Control, Systems and Industrial Engineering

April 2015 updated catalog

forthcoming, new and backlist book titles

27-37 St George’s Road – London SW19 4EU — United Kingdom
Scientific Committee

Committee coordinators

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Topics covered

Adaptive and Learning Systems
Control Engineering
Decision Analysis
Discrete Events and Hybrid Systems
Distributed Parameter Systems
Integration of Human Factors
Interface Management
Inverse Manufacturing
Large Scale Complex Systems
Linear and Non-Linear Control Systems
Logistics and Supply Chains
Networked Systems
Operations Management
Optimal Control
Probability and Stochastic Systems
Production Engineering
Reliability
Risk Analysis and Management
Robust Control
Stochastic Systems
Supervision and Fault Tolerant Systems
System Architecture
System of Systems
Systems Modeling, Identification, Optimization
Verification and Validation
Forthcoming Sets

Aerospace Actuation Systems coordinated by Jean-Charles Maré
Algebraic Analysis Applied to the Systems Theory coordinated by Henri Bourlès
Industrial Engineering coordinated by Michel Tollenaere
Manufacturing and Quality coordinated by Pierre Maillard
Smart Innovation coordinated by Dimitri Uzunidis

Industrial Engineering
Coordinated by Michel Tollenaere
Institut National Polytechnique de Grenoble

Additive Manufacturing by Vignat Frédéric, Villeneuve François
Hospital Logistics by Di Mascolo Maria, Espinouse Marie-Laure, Marcon Eric
Operations Management of Logistics Platform by Alpan Gulgun, Ladier Anne-Laure
Process Control and Constrained Environment Maintenance by Hubac Stéphane
Project Purchases by Le Dain Marie-Anne, Calvi Richard
Traceability by Viruega Jean-Luc
Urban Logistics by Cung Van Dat, Samuel Karine

Smart Innovation
Coordinated by Dimitri Uzunidis, Université du Littoral, Dunkerque
Réseau de Recherche sur l’Innovation

Agribusiness, Agroinnovations by Touzard Jean-Marc, Daviron Benoît
Big Data, Open Data and Data Development by Monino Jean-Louis
Circular Economy and Short Circuits by Gallaud Delphine, Laperche Blandine
Eco-innovation and Energy Transition by Depret Marc-Hubert, Picard Fabienne, Tanguy Corinne
Entrepreneurial City by Boutilier Sophie, Levratto Nadine, Carré Denis
Fab Labs, the Innovative User by Morel Laure, Le Roux Serge
Innovation Capacity, Economic Development in an Open Economy
    by Liu Zeting, Casadella Vanessa, Uzunidis Dimitri
Knowledge Management and New Innovation Models by Barbaroux Pierre
Networking Innovations by Djellal Faridah, Merlin-Brogniart Céline
Transport and Sustainable Growth by Burmeister Antje

Forthcoming Titles

Applied Mechanical Design by Grous Ammar
CENELEC 50128 and IEC 62279 Standards by Boulanger Jean-Louis
E-enabled Operations Management by Briffaut Jean-Pierre
Innovating Enterprise Innovation by Canducci Massimo, Maide Neil, Missikoff Michele
Logistics Engineering and Health by Hammadi Slim, Zgaya Hayfa
Optimization Tools for Logistics by Reveillac Jean-Michel
Permanent Magnet Synchronous Machines by Auger François
Supply Chain Management and Business Performance
    by Fiore Claude, Camman Christelle, Livolsi Laurent, Querro Pascal
Systemic Modeling Development Process of Quality Objective by Maillard Pierre
Urban Logistics by Delaître Loïc
Optimization in Engineering Sciences
Metaheuristics, Stochastic Methods and Decision Support
Dan Stefanoiu, Dumitru Popescu, Politehnica University of Bucharest, Romania Pierre Borne, École Centrale de Lille, France, Florin Gh. Filip, Romanian Academy

Coordinated by Bernard Dubuisson

ISBN: 9781848214989 • 2014 • 444 pages • USD 180.00 • ISTE-WILEY

Through the principles of various proposed algorithms (with additional references) this book allows the reader to explore various methods of implementation such as metaheuristics, local search and population-based methods. It examines multi-objective and stochastic optimization, as well as methods and tools for computer-aided decision-making and simulation for decision-making.

Model-Based Systems Engineering
Fundamentals and Methods
Patrice Micouin, Laboratoire des Sciences de l’Information et des Systèmes, Aix-en-Provence, France

Coordinated by Jean-Charles Pomérol

ISBN: 9781848214699 • 2014 • 306 pages • USD 130.00 • ISTE-WILEY

This book is a contribution to the definition of a model-based system engineering (MBSE) approach that would meet the objectives laid out by the International Council on Systems Engineering (INCOSE).

Contents
Part 1. Fundamentals
2. Technological Systems.
5. Engineering Processes.
7. Designing Solutions and Design Models.
8. Verifying the Implementation Step by Step.
9. Safety Engineering.

Diversity and Non-integer Differentiation for System Dynamics
Alain Oustaloup, Institut Polytechnique de Bordeaux, Enseirb-Matmeca, France

Coordinated by Bernard Dubuisson

ISBN: 9781848214750 • 2014 • 384 pages • USD 160.00 • ISTE-WILEY

Based on a diversity-structured approach which is notably inspired by various natural forms of diversity (biological among others), this book unquestionably offers a framework, on the one hand, to the introduction of non-integer differentiation (otherwise known as fractional differentiation) as a modeling tool and, on the other hand, to the use of such a modeling form to highlight dynamic performances (and notably of damping) unsuspected in an “integer” approach of mechanics and automatic control.

Contents
1. From Diversity to Unexpected Dynamic Performances.
2. Damping Robustness.
4. On the CRONE Suspension.
5. On the CRONE Control.
6. Recursivity and Non-Integer Differentiation.
Real-time Systems Scheduling 1
Fundamentals
Edited by Maryline Chetto, Institute of Technology of the University of Nantes, France

Coordinated by Abdelhamid Mellouk

ISBN: 9781848216655 • 2014 • 308 pages • USD 140.00 • ISTE-WILEY

Real-time systems are used in a wide range of applications, including control, sensing, multimedia, etc. Scheduling is a central problem for these computing/communication systems since it is responsible for software execution in a timely manner. This book, the first of two volumes on the subject, is of interest as a general course on scheduling in real-time systems.

Contents
1. Introduction to Real-time Scheduling.
2. Uniprocessor Architecture Solutions.
5. Estimation of Execution Time and Delays.

Ordonnancement dans les systèmes temps réel – ISBN: 9781784050399
The above title is published in French by ISTE Editions (www.iste-editions.fr)

Real-time Systems Scheduling 2
Focuses
Edited by Maryline Chetto, Institute of Technology of the University of Nantes, France

Coordinated by Abdelhamid Mellouk

ISBN: 9781848217898 • 2014 • 282 pages • USD 130.00 • ISTE-WILEY

This book, the second of two volumes on the subject, brings together knowledge on specific topics and discusses the recent advances for some of them.

Contents
1. Scheduling in Energy Autonomous Objects.
2. Probabilistic Scheduling.
3. Control and Scheduling Joint Design.
4. Synchronous Approach and Scheduling.
5. Inductive Approaches for Packet Scheduling in Communication Networks.
6. Scheduling in Networks.
7. Focus on Avionics Networks.

Haptic Feedback Teleoperation of Optical Tweezers
Zhenjiang Ni, Céline Pacoret, Ryad Benosman, Stéphane Régnier, ISIR, University Pierre and Marie Curie, Paris, France

Control, Systems and Industrial Engineering Series

ISBN: 9781848216952 • 2014 • 208 pages • USD 110.00 • ISTE-WILEY

The authors of this book provide the first review of haptic optical tweezers, a new technique which brings together force feedback teleoperation and optical tweezers. They provide two new specific designs as well as the current state of the art. Furthermore, the remaining important issues are identified for further developments.

Contents
1. Introduction to Haptic Optical Tweezers.
Machinability of Advanced Materials
Edited by J. Paulo Davim, University of Aveiro, Portugal

ISBN: 9781848213968 • 2014 • 256 pages • USD 105.00 • ISTE-WILEY

Contents
6. An Investigation of Ductile Regime Machining of Silicon Nitride Ceramics.

Zonotopes
From Guaranteed State-estimation to Control
Vu Tuan Hieu Le, ESIGELEC, Cristina Stoica, Supélec, France, Teodoro Alamo and Eduardo F. Camacho, University of Seville, Spain and Didier Dumur, Supélec, France

ISBN: 9781848215894 • 2013 • 176 pages • USD 85.00 • ISTE-WILEY

Contents
1. Uncertainty Representation Based on Set Theory.
2. Several Approaches on Zonotopic Guaranteed Set-Membership Estimation.
4. Tube Model Predictive Control Based on Zonotopic Set-Membership Estimation.

Modeling of Complex Systems
Application to aeronautical dynamics
Emmanuel Grunn and Anh-Tuan Pham, ESTACA, Paris, France

ISBN: 9781848214484 • 2013 • 128 pages • USD 70.00 • ISTE-WILEY

Contents
1. 0D Analytical Modeling of the Airplane Motions.
3. Organization of the Auto-Pilot.

This book presents a collection of examples illustrating the state of the art and research developments in the machinability of advanced materials.

This title focuses on two significant problems in the field of automatic control, in particular state estimation and robust Model Predictive Control under input and state constraints, bounded disturbances and measurement noises. The authors build upon previous results concerning zonotopic set-membership state estimation and output feedback tube-based Model Predictive Control. Various existing zonotopic set-membership estimation methods are investigated and their advantages and drawbacks are discussed, making this book suitable both for researchers working in automatic control and industrial partners interested in applying the proposed techniques to real systems.

In the field of aeronautical dynamics, this book offers readers a design tool which enables them to solve the different problems that can occur during the planning stage of a private project. The authors present a system for the modeling, design and calculation of the flying qualities of airplanes and drones, with a complete mathematical model by Matlab/Simulink.
Driving Simulation
Hichem Arioui and Lamri Nehaoua, University of Évry-Val-d’Essonne, France

Coordinated by Bernard Dubuisson

ISBN: 9781848214675 • 2013 • 160 pages • USD 80.00 • ISTE-WILEY

The authors present a state of the art on safety systems and assistance for driving both motor vehicles and their two-wheeled counterparts. The main components constituting a driving simulator are described, followed by a classification of robotic architectures.

The aim of the book is to highlight the different perspectives between motor vehicles and motorcycles in order to identify relevant indicators that will help in the choosing of the mechanical architecture of the motorcycle simulator and its appropriate controls.

Simulateur de conduite – ISBN: 9781784050337
The above title is published in French by ISTE Editions (www.iste-editions.fr)

Nonlinear Physical Systems
Spectral Analysis, Stability and Bifurcations
Edited by Oleg N. Kirillov, Helmholtz-Zentrum Dresden-Rossendorf, Germany and Dmitry E. Pelinovsky, McMaster University, Canada

Coordinated by Noël Challamel

ISBN: 9781848214200 • 2013 • 448 pages • USD 180.00 • ISTE-WILEY

Bringing together 18 chapters written by leading experts in dynamical systems, operator theory, partial differential equations, and solid and fluid mechanics, this book presents state-of-the-art approaches to a wide spectrum of new and challenging stability problems.


Each chapter contains mechanical and physical examples, and the combination of advanced material and more tutorial elements makes this book attractive for both experts and non-specialists keen to expand their knowledge on modern methods and trends in stability theory.
Management and Engineering Innovation
Edited by Carolina Machado, University of Minho and J. Paulo Davim, University of Aveiro, Portugal

Control, Systems and Industrial Engineering Series

ISBN: 9781848215542 • 2013 • 272 pages • USD 115.00 • ISTE-WILEY

This book discusses management and engineering innovation with particular emphasis on human resource management (HRM) and production engineering.

Contents
1. We the Engineers and Them the Managers.
5. Struggling for Survival and Success: Can Brazil’s Defense Industry Help Foster Innovation?

Risk Analysis
Socio-technical and Industrial Systems
Jean-Marie Flaus, Joseph Fourier University, Grenoble, France

Coordinated by Jean-Paul Bourrières

ISBN: 9781848214927 • 2013 • 400 pages • USD 160.00 • ISTE-WILEY

The author begins by presenting a certain number of basic concepts, followed by the general principle of risk analysis. He then moves on to examine the ISO31000 standard, which provides a specification for the implementation of a risk management approach. The ability to represent the information we use is crucial, so the representation of knowledge, covering both information concerning the risk occurrence mechanism and details of the system under scrutiny, is also considered. The different analysis methods are then presented, firstly for the identification of risks, then for their analysis in terms of cause and effect, and finally for the implementation of safety measures.

Concrete examples are given throughout the book and the methodology and method can be applied to various fields (industry, health, organization, technical systems).

Metaheuristic Optimization for the Design of Automatic Control Laws
Guillaume Sandou, Supélec, Gif Sur Yvette, France

Coordinated by Francis Castanié

ISBN: 9781848215900 • 2013 • 144 pages • USD 70.00 • ISTE-WILEY

This book presents a new trend in Automatic Control with the use of metaheuristic algorithms. These kinds of algorithms can optimize any criterion and constraint, and therefore do not need such simplifications and reformulations.
Reverse Engineering in Control Design
Daniel Alazard, Aeronautics and Space Institute (ISAE), Toulouse, France

Coordinated by Bernard Dubuisson

ISBN: 9781848215238 • 2013 • 192 pages • USD 95.00 • ISTE-WILEY

This title proposes practical approaches to building a standard H-infinity problem taking into account an initial controller. Such approaches allow us to mix various control objectives and to initialize procedures for a fixed-structure controller design.

Contents
1. Observer-based Realization of a Given Controller.
2. Cross Standard Form and Reverse Engineering.

Multimodal Transport Systems
Edited by Slim Hammadi, Ecole Centrale de Lille, France and Mekki Ksouri, Tunis El Manar University, ENIT, Tunisia

Contents
1. Dynamic Car-pooling.
4. Solving the Problem of Dynamic Routes by Particle Swarm.
5. Optimization of Traffic at a Railway Junction: Scheduling Approaches Based on Timed Petri Nets.

Command-control for Real-time Systems
Mohammed Chadli, University of Picardy Jules Verne, Amiens and Hervé Coppier, ESIEE Amiens, France

Contents
1. Introduction.
3. Control Tools.
5. Applications to a Thermal System and to Gas Systems.
6. Application to Vehicles.
7. Real-time Implementation.
Interdisciplinary Mechatronics
Engineering Science and R&D
Edited by Maki K. Habib, The American University in Cairo, Egypt and J. Paulo Davim, University of Aveiro, Portugal

Interdisciplinary Mechatronics concerns mastering a multitude of disciplines, technologies, and their interaction, whereas Mechatronics Science concerns the invention and development of new theories, models, concepts and tools in response to new needs evolving from interacting scientific disciplines.

ISBN: 9781848214187 • 2013 • 624 pages • USD 165.00 • ISTE-WILEY

Set-theoretic Fault-tolerant Control in Multisensor Systems
Florin Stoican, IEEE, Romania and Sorin Olaru, Supélec, Gif-sur-Yvette, France

Fault-tolerant control theory is a well-studied topic but the use of the sets in detection, isolation and/or reconfiguration is rather tangential. The authors propose a systematic analysis of the set theoretic elements and devise approaches which exploit advanced elements within the field.

ISBN: 9781848215658 • 2013 • 176 pages • USD 70.00 • ISTE-WILEY

Metaheuristics for Production Scheduling
Edited by Bassem Jarboui, University of Sfax, Tunisia, Patrick Siarry, University of Paris-Est Créteil, France and Jacques Teghem, Polytechnic Faculty of Mons, Belgium

This book describes the potentialities of metaheuristics for solving production scheduling problems and the relationship between these two fields. The first part of the book presents eight applications of metaheuristics for solving various mono-objective scheduling problems. The second part is itself split into two, the first section being devoted to five multi-objective problems to which metaheuristics are adapted, while the second tackles various transportation problems related to the organization of production systems. Many real-world applications are presented by the authors, making this an invaluable resource for researchers and students in engineering, economics, mathematics and computer science.

ISBN: 9781848214972 • 2013 • 528 pages • USD 199.00 • ISTE-WILEY

Complete table of contents at http://www.iste.co.uk/index.php?f=a&ACTION=View&id=565

Complete table of contents at http://www.iste.co.uk/index.php?f=a&ACTION=View&id=579
**Loop-shaping Robust Control**

Philippe Feyel, Sagem Defense and Security, Safran group, France

*Coordinated by Bernard Dubuisson*

ISBN: 9781848214651 • 2013 • 288 pages • USD 95.00 • ISTE-WILEY

This book gives an introduction to the loop-shaping approach before going on to show how it is possible to fully integrate this approach for the calculus of robust and performant controllers using pre-existing techniques already proven in industry, such as $H^\infty$ synthesis.

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**Sustainable Supply Chain Management**

Joëlle Morana, University of Lyon, France

*Coordinated by Jean-Paul Bourrières*

ISBN: 9781848215269 • 2013 • 224 pages • USD 95.00 • ISTE-WILEY

This book presents each economic, environmental and societal aspect of SuSCM. By considering each of these dimensions separately, the primary objective is to facilitate the implementation of the elements that make it up. Readers are also provided with several “strategic interpretive lenses” to be able to perform audits and diagnostics of each component.

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**Hybrid Systems with Constraints**

Jamal Daafouz, University of Lorraine, Sophie Tarbouriech, LAAS CNRS, Toulouse and Mario Sigalotti, INRIA Palaiseau, France

*Coordinated by Hicham Abou Kandil*

ISBN: 9781848215276 • 2013 • 288 pages • USD 125.00 • ISTE-WILEY

Control theory is the main subject of this title, in particular analysis and control design for hybrid dynamic systems. This book is dedicated mainly to hybrid systems with constraints; taking constraints into account in a dynamic system description has always been a critical issue in control. New tools are provided here for stability analysis and control design for hybrid systems with operating constraints and performance specifications.
Control of Switching Systems by Invariance Analysis

Application to Power Electronics

Laurent Fribourg and Romain Soulat, ENS-Cachan, France

*Coordinated by Bernard Dubuisson*

ISBN: 9781848216068 • 2013 • 144 pages • USD 70.00 • ISTE-WILEY

The authors explain various correct-by-design methods for control synthesis, using different methods of stability and invariance analysis. They also provide several applications of these methods to industrial examples of power electronics.

Multiple Models Approach in Automation

Takagi-Sugeno Fuzzy Systems

Mohammed Chadli, University of Picardy Jules Verne, Amiens and Pierre Borne, Ecole Centrale de Lille, France

*Coordinated by Bernard Dubuisson*

ISBN: 9781848214125 • 2012 • 208 pages • USD 95.00 • ISTE-WILEY

This book concentrates on the analysis of the stability and synthesis of control laws and observations for multiple models. The authors’ approach is essentially based on Lyapunov’s second method and LMI formulation. Uncertain multiple models with unknown inputs are studied and quadratic and non-quadratic Lyapunov functions are also considered.

Vehicle Dynamics Estimation using Kalman Filtering

Moustapha Doumiati, Ali Charara, Alessandro Victorino and Daniel Lechner

*Coordinated by Bernard Dubuisson*

ISBN: 9781848213661 • 2012 • 272 pages • USD 125.00 • ISTE-WILEY

This book presents several model-based estimation methods which involve information from current potential-integrable sensors. Improving vehicle control and stabilization is possible when vehicle dynamic variables are known. The fundamental problem is that some essential variables related to tire/road friction are difficult to measure because of technical and economical reasons. Therefore, these data must be estimated. The proposed estimation processes are based on the state observer (Kalman filtering) theory and the dynamic response of a vehicle instrumented with standard sensors. These estimators are able to work in real time in normal and critical driving situations.
Optimization in Engineering Sciences

Exact Methods
Pierre Borne, Ecole Centrale de Lille, France, Dumitru Popescu and Dan Stefanoiu, Politehnica University of Bucharest and Florin G. Filip, Romanian Academy, Romania

Coordinated by Bernard Dubuisson

ISBN: 9781848214323 • 2012 • 336 pages • USD 145.00 • ISTE-WILEY

This book presents the main methods of static and dynamic optimization. Optimization is examined in relation to systems identification; optimization of dynamic systems with particular application to process control; optimization of large scale and complex systems; optimization and information systems.

Contents
1. Linear Programming.
4. Hopfield Networks.
7. Optimization of Large-Scale Systems.
8. Optimization and Information Systems.

Intelligent Non-hierarchical Manufacturing Networks

Edited by Raul Poler, Luis Carneiro, Thomas Jasinski, Marc Zolghadri and Paolo Pedrazzoli

Control, Systems and Industrial Engineering Series

ISBN: 9781848214811 • 2012 • 448 pages • USD 195.00 • ISTE-WILEY

This book provides the latest models, methods and guidelines for networked enterprises to enhance their competitiveness and move towards innovative high performance and agile industrial systems. This book collects the latest research regarding non-hierarchical manufacturing networks and provides enterprises with valuable models, methods and guidelines to improve their competitiveness.

Complete table of contents at http://www.iste.co.uk/index.php?f=a&ACTION=View&id=542

Discrete Event Systems in Dioid Algebra and Conventional Algebra

Philippe Declerck, University of Angers, France

Coordinated by Bernard Dubuisson

ISBN: 9781848214613 • 2012 • 176 pages • USD 90.00 • ISTE-WILEY

This title focuses on the modeling of a class of dynamic systems usually called “discrete event systems” where the timing of the events is crucial. Events are viewed as sudden changes in a process which is, essentially, a man-made system, such as automated manufacturing lines or transportation systems. Its main advantage is its formalism which allows us to clearly describe complex notions and the possibilities to transpose theoretical results between dioids and practical applications.

Contents
1. Introduction.
2. Consistency.
4. Control with Specifications.
5. Online Aspect of Predictive Control.
Optimization of Logistics
Alice Yalaoui, Hicham Chehade, Farouk Yalaoui and Lionel Amodeo,
University of Technology of Troyes, France

Coordinated by Jean-Paul Bourrières

ISBN: 9781848214248 • 2012 • 304 pages • USD 145.00 • ISTE-WILEY

This book summarizes the evaluation and optimization methods used to solve the most frequent logistic systems optimization problems and techniques. In particular, the authors also emphasize some recent 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.

Supervision and Safety of Complex Systems
Edited by Nada Matta, University of Technology of Troyes, Yves Vandenboomgaerde, CEA and Jean Arlat, LAAS-CNRS, France

ISBN: 9781848214132 • 2012 • 368 pages • USD 165.00 • ISTE-WILEY

This book presents results of projects carried out by both scientific and industry researchers into the techniques to help in maintenance, control, supervision and security of systems, taking into account the technical environmental and human factors.

This work is supported by the Scientific Group GIS 3SGS. It is a collaborative work from 13 partners (academic and industrial) who have come together to deal with security problems.

The problems and techniques discussed mainly focus on stochastic and dynamic modeling, maintenance, forecasting, diagnosis, reliability, performance, organizational, human and environmental factors, uncertainty and experience feedback.

Enterprise Interoperability
I-ESA’12 Proceedings
Edited by Martin Zelm, Raquel Sanchis, Raul Poler and Guy Doumeingts

ISBN: 9781848214262 • 2012 • 496 pages • USD 195.00 • ISTE-WILEY

This book contains the proceedings of 13 workshops presented as short papers and discussions held at each workshop.
Lasers in Manufacturing
Edited by J. Paulo Davim, University of Aveiro, Portugal

Control, Systems and Industrial Engineering Series

ISBN: 9781848213692 • 2012 • 320 pages • USD 147.00 • ISTE-WILEY

This book presents a collection of examples illustrating the state of the art and research developments to lasers in manufacturing.

Contents

2. Lasers in Metal Forming Applications.
3. Laser Forming of Metal Foams.
5. Laser Cutting a Small Diameter Hole: Thermal Stress Analysis.

Sustainable Reverse Logistics Network
Engineering and Management
Daoud Aït-Kadi, Marc Chouinard, Laval University, Suzanne Marcotte, UQAM, Montréal and Diane Riopel, Ecole polytechnique de Montréal, Canada

Control, Systems and Industrial Engineering Series

ISBN: 9781848213104 • 2012 • 240 pages • USD 127.00 • ISTE-WILEY

This book proposes generic concepts and processes that can be adapted to all businesses producing goods and services and which aim to integrate reverse logistics. These processes will enable us to shed light on their complexity and to take into account all the important variables.

Contents

1. Logistics Challenge.
2. Reverse Logistics Engineering.
3. Ecodesign.
4. Value Loops.

Advanced Mobility and Transport Engineering
Edited by Slim Hammadi, Ecole Centrale de Lille, France and Mekki Ksouri, Tunis El Manar University, Tunisia

Control, Systems and Industrial Engineering Series

ISBN: 9781848213777 • 2012 • 272 pages • USD 125.00 • ISTE-WILEY

The authors propose methods and tools that help transport network customers to formulate their requests when they connect to their favorite information systems through PC, laptop, cell phone, Portable Digital Assistant (PDA), etc.

Contents

1. Agent-oriented Road Traffic Simulation.
Complex Systems and Systems of Systems Engineering
Edited by Dominique Luzeaux and Jean-René Ruault, French Ministry of Defense and Jean-Luc Wippler, Consultant, France
9781848212534 • 2011 • 480 pages • USD 197.00

Mechatronics
Edited by J. Paulo Davim, University of Aveiro, Portugal
9781848213081 • 2011 • 256 pages • USD 100.00

Simulation and Modeling of Systems of Systems
Edited by Pascal Cantot, CATOD/DMT, Arcueil and Dominique Luzeaux, DGA, Bagneux, France
9781848212343 • 2011 • 400 pages • USD 187.00

Competitive Quality Strategies
IW EI 2011
Edited by Martin Zelm, M. van Sinderen, Guy Doumeingts and Pontus Johnson
9781848213173 • 2011 • 288 pages • USD 127.00

Human-Computer Interactions in Transport
Edited by Christophe Kolski, University of Valenciennes, France
9781848212794 • 2011 • 400 pages • USD 147.00

Wood Machining
Edited by J. Paulo Davim, University of Aveiro, Portugal
97818482131593 • 2011 • 288 pages • USD 96.00

Systems of Systems
Edited by Dominique Luzeaux and Jean-René Ruault, French Ministry of Defense, France
9781848211643 • 2010 • 560 pages • USD 215.00

Product Lifecycle Management
Geometric Variations
Edited by Max Giordano, University of Savoy, Luc Mathieu, Paris-Sud University and François Villeneuve, University of Grenoble, France
9781848212763 • 2010 • 576 pages • USD 215.00

Geometric Tolerancing of Products
Edited by François Villeneuve, University of Grenoble and Luc Mathieu, Paris-Sud University, France
9781848211186 • 2010 • 400 pages • USD 160.00

CEISIE’2009
Edited by Bing Wu, Dublin Institute of Technology, Ireland and Jean-Paul Bourrières, IMS, University Bordeaux 1, France
9781848211346 • 2010 • 320 pages • USD 165.00

Supply Chain Performance
Collaboration, Alignment and Coordination
Edited by Valérie Botta-Genoulaz and Jean-Pierre Campagne, INSA Lyon, Daniel Llerena, Grenoble University and Claude Pellegrin, Lyon University, France
9781848212190 • 2010 • 400 pages • USD 165.00

Sustainable Manufacturing
Edited by J. Paulo Davim, University of Aveiro, Portugal
9781848212121 • 2010 • 256 pages • USD 107.00

Flexibility and Robustness in Scheduling
Edited by Jean-Charles Billaut, University of Tours, Aziz Moukrim, University of Technology of Compiègne and Eric Sanlaville, University of Clermont-Ferrand, France
9781848210547 • 2008 • 352 pages • USD 215.00

Petri Nets
Fundamental Models, Verification and Applications
Edited by Michel Diaz, LAAS-CNRS, Toulouse, France
9781848210790 • June 2009 • 624 pages • USD 325.00

Intelligent Machining
Modeling and Optimization of the Machining Processes and Systems
Edited by Tugrul Özel, Rutgers University, USA and J. Paulo Davim, University of Aveiro, Portugal
9781848211292 • 2009 • 288 pages • USD 140.00

Linear Systems
Edited by Denis Dochain, KU Leuven, Belgium
9781848210257 • 2008 • 248 pages • USD 180.00

Bioprocess Control
Edited by Philippe de Larminat, IRCCyN, Nantes, France
9781905209354 • 2007 • 560 pages • USD 300.00

Analysis and Control of Linear Systems
Edited by Christian Artigues, LAAS-CNRS, Toulouse, Sophie Demasse, Ecole des Mines de Nantes and Emmanuel Néron, Polytech Tours, France
9781848210349 • 2008 • 320 pages • USD 160.00

Resource-Constrained Project Scheduling
Models, Algorithms, Extensions and Applications
Edited by Pierre Lopez and François Roubellat, LAAS-CNRS, Toulouse, France
9781848210172 • 2008 • 392 pages • USD 215.00

Production Scheduling
Edited by Christian Artigues, LAAS-CNRS, Toulouse, France
9781848210172 • 2008 • 392 pages • USD 215.00
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<th>ISBN</th>
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<td><strong>Fault Trees</strong></td>
<td>Nikolaos Limnios, University of Technology of Compiègne, France</td>
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<td>9781905209309</td>
<td>2007</td>
<td>224</td>
<td>USD 125.00</td>
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<td><strong>Simulation For Supply Chain Management</strong></td>
<td>Edited by Caroline Thierry, University of Toulouse, André Thomas, ENSTIB, Nancy University and Gérard Bel, French Aerospace Lab., France</td>
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