples of LSCM in global corporations such as Dell Computer and Jaguar Land Rover highlight the role of new and emerging technologies. This edition features new and expanded discussion of contemporary topics including sustainability, supply chain vulnerability, and reverse logistics, and places greater emphasis on operations management.

City Logistics 1 - Eiichi Taniguchi 2018-05-24

This volume of three books presents recent advances in modelling, planning and evaluating city logistics for sustainable and liveable cities based on the application of ICT (Information and Communication Technology) and ITS (Intelligent Transport Systems). It highlights modelling the behaviour of stakeholders who are involved in city logistics as well as planning and managing policy measures of city logistics including cooperative freight transport systems in public-private partnerships. Case studies of implementing and evaluating city logistics measures in terms of economic, social and environmental benefits from major cities around the world are also given.

Introduction to Logistics Systems Planning and Control - Gianpaolo Ghiani 2004-03-05

Logistic systems constitute one of the cornerstones in the design and control of production systems and the modelling of supply chains. They are key to a number of industries, and courses teaching logistics systems planning and control are becoming more widespread. Introduction to Logistics Systems Planning and Control is the first book to present the quantitative methods necessary for logistics systems management at a level suitable for students of engineering, computer science and management science. It features introductory material on business logistics and covers sales forecasting, inventory management, warehouse design and management, and transport planning and control. Presents a balanced treatment of quantitative methods for logistics systems planning, organization and control. Each topic is illustrated with real examples. Features a number of case studies that show how the methods can be applied to complex logistics problems. Each chapter features an annotated bibliography of key references. Assumes only a basic knowledge of operations research. Supported by a Website featuring exercises and teaching material. Introduction to Logistics Systems Planning and Control provides an accessible self-contained introduction to the subject for researchers, practitioners, and students of logistics and supply chain management, in both academia and industry. The book has been developed from courses taught to engineering, computer science and management science undergraduate and graduate students.

Introduction to Organic Semiconductor Heterojunctions - Dongshang Yan 2010-11-15

It is well known that most important electronic devices use Schottky junctions and heterojunctions. Unfortunately there is not an advanced book introducing heterojunctions systematically. Introduction to Organic Semiconductor Heterojunctions fills the gap. In this book, the authors provide a comprehensive

discussion and systematic introduction on the state-of-the-art technologies as well as application of organic semiconductor heterojunctions. First book to systematically introduce organic heterojunctions Arms readers with theoretical, experimental and applied aspects of organic heterojunctions The Chinese edition of the book is part of the Chinese Academy of Sciences' Distinguished Young Scholar Scientific Book Series Introduction to Organic Semiconductor Heterojunctions is an ideal and valued reference for researchers and graduate students focusing on organic thin film devices like organic light-emitting diodes (OLEDs), organic photovoltaic (OPV) cells, and organic field-effect transistors (OFETs). Instructors can use the book as a supplementary text for a semiconductor physics or organic electronics course, giving students a better feel for the application of organic thin film devices.

Supply Chain Management - Nada R. Sanders 2017-10-19

Supply chain management, rapidly-advancing and growing ever more important in the global business climate, requires an intense understanding of both underlying principles and practical techniques. Including both a broad overview of supply chain management and real-world examples of SCM in companies ranging from small to large, this book provides students with both the foundational material required to understand the subject matter and practical tips that demonstrate how the latest techniques are being applied. Spanning functional boundaries, this well-regarded book is now in its second edition and has quickly become a standard course text at many universities. This newest edition continues to provide a balanced, integrative, and business-oriented viewpoint of the material, and deeply explores how SCM is intertwined with other organizational functions. New material has been added to address the importance of big data analytics in SCM, as well as other technological advances such as 3-D printing, cloud computing, machine learning, driverless vehicles, the Internet of Things, RFID, and others.

Introduction to Particle Technology - Martin J. Rhodes 2013-03-25

Particle technology is a term used to refer to the science and technology related to the handling and processing of particles and powders. The production of particulate materials, with controlled properties tailored to subsequent processing and applications, is of major interest to a wide range of industries, including chemical and process, food, pharmaceuticals, minerals and metals companies and the handling of particles in gas and liquid solutions is a key technological step in chemical engineering. This textbook provides an excellent introduction to particle technology with worked examples and exercises. Based on feedback from students and practitioners worldwide, it has been newly edited and contains new chapters on slurry transport, colloids and fine particles, size enlargement and the health effects of fine powders. Topics covered include: Characterization (Size Analysis) Processing (Granulation, Fluidization) Particle Formation (Granulation, Size Reduction) Storage and Transport (Hopper Design, Pneumatic Conveying, Standpipes, Slurry Flow) Separation (Filtration, Settling, Cyclones) Safety (Fire and Explosion Hazards, Health Hazards) Engineering the Properties of Particulate Systems (Colloids, Respirable Drugs, Slurry Rheology) This book is essential reading for undergraduate students of chemical engineering on particle technology courses. It is also valuable supplementary reading for students in other branches of engineering, applied chemistry, physics, pharmaceuticals, mineral processing and metallurgy. Practitioners in industries in which powders are handled and processed may find it a useful starting point for gaining an understanding of the behavior of particles and powders. Review of the First Edition taken from High Temperatures - High pressures 1999 31 243 - 251 " ..This is a modern textbook that presents clear-cut knowledge. It can be successfully used both for teaching particle technology at universities and for individual study of engineering problems in powder processing."

The LIVING Supply Chain - Robert Handfield 2017-06-02

Creates a managerial compass for entering into the LIVING (Live, Intelligent, Velocity, Interactive, Networked, and Good) era of supply chain management and defines the imperative for creating Velocity and Visibility as the focal point for exploiting new digital, mobile, and cloud-based technologies Written by well-known researchers in the field, this book addresses the changes that have occurred and are still unfolding at various organizations that are involved in building real-time supply chains. The authors draw on their experiences with multiple companies, along with references to the natural evolution of ecosystems throughout to help identify the "new rules of supply chain management." The LIVING principles associated with the rapid digitization and technology changes occurring in the global economy are discussed, along

with the push to become more sustainable and responsive to customer needs. " Handfield and Linton reveal the "secret ingredient" to leveraging the power of a well managed supply chain...will revolutionize the way companies approach supply chain management." Frank Crespo, Vice President, Global Supply Network Division (CPO/Logistics/IoT Analytics), Caterpillar Inc. " The LIVING supply chain is a wake up call to any enterprise that depends on suppliers and contractors. Be fast, be nimble and make supply chain transparency the nucleus of your operations or become endangered." Paul Massih, Vice President, BP PSCM " ...a fascinating journey through the future of supply chain management ... a must read for every supplychain professional." Yossi Sheffi, Professor, MIT Center for Transportation and Logistics " ... a great "living" reading on how to bring supply chains to a powerful living state. The idea of Live-Interactive-Velocity-Intelligent-Networked-Good is the foundation of how supply chains can be agile, adaptive and aligned. ...of value to every supply chain executive and practitioner." Hau Lee, Professor, Stanford University " Successful businesses are those that support the success of their customers. This book captures the essence of our volatile, uncertain world and the opportunities that exist for the commercially astute, organizationally integrated business. More important, it offers insight to the recipe for 21st century operations and the management of complex supply ecosystems." Tim Cummins, CEO, International Association of Commercial and Contract Management " A LIVING supply chain requires a living company. The authors make a great case for how Flex is creating a living company to thrive in the living supply chain." Tom Choi, Harold E. Fear on Eminent Scholar Chair of Purchasing Management, Arizona State University, Executive Director, CAPS Research " To survive we need to have an adaptive supply chain and capability to both optimize and adapt simultaneously. This book begins to describe the ability to shift from functional silos to E2E Frictionless flow with the maturity to make E2E tradeoff decisions as a key enabler for success." Wayne Rothman, Vice President, Enterprise Supply Chain Planning, Johnson & Johnson "A fantastic read and excellent stories from Dr. Handfield and Tom." Joanne E. Wright, Vice President, IBM Supply Chain ROBERT HANDFIELD, PhD, is Bank of America University Distinguished Professor of Supply Chain Management and Director of the Supply Chain Resource Cooperative at North Carolina State University. The author of four books and over 150 journal articles, Dr. Handfield received his PhD in Opera Essentials of Supply Chain Management - Michael H. Hugos 2018-02-22

The bestselling guide to the field, updated with the latest innovations Essentials of Supply Chain Management is the definitive guide to the field, providing both broad coverage and necessary detail from a practical, real-world perspective. From clear explanation of fundamental concepts to insightful discussion of supply chain innovation, this book offers students and professionals a comprehensive introduction with immediately-applicable understanding. The fourth edition has been updated to reflect the current state of the field, with coverage of the latest technologies and new case studies that illustrate critical concepts in action. Organized for easy navigation and ease-of-use, this invaluable guide also serves as a quick reference for managers in the field seeking tips and techniques for maximizing efficiency and turning the supply chain into a source of competitive advantage. The supply chain underpins the entire structure of manufacturing and retailing. Well-run, it can help a company become a global behemoth—or, if poorly-managed, it can sink a company before the product ever sees the light of day. The supply chain involves many moving parts, constantly-changing variables, and a network of other business that may have different priorities and interests—keeping it all running smoothly is a complex, but immensely powerful skill. This book takes you inside the supply chain to show you what you need to know. Understand the fundamental concepts behind supply chain management Learn how supply chains work, and how to measure their performance Explore the ways in which innovation is improving supply chains around the world Examine the supply chain as a source of competitive advantage Whether you're at the front or the back of your supply chain, your business is affected by every other company and event in the chain. Deep understanding and a host of practical skills are required to accurately predict, react to, and manage the ever-changing stream of events that could potentially disrupt the flow. Essentials of Supply Chain Management prepares you to take on the challenge and succeed.

Introduction to Logistics Systems Management - Gianpaolo Ghiani 2013-02-06

Introduction to Logistics Systems Management is the fully revised and enhanced version of the 2004 prize-winning textbook Introduction to Logistics Systems Planning and Control, used in universities around the

world. This textbook offers an introduction to the methodological aspects of logistics systems management and is based on the rich experience of the authors in teaching, research and industrial consulting. This new edition puts more emphasis on the organizational context in which logistics systems operate and also covers several new models and techniques that have been developed over the past decade. Each topic is illustrated by a numerical example so that the reader can check his or her understanding of each concept before moving on to the next one. At the end of each chapter, case studies taken from the scientific literature are presented to illustrate the use of quantitative methods for solving complex logistics decision problems. An exhaustive set of exercises is also featured at the end of each chapter. The book targets an academic as well as a practitioner audience, and is appropriate for advanced undergraduate and graduate courses in logistics and supply chain management, and should also serve as a methodological reference for practitioners in consulting as well as in industry.

A Basic Introduction to Pollutant Fate and Transport - Frank M. Dunnivant 2006-02-17

A uniquely accessible text on environmental modeling designed for both students and industry personnel. Pollutant fate and modeling are becoming increasingly important in both regulatory and scientific areas. However, the complexity of the software and models often act as an inhibitor to the advancement of water quality science. A Basic Introduction to Pollutant Fate and Transport fills the need for a basic instructional tool for students and environmental professionals who lack the rigorous mathematical background necessary to derive the governing fate and transport equations. Taking a refreshingly simple approach to the subject that requires only a basic knowledge of algebra and first-year college chemistry, the book presents and integrates all of the aspects of fate and transport, including chemistry, modeling, risk assessment, and relevant environmental legislation; approaching each topic first conceptually before introducing the math necessary to model it. The first half of the book is dedicated to the chemistry and physics behind the fate and transport models, while the second half teaches and reinforces the logical concepts underlying fate and transport modeling. This better prepares students for support jobs in the environmental arena surrounding chemical industry and Superfund sites. Contributing to the book's ease of use are: An extremely user-friendly software program, Fate, which uses basic models to predict the fate and transport of pollutants in lakes, rivers, groundwater, and atmospheric systems. The use of "canned" models to evaluate the importance of model parameters and sensitivity analysis. A wealth of easy-to-understand examples and problems. A chapter on environmental legislation in the United States and Europe. A set of lab exercises, as well as a downloadable set of teaching aids. A much-needed basic text for contemporary hydrology or environmental chemistry courses and support courses for the environmental industry, this is a valuable desk reference for educators and industry professionals.

Applied Logistic Regression - David W. Hosmer, Jr. 2004-10-28

From the reviews of the First Edition. "An interesting, useful, and well-written book on logistic regression models . . . Hosmer and Lemeshow have used very little mathematics, have presented difficult concepts heuristically and through illustrative examples, and have included references." —Choice "Well written, clearly organized, and comprehensive . . . the authors carefully walk the reader through the estimation of interpretation of coefficients from a wide variety of logistic regression models . . . their careful explication of the quantitative re-expression of coefficients from these various models is excellent." —Contemporary Sociology "An extremely well-written book that will certainly prove an invaluable acquisition to the practicing statistician who finds other literature on analysis of discrete data hard to follow or heavily theoretical." —The Statistician In this revised and updated edition of their popular book, David Hosmer and Stanley Lemeshow continue to provide an amazingly accessible introduction to the logistic regression model while incorporating advances of the last decade, including a variety of software packages for the analysis of data sets. Hosmer and Lemeshow extend the discussion from biostatistics and epidemiology to cutting-edge applications in data mining and machine learning, guiding readers step-by-step through the use of modeling techniques for dichotomous data in diverse fields. Ample new topics and expanded discussions of existing material are accompanied by a wealth of real-world examples—with extensive data sets available over the Internet.

Transport Infrastructure and Systems - Gianluca Dell'Acqua 2017-03-16

Transport Infrastructure Asset management in transport infrastructure, financial viability of transport

engineering projects/ Life cycle Cost Analysis, Life-Cycle Assessment and Sustainability Assessment of transport infrastructure/ Infrastructures financing and pricing with equity appraisal, operation optimization and energy management/ Low-Volume roads: planning, maintenance, operations, environmental and social issues/ Public-Private Partnership (PPP) experience in transport infrastructure in different countries and economic conditions/ Airport Pavement Management Systems, runway design and maintenance/ Port maintenance and development issues, technology relating to cargo handling, landside access, cruise operations/ Infrastructure Building Information Modelling (I-BIM) / Pavement design and innovative bituminous materials/ Recycling and re-use in road pavements, environmentally sustainable technologies/ Stone pavements, ancient roads and historic railways/ Cementitious stabilization of materials used in the rehabilitation of transportation infrastructure. Transport Systems Sustainable transport and the environment protection including green vehicles/ Urban transport, land use development, spatial and transport planning/ Bicycling, bike, bike-sharing systems, cycling mobility/ Human factor in transport systems/ Intelligent Mobility: emerging technologies to enable the smarter movement of people and goods/Airport landside: access roads, parking facilities, terminal facilities, aircraft apron and the adjacent taxiway/ Transportation policy, planning and design, modelling and decision making/ Transport economics, finance and pricing issues, optimization problems, equity appraisal/ Road safety impact assessments, road safety audits, the management of road network safety and safety inspections/ Tunnels and underground structures: preventing incidents-accidents mitigating their effects for both people and goods/ Traffic flow characteristics, traffic control devices, work zone traffic control, highway capacity and quality of service/ Track-vehicle interactions in railway systems, capacity analysis of railway networks/ Risk assessment and safety in air and railway transport, reliability aspects/ Maritime transport and inland waterways transport research/ Intermodal freight transport: terminals and logistics.

Introduction to Distribution Logistics - Paolo Brandimarte 2007-07-27

unique introduction to distribution logistics that focuses on both quantitative modeling and practical business issues. Introduction to Distribution Logistics presents a complete and balanced treatment of distribution logistics by covering both applications and the required theoretical background, therefore extending its reach to practitioners and students in a range of disciplines such as management, engineering, mathematics, and statistics. The authors emphasize the variety and complexity of issues and sub-problems surrounding distribution logistics as well as the limitations and scope of applicability of the proposed quantitative tools. Throughout the book, readers are provided with the quantitative approaches needed to handle real-life management problems, and areas of study include: Supply chain management. Network design and transportation. Demand forecasting. Inventory control in single- and multi-echelon systems. Incentives in the supply chain. Vehicle routing. Complete with extensive appendices on probability and statistics as well as mathematical programming, Introduction to Distribution Logistics is a valuable text for distribution logistics courses at both the advanced undergraduate and beginning graduate levels in a variety of disciplines, and prior knowledge of production planning is not assumed. The book also serves as a useful reference for practitioners in the fields of applied mathematics and statistics, manufacturing engineering, business management, and operations research. The book's related Web site includes additional sections and numerical illustrations.

Modeling Transport Juan de Dios Ortúzar 2011-05-03

Already the market leader in the field, Modelling Transport has become still more indispensable following a thorough and detailed update. Enhancements include two entirely new chapters on modelling for private sector projects and on activity-based modelling; a new section on dynamic assignment and micro-simulation; and sizeable updates to sections on disaggregate modelling and stated preference design and analysis. It also tackles topical issues such as valuation of externalities and the role of GPS in travel time surveys. Providing unrivalled depth and breadth of coverage, each topic is approached as a modelling exercise with discussion of the roles of theory, data, model specification, estimation, validation and application. The authors present the state of the art and its practical application in a pedagogic manner, easily understandable to both students and practitioners. Follows on from the highly successful third edition universally acknowledged as the leading text on transport modelling techniques and applications. Includes two new chapters on modelling for private sector projects and activity based modeling, and

numerous updates to existing chapters Incorporates treatment of recent issues and concerns like risk analysis and the dynamic interaction between land use and transport Provides comprehensive and rigorous information and guidance, enabling readers to make practical use of every available technique Relates the topics to new external factors and technologies such as global warming, valuation of externalities and global positioning systems (GPS).

Empowering Science and Mathematics for Global Competitiveness - Yuli Rahmawati 2019-06-07

This conference proceedings focuses on enabling science and mathematics practitioners and citizens to respond to the pressing challenges of global competitiveness and sustainable development by transforming research and teaching of science and mathematics. The proceedings consist of 82 papers presented at the Science and Mathematics International Conference (SMIC) 2018, organised by the Faculty of Mathematics and Natural Sciences, Universitas Negeri Jakarta, Indonesia. The proceedings are organised in four parts: Science, Science Education, Mathematics, and Mathematics Education. The papers contribute to our understanding of important contemporary issues in science, especially nanotechnology, materials and environmental science; science education, in particular, environmental sustainability, STEM and STEAM education, 21st century skills, technology education, and green chemistry; and mathematics and its application in statistics, computer science, and mathematics education.

Introduction to Logistics Systems Planning and Control - Paolo Ghiani 2004-01-26

Publisher Description

Managing Construction Logistics - Gary Sullivan 2011-02-25

Every major industry except construction uses logistics to improve its bottom line... Poor logistics is costing the construction industry at least £3 billion a year according to a report - 'Improving Construction Logistics' - published by the Strategic Forum for Construction. Additional costs arise as a result of operatives waiting for materials, and skilled craftsmen being used for unskilled jobs. Inadequate management of logistics also has an adverse effect on quality, causes delays to projects, and adds to the health and safety risks on site. This practical book highlights the benefits of good logistics as well as the use of consolidation centres on projects. It shows how reduction in transport movements, less money tied up in stock, less waste, and the more efficient use of skilled craftsmen will reduce the cost of projects, reduce construction time, improve quality, reduce risks to health and safety, improve environmental performance and generally improve the image of the industry. The authors offer practical ways of achieving these benefits through integrated project teams and supply chains and the increased adoption of information technology including electronic communications, bar coding, and electronic tagging for tracing products. They also show how specific roles for each part of the industry can help to improve logistics. • Practical, clear and accessible • First book to address logistics in construction • Written by the industry-recognized logistics experts • Tackles issues of key concern: efficient use of labour; sustainability; waste and supply chain management

Recent Advances in Quantitative Methods in Cancer and Human Health Risk Assessment - Lutz Edler 2005-05-27

Human health risk assessment involves the measuring of risk of exposure to disease, with a view to improving disease prevention. Mathematical, biological, statistical, and computational methods play a key role in exposure assessment, hazard assessment and identification, and dose-response modelling. Recent Advances in Quantitative Methods in Cancer and Human Health Risk Assessment is a comprehensive text that accounts for the wealth of new biological data as well as new biological, toxicological, and medical approaches adopted in risk assessment. It provides an authoritative compendium of state-of-the-art methods proposed and used, featuring contributions from eminent authors with varied experience from academia, government, and industry. Provides a comprehensive summary of currently available quantitative methods for risk assessment of both cancer and non-cancer problems. Describes the applications and the limitations of current mathematical modelling and statistical analysis methods (classical and Bayesian). Includes an extensive introduction and discussion to each chapter. Features detailed studies of risk assessments using biologically-based modelling approaches. Discusses the varying computational aspects of the methods proposed. Provides a global perspective on human health risk assessment by featuring case studies from a wide range of countries. Features an extensive bibliography

with links to relevant background information within each chapter. Recent Advances in Quantitative Methods in Cancer and Human Health Risk Assessment will appeal to researchers and practitioners in public health & epidemiology, and postgraduate students alike. It will also be of interest to professionals working in risk assessment agencies.

Introduction to Tourism Transport - Sven Gross 2014-08-26

Transport is an inherent part of tourism; whether as a functional means of transportation, such as between origin and destination or within the destination; or as a key element of the holiday experience itself, as in cruising or traveling along scenic or historic routes. This book provides the necessary background information to gain a comprehensive understanding of transportation markets, with each of the three modes of transportation - air, ground and marine - explored in detail. Each section includes definitions, the historical development of the market and international institutional frameworks, with case studies, learning objectives and study questions incorporated to facilitate an active learning process.

Transport Phenomena - Larry A. Glasgow 2010-12-01

Enables readers to apply transport phenomena principles to solve advanced problems in all areas of engineering and science This book helps readers elevate their understanding of, and their ability to apply, transport phenomena by introducing a broad range of advanced topics as well as analytical and numerical solution techniques. Readers gain the ability to solve complex problems generally not addressed in undergraduate-level courses, including nonlinear, multidimensional transport, and transient molecular and convective transport scenarios. Avoiding rote memorization, the author emphasizes a dual approach to learning in which physical understanding and problem-solving capability are developed simultaneously. Moreover, the author builds both readers' interest and knowledge by: Demonstrating that transport phenomena are pervasive, affecting every aspect of life Offering historical perspectives to enhance readers' understanding of current theory and methods Providing numerous examples drawn from a broad range of fields in the physical and life sciences and engineering Contextualizing problems in scenarios so that their rationale and significance are clear This text generally avoids the use of commercial software for problem solutions, helping readers cultivate a deeper understanding of how solutions are developed. References throughout the text promote further study and encourage the student to contemplate additional topics in transport phenomena. Transport Phenomena is written for advanced undergraduates and graduate students in chemical and mechanical engineering. Upon mastering the principles and techniques presented in this text, all readers will be better able to critically evaluate a broad range of physical phenomena, processes, and systems across many disciplines.

Sustainable Operations and Supply Chain Management - Valeria Belvedere 2017-03-20

SUSTAINABLE OPERATIONS AND SUPPLY CHAIN MANAGEMENT SUSTAINABLE OPERATIONS AND SUPPLY CHAIN MANAGEMENT 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, reverse logistics and recovery. Guidance is provided on understanding traditional operations and supply chain management approaches, tools and techniques such as production planning, stock management, quality management and performance measurement, which can be adapted to achieve economic, environmental and social sustainability. Key features: Repositions the main operations and supply chain management decisions developed in the perspective of the Life Cycle Analysis (Cradle-to-Cradle approach) and the Triple Bottom Line approach (economic, environmental and social sustainability) Covers sustainability and future trends, sustainable operations as a competitive factor as well as performance measurement and control Explores five main areas of operations and supply chain management; design for environment, procurement, manufacturing, packaging and distribution and reverse supply chain Provides a case study within each chapter to further the reader's understanding along with numerous examples and real-world problems The book will be valuable for students at undergraduate and graduate levels in management and engineering schools, as well as for practitioners working in operations and supply chain management functions.

Introduction to Monte Carlo Methods for Transport and Diffusion Equations - Bernard Lapeyre 2003

This text is used by for the resolution of partial differential equations, transport equations, the Boltzmann equation and the parabolic equations of diffusion.

Comprehensive Logistics - Timm Gudehus 2012-01-10

Modern logistics comprises operative logistics, analytical logistics and management of logistic networks. Central task of operative logistics is the efficient supply of required goods at the right place within the right time. Tasks of analytical logistics are designing optimal networks and systems, developing strategies for planning, scheduling and operation, and organizing efficient order and performance processes. Logistic management plans, implements and operates logistic networks and schedules orders, stocks and resources. This reference-book offers a unique survey of modern logistics. It contains proven strategies, rules and tools for the solution of a multitude of logistic problems. The analytically derived algorithms and formulas can be used for the computer-based planning of logistic systems and for the dynamic scheduling of orders and resources in supply networks. They enable significant improvements of performance, quality and costs. Their application is demonstrated by several examples from industry, trade and service providers. Apart from corrections and modifications the second edition contains a new chapter on maritime logistics. It demonstrates how the methods of this book can be used to solve complex logistic problems of practical relevance for economy, society and environment. The book is written for professionals, scientists, teachers and graduate students. An extensive index makes it a dictionary of modern logistics.

Logistics and Supply Chain Management ePub eBook - Martin Christopher 2013-07-25

Effective development and management of a supply chain network is an invaluable source of sustainable advantage in today's turbulent global marketplace, where demand is difficult to predict and supply chains need to be more flexible as a result. This updated 4th edition of the bestselling Logistics and Supply Chain Management is a clear-headed guide to all the key topics in an integrated approach to supply chains, including:

- The link between logistics and customer value.
- Logistics and the bottom line measuring costs and performance.
- Creating a responsive supply chain.
- Managing the global pipeline.
- Managing supply chain relationships.
- Managing risk in the supply chain.
- Matching supply and demand.
- Creating a sustainable supply chain.
- Product design in the supply chain.

Performance of the Jet Transport Airplane - Trevor M. Young 2019-10-24

Performance of the Jet Transport Airplane: Analysis Methods, Flight Operations, and Regulations presents a detailed and comprehensive treatment of performance analysis techniques for jet transport airplanes. Uniquely, the book describes key operational and regulatory procedures and constraints that directly impact the performance of commercial airliners. Topics include: rigid body dynamics; aerodynamic fundamentals; atmospheric models (including standard and non-standard atmospheres); height scales and altimetry; distance and speed measurement; lift and drag and associated mathematical models; jet engine performance (including thrust and specific fuel consumption models); takeoff and landing performance (with airfield and operational constraints); takeoff climb and obstacle clearance; level, climbing and descending flight (including accelerated climb/descent); cruise and range (including solutions by numerical integration); payload-range; endurance and holding; maneuvering flight (including turning and pitching maneuvers); total energy concepts; trip fuel planning and estimation (including regulatory fuel reserves); en route operations and limitations (e.g. climb-speed schedules, cruise ceiling, ETOPS); cost considerations (e.g. cost index, energy cost, fuel tankering); weight, balance and trim; flight envelopes and limitations (including stall and buffet onset speeds, V-n diagrams); environmental considerations (viz. noise and emissions); aircraft systems and airplane performance (e.g. cabin pressurization, de-/anti icing, and fuel); and performance-related regulatory requirements of the FAA (Federal Aviation Administration) and EASA (European Aviation Safety Agency). Key features: Describes methods for the analysis of the performance of jet transport airplanes during all phases of flight Presents both analytical (closed form) methods and numerical approaches Describes key FAA and EASA regulations that impact airplane performance Presents equations and examples in both SI (Système International) and USC (United States Customary) units Considers the influence of operational procedures and their impact on airplane performance Performance of the Jet Transport Airplane: Analysis Methods, Flight Operations, and Regulations provides a comprehensive treatment of the performance of modern jet transport airplanes in an operational context. It is a must-have reference for aerospace engineering students, applied researchers conducting performance-

related studies, and flight operations engineers.

Multimodal Transport Systems Slim Hammadi 2013-12-11

The use and management of multimodal transport systems, including car-pooling and goods transportation, have become extremely complex, due to their large size (sometimes several thousand variables), the nature of their dynamic relationships as well as the many constraints to which they are subjected. The managers of these systems must ensure that the system works as efficiently as possible by managing the various causes of malfunction of the transport system (vehicle breakdowns, road obstructions, accidents, etc.). The detection and resolution of conflicts, which are particularly complex and must be dealt with in real time, are currently processed manually by operators. However, the experience and abilities of these operators are no longer sufficient when faced with the complexity of the problems to be solved. It is thus necessary to provide them with an interactive tool to help with the management of disturbances, enabling them to identify the different disturbances, to characterize and prioritize these disturbances, to process them by taking into account their specifics and to evaluate the impact of the decisions in real time. Each chapter of this book can be broken down into an approach for solving a transport problem in 3 stages, i.e. modeling the problem, creating optimization algorithms and validating the solutions. The management of a transport system calls for knowledge of a variety of theories (problem modeling tools, multi-objective problem classification, optimization algorithms, etc.). The different constraints increase its complexity drastically and thus require a model that represents as far as possible all the components of a problem in order to better identify it and propose corresponding solutions. These solutions are then evaluated according to the criteria of the transport providers as well as those of the city transport authorities. This book consists of a state of the art on innovative transport systems as well as the possibility of coordinating with the current public transport system and the authors clearly illustrate this coordination within the framework of an intelligent transport system. Contents 1. Dynamic Car-pooling, Slim Hammadi and Nawel Zangar. 2. Simulation of Urban Transport Systems, Christian Tahon, Thérèse Bonte and Alain Gibaud. 3. Real-time Fleet Management: Typology and Methods, Frédéric Semet and Gilles Goncalves. 4. Solving the Problem of Dynamic Routes by Particle Swarm, Mostefa Redouane Khouahjia, Laetitia Jourdan and El Ghazali Talbi. 5. Optimization of Traffic at a Railway Junction: Scheduling Approaches Based on Timed Petri Nets, Thomas Bourdeaud'huy and Benoît Trouillet. About the Authors Slim Hammadi is Full Professor at the Ecole Centrale de Lille in France, and Director of the LAGIS Team on Optimization of Logistic systems. He is an IEEE Senior Member and specializes in distributed optimization, multi-agent systems, supply chain management and metaheuristics. Mekki Ksouri is Professor and Head of the Systems Analysis, Conception and Control Laboratory at Tunis El Manar University, National Engineering School of Tunis (ENIT) in Tunisia. He is an IEEE Senior Member and specializes in control systems, nonlinear systems, adaptive control and optimization. The multimodal transport network customers need to be oriented during their travels. A multimodal information system (MIS) can provide customers with a travel support tool, allowing them to express their demands and providing them with the appropriate responses in order to improve their travel conditions. This book develops methodologies in order to realize a MIS tool capable of ensuring the availability of permanent multimodal information for customers before and while traveling, considering passengers mobility.

Environmental Transport Processes - Bruce E. Logan 2012-03-20

A unique approach to the challenges of complex environmental systems Environmental Transport Processes, Second Edition provides much-needed guidance on mass transfer principles in environmental engineering. It focuses on working with uncontrolled conditions involving biological and physical systems, offering examples from diverse fields, including mass transport, kinetics, wastewater treatment, and unit processes. This new edition is fully revised and updated, incorporating modern approaches and practice problems at the end of chapters, making the Second Edition more concise, accessible, and easy to use. The book discusses the fundamentals of transport processes occurring in natural environments, with special emphasis on working at the biological-physical interface. It considers transport and kinetics in terms of systems that involve microorganisms, along with in-depth coverage of particles, size spectra, and calculations for particles that can be considered either spheres or fractals. The book's treatment of particles as fractals is especially unique and the Second Edition includes a new section on exoelectrogenic

biofilms. It also addresses dispersion in natural and engineered systems unlike any other book on the subject. Readers will learn to tackle with confidence complex environmental systems and make transport calculations in heterogeneous environments with mixtures of chemicals.

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

Optimization of Logistics Alice Yalaoui 2012-12-13

This book aims to help engineers, Masters students and young researchers to understand and gain a general knowledge of logistic systems optimization problems and techniques, such as system design, layout, stock management, quality management, lot-sizing or scheduling. It summarizes the evaluation and optimization methods used to solve the most frequent problems. In particular, the authors also emphasize some recent and interesting scientific developments, as well as presenting some industrial applications and some solved instances from real-life cases. Performance evaluation tools (Petri nets, the Markov process, discrete event simulation, etc.) and optimization techniques (branch-and-bound, dynamic programming, genetic algorithms, ant colony optimization, etc.) are presented first. Then, new optimization methods are presented to solve systems design problems, layout problems and buffer-sizing optimization. Forecasting methods, inventory optimization, packing problems, lot-sizing quality management and scheduling are presented with examples in the final chapters.