



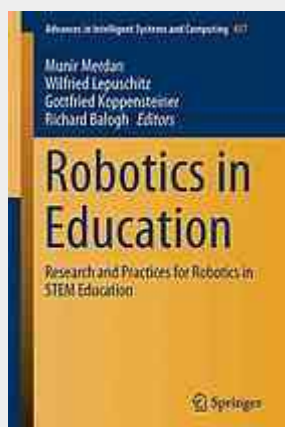
## Soft methods for data science /

Maria Brigida **Ferraro**

2017

xvi, 535 pages : illustrations (some color) ; 24 cm.  
ISBN: 331942971X 9783319429717

A collection of peer reviewed papers presented at the 8th International Conference on Soft Methods in Probability and Statistics (SMPS 2016) held in Rome (Italy). The book is dedicated to data science which aims at developing automated methods to analyze massive amounts of data and to extract knowledge from them. It shows how data science employs various programming techniques and methods of data wrangling, data visualization, machine learning, probability and statistics....



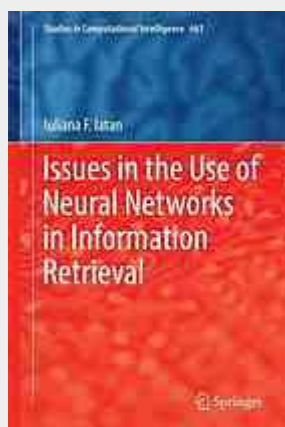
## Robotics in education : research and practices for robotics in STEM education /

Munir **Merdan**

2017

xi, 289 pages : illustrations (chiefly color) ; 24 cm.  
ISBN: 9783319429748 3319429744

This proceedings volume showcases the latest achievements in research and development in Educational Robotics presented at the 7th International Conference on Robotics in Education (RiE) held in Vienna, Austria, during April 14-15, 2016. The book offers a range of methodologies for teaching robotics and presents various educational robotics curricula



## Issues in the use of neural networks in information retrieval /

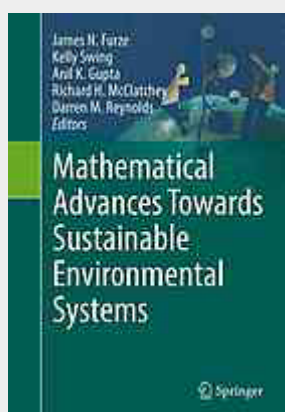
Iuliana F Iatan

2017

xix, 199 pages : illustrations (some color) ; 25 cm.

ISBN: 9783319438702 3319438700

"This book highlights the ability of neural networks (NNs) to be excellent pattern matchers and their importance in information retrieval (IR), which is based on index term matching. The book defines a new NN-based method for learning image similarity and describes how to use fuzzy Gaussian neural networks to predict personality. It introduces the fuzzy Clifford Gaussian network, and two concurrent neural models: (1) concurrent fuzzy nonlinear perceptron modules, and (2) concurrent fuzzy Gaussian neural network modules....



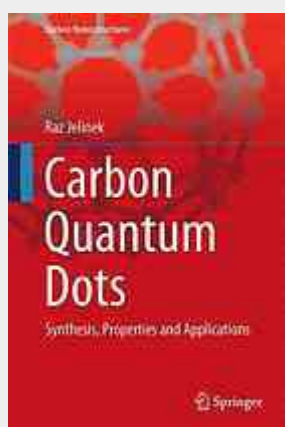
## Mathematical advances towards sustainable environmental systems /

James N **Furze**; Kelly **Swing**; Anil K **Gupta**; Richard H **McClatchey**; Darren M **Reynolds**

2017

xviii, 347 pages : illustrations (sme color) ; 24 cm

ISBN: 9783319439006 3319439006



## Carbon quantum dots : synthesis, properties and applications /

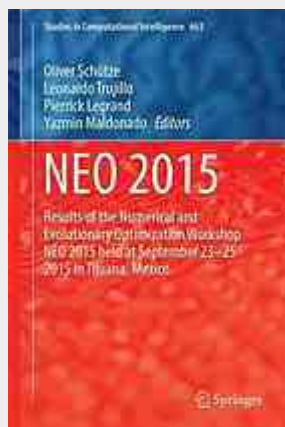
Raz Jelinek

2017

v, 130 pages : illustrations (chiefly color) ; 24 cm.

ISBN: 9783319439099 331943909X

This book introduces the various aspects of the emerging field of carbon dots. Their structural and physico-chemical properties as well as their current and future potential applications are covered. A special chapter on graphene quantum dots is provided. The reader will also find different synthesis routes for carbon quantum dots.



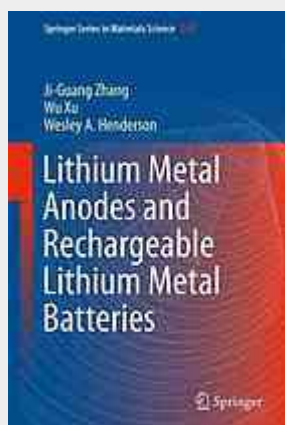
## **NEO 2015 :** **results of the numerical and evolutionary optimization** **workshop NEO 2015 held at september 23-25 2015 in** **Tijuana, Mexico.**

Oliver **Schütze**; Leonardo **Trujillo**; Pierrick **Legrand**; Yazmin **Maldonado**

2017

xvi, 444 Seiten : Illustrationen, Diagramme, Karten (farbig)

ISBN: 9783319440026 3319440020 9783319440033 3319440039



## **Lithium metal anodes and rechargeable lithium** **metal batteries /**

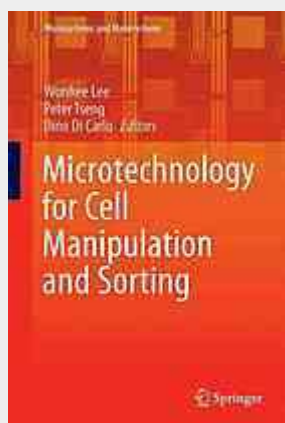
Ji-Guang **Zhang**; Xu **Wu**, (Computer scientist); Wesley A **Henderson**

2017

xv, 194 pages : illustrations (some color) 25 cm.

ISBN: 9783319440538 3319440535

This book provides comprehensive coverage of Lithium (Li) metal anodes for rechargeable batteries. Li is an ideal anode material for rechargeable batteries due to its extremely high theoretical specific capacity (3860 mAh g<sup>-1</sup>), low density (0.59 g cm<sup>-3</sup>), and the lowest negative electrochemical potential (3.040 V vs. standard hydrogen electrode). Unfortunately, uncontrollable dendritic Li growth and limited Coulombic efficiency during Li deposition/stripping inherent in these batteries have prevented their practical applications over the past 40 years....



## **Microtechnology for cell manipulation and** **sorting /**

Wonhee **Lee**; Peter **Tseng**; Dino **Di Carlo**

2017

ix, 281 pages : illustrations.

ISBN: 9783319441375 331944137X

This book delves into the recent developments in the microscale and microfluidic technologies that allow manipulation at the single and cell aggregate level. Expert authors review the dominant mechanisms that manipulate and sort biological structures, making this a state-of-the-art overview of conventional cell sorting techniques, the principles of microfluidics, and of microfluidic devices....



## **Green IT engineering : concepts, models, complex systems architectures /**

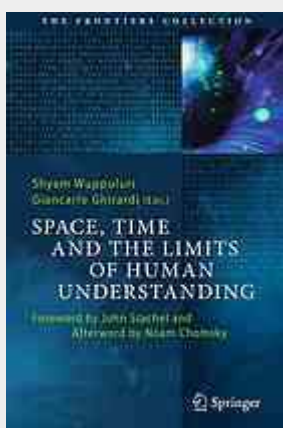
Vjaceslav **Charcenko**; Yuriy P **Kondratenko**; Janusz **Kacprzyk**

2017

xiv, 305 Seiten : Diagramme ; 23.5 cm x 15.5 cm, 0 g

ISBN: 9783319441610 9783319441627 3319441620 3319441612

This volume provides a comprehensive state of the art overview of a series of advanced trends and concepts that have recently been proposed in the area of green information technologies engineering as well as of design and development methodologies for models and complex systems architectures and their intelligent components. The contributions included in the volume have their roots in the authors?...



## **Space, time, and the limits of human understanding /**

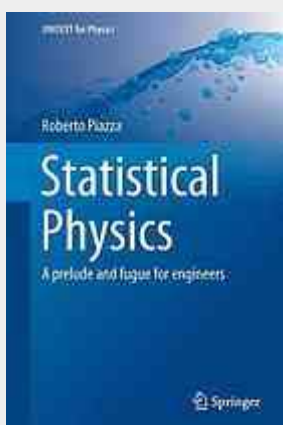
Shyam **Wuppuluri**; G C **Ghirardi**; John J **Stachel**; Noam **Chomsky**

2017

xxiii, 530 pages : illustrations (some color) ; 25 cm.

ISBN: 9783319444178 3319444174

"In this compendium of essays, some of the world's leading thinkers discuss their conceptions of space and time, as viewed through the lens of their own discipline. With an epilogue on the limits of human understanding, this volume hosts contributions from six or more diverse fields. It presumes only rudimentary background knowledge on the part of the reader....



## **Statistical physics : a prelude and fugue for engineers /**

Roberto **Piazza**

2017

xv, 453 pages : illustrations ; 25 cm.

ISBN: 9783319445366 3319445367

This book, provides a general introduction to the ideas and methods of statistical mechanics with the principal aim of meeting the needs of Master's students in chemical, mechanical, and materials science engineering. Extensive introductory information is presented on many general physics topics in which students in engineering are inadequately trained, ranging from the Hamiltonian formulation of classical mechanics to basic quantum mechanics, electromagnetic fields in matter, intermolecular forces, and transport phenomena.



## **3D microelectronic packaging : from fundamentals to applications /**

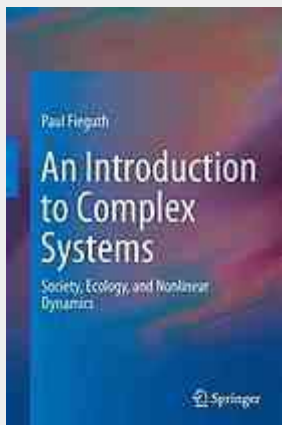
Yan Li

2017

IX, 463 str. : ilustr. ; 25 cm.

Cham : Springer, ; ISBN: 9783319445847 3319445847 9783319445861 3319445863

This volume provides a comprehensive reference for graduate students and professionals in both academia and industry on the fundamentals, processing details, and applications of 3D microelectronic packaging, an industry trend for future microelectronic packages. Chapters written by experts cover the most recent research results and industry progress in the following areas: TSV, die processing, micro bumps, direct bonding, thermal compression bonding, advanced materials, heat dissipation, thermal management, thermal mechanical modeling, quality, reliability, fault isolation, and failure analysis of 3D microelectronic packages....



## **An introduction to complex systems : society, ecology, and nonlinear dynamics /**

Paul Fieguth

2017

xii, 346 Seiten : Illustrationen ; 23.5 cm x 15.5 cm.

ISBN: 9783319446059 3319446053

This undergraduate text explores a variety of large-scale phenomena - global warming, ice ages, water, poverty - and uses these case studies as a motivation to explore nonlinear dynamics, power-law statistics, and complex systems. Although the detailed mathematical descriptions of these topics can be challenging, the consequences of a system being nonlinear, power-law, or complex are in fact quite accessible....





## **Fundamentals of biomechanics : equilibrium, motion, and deformation /**

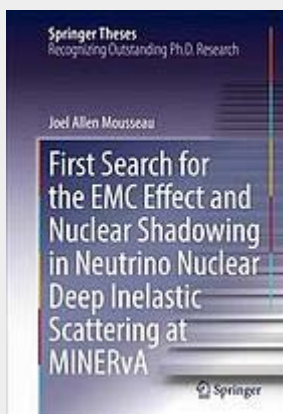
Nihat **Özkaya**; David **Goldsheyder**; Margareta **Nordin**; Dawn **Leger**

2017, **Fourth edition.**

xv, 454 pages : illustrations ; 29 cm

ISBN: 9783319447377 3319447378 9783319447384 3319447386

"This textbook integrates the classic fields of mechanics-statics, dynamics, and strength of materials-using examples from biology and medicine. The book is excellent for teaching either undergraduates in biomedical engineering programs or health care professionals studying biomechanics at the graduate level. Extensively revised from a successful third edition, Fundamentals of Biomechanics features a wealth of clear illustrations, numerous worked examples, and many problem sets....



## **First Search for the EMC Effect and Nuclear Shadowing in Neutrino Nuclear Deep Inelastic Scattering at MINERvA /**

Joel Allen **Mousseau**

2017

ISBN: 9783319448411 3319448412

This thesis details significant improvements in the understanding of the nuclear EMC effect and nuclear shadowing in neutrino physics, and makes substantial comparisons with electron scattering physics. Specifically, it includes a world's first systematic study of the EMC ratios of carbon, iron and lead to plastic scintillator of neutrinos. The analysis presented provides the best evidence to date that the EMC effect is similar between electrons and neutrinos within the sensitivity of the data....



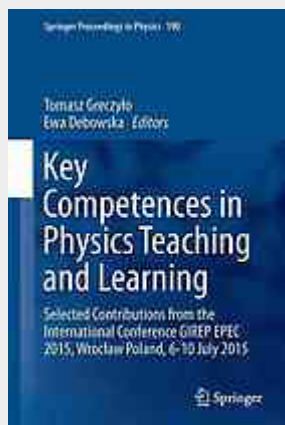
## **Nanovate Commercializing Disruptive Nanotechnologies.**

Mohab **Anis**; Ghada Altaher **Abdelhamed**; Wesam **Sarhan**

2017

Springer Verlag ; ISBN: 9783319448619 3319448617

This book introduces readers from diverse backgrounds to the principles underlying nanotechnology, from devices to systems, while also describing in detail how businesses can use nanotechnology to redesign their products and processes, in order to have a clear edge over their competition. The authors include 75 case studies, describing in a highly-accessible manner, real nanotechnology innovations from 15 different industrial sectors....



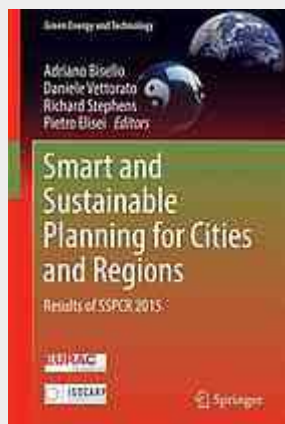
## **Key competences in physics teaching and learning :** **selected contributions from the International Conference** **GIREP EPEC 2015, Wrocław Poland, 6-10 July 2015 /**

Tomasz **Greczylo**; Ewa **Debowska**

2017

xii, 230 pages : illustrations (chiefly color) ; 24 cm.

ISBN: 9783319448862 3319448862 Part I: Towards Shaping Key Competences -- Role of Key Competences in Physics Teaching and Learning -- Competence and Understanding: A Personal perspective -- Analysing the Competency of Mathematical Modelling in Physics -- Introduction of Current Scientific Results to Education: Experiences from the Case of Liquid Crystals -- The Influence of Epistemic Views about the Relationship between Physics and Mathematics in Understanding Physics Concepts and Problem Solving -- Part II: Educational research and development -- Analysing the Conceptions on Modelling of Engineering Undergraduate Students: A Case Study Using Cluster Analysis -- Classroom Evidence of Teachers' PCK of the Interplay of Physics and Mathematics -- Development of Research Based Teaching Materials: The Learning Output of a Course for Geometrical Optics for Lower Secondary Students....



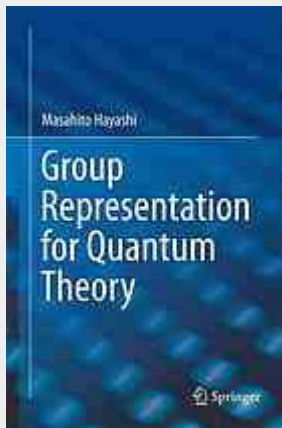
## **Smart and sustainable planning for cities and regions :** **results of SSPCR 2015 /**

Adriano **Bisello**

2017

xvii, 435 Seiten : Illustrationen, Diagramme, Karten ; 23.5 x 16 cm, 0 g.  
ISBN: 9783319448985 3319448986 9783319448992 3319448994

This book presents cutting-edge work on innovative planning methodologies, tools and experiences aimed at supporting the transition of our cities and regions towards a more smart and sustainable dimension. This book comprises a selection of the best papers from the international conference Smart and Sustainable Planning for Cities and Regions 2015, held in November 2015 in Bolzano, Italy....



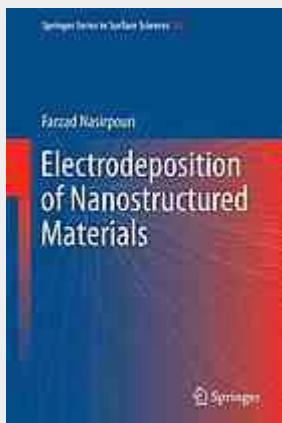
## Group representation for quantum theory /

Masahito **Hayashi**

2017

xxviii, 338 pages ; 24 cm  
ISBN: 9783319449043 3319449044

This book explains the group representation theory for quantum theory in the language of quantum theory. As is well known, group representation theory is very strong tool for quantum theory, in particular, angular momentum, hydrogen-type Hamiltonian, spin-orbit interaction, quark model, quantum optics, and quantum information processing including quantum error correction....



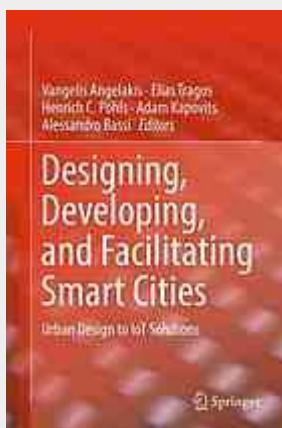
## Electrodeposition of nanostructured materials /

Farzad **Nasirpour**

2017

xii, 325 Seiten. : Illustrationen, Diagramme.  
ISBN: 9783319449197 3319449192 9783319449203 3319449206

Defect Structure and Properties of Nanomaterials: Second and Extended Edition covers a wide range of nanomaterials including metals, alloys, ceramics, diamond, carbon nanotubes, and their composites. This new edition is fully revised and updated, covering important advances that have taken place in recent years. Nanostructured materials exhibit unique mechanical and physical properties compared with their coarse-grained counterparts, therefore these materials are currently a major focus in materials science....



## Designing, developing, and facilitating smart cities : urban design to IoT solutions /

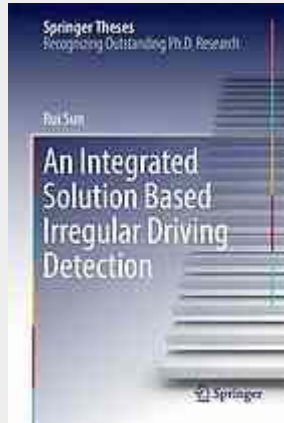
Vangelis **Angelakis**; Elias **Tragos**; Henrich C **Pöhls**; Adam **Kapovits**;  
Alessandro **Bassi**

2017

xiv, 336 pages : illustrations ; 24 cm

ISBN: 3319449222 9783319449227 This book discusses how smart cities strive to deploy and interconnect infrastructures and services to guarantee that authorities and citizens have access to reliable and global customized services. The book addresses the wide range of topics present in the design, development and running of smart cities, ranging from big data management, Internet of Things, and sustainable urban planning....





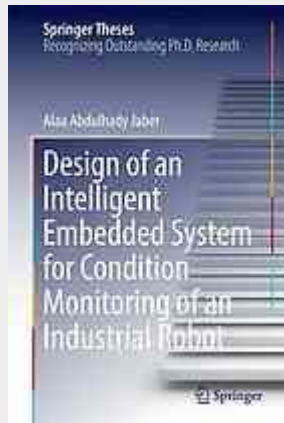
## **An Integrated Solution Based Irregular Driving Detection /**

**Rui Sun**

2017

ISBN: 9783319449265 3319449265 9783319449258 3319449257

This thesis introduces a new integrated algorithm for the detection of lane-level irregular driving. To date, there has been very little improvement in the ability to detect lane level irregular driving styles, mainly due to a lack of high performance positioning techniques and suitable driving pattern recognition algorithms. The algorithm combines data from the Global Positioning System (GPS), Inertial Measurement Unit (IMU) and lane information using advanced filtering methods....



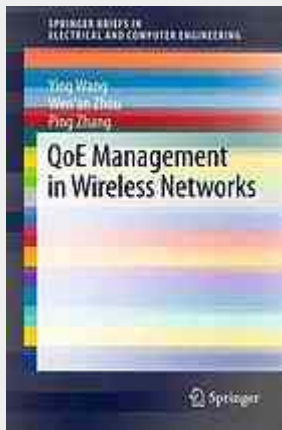
## **Design of an intelligent embedded system for condition monitoring of an industrial robot.**

**Alaa Abdulhady Jaber**

2017 **1st ed. 2017.**

ISBN: 3319449311 9783319449319

This thesis introduces a successfully designed and commissioned intelligent health monitoring system, specifically for use on any industrial robot, which is able to predict the onset of faults in the joints of the geared transmissions. However the developed embedded wireless condition monitoring system leads itself very well for applications on any power transmission equipment in which the loads and speeds are not constant, and access is restricted....



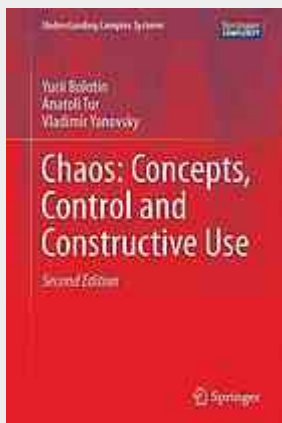
## QoE management in wireless networks /

Ying **Wang**; Wen'an **Zhang**; Ping **Zhang**

2017

xii, 60 pages : illustrations ; 24 cm.  
ISBN: 9783319424521 3319424521

This SpringerBrief presents research results on QoE management schemes for mobile services, including user services, and resource allocation. Along with a review of the research literature, it offers a data-driven architecture for personalized QoE management in wireless networks. The primary focus is on introducing efficient personalized character extraction mechanisms, e.g....



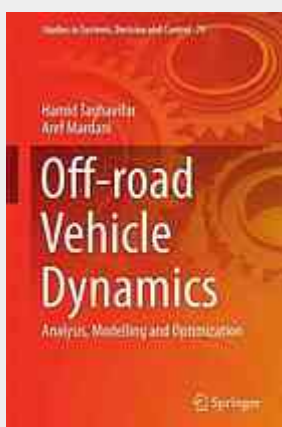
## Chaos : concepts, control and constructive use /

Yurii **Bolotin**; Anatoli **Tur**; Vladimir **Yanovsky**

2017 **2nd ed.**

(xi, 281 pages) : illustrations.  
ISBN: 9783319424965 3319424963 3319424955 9783319424958

This book offers a short and concise introduction to the many facets of chaos theory. While the study of chaotic behavior in nonlinear, dynamical systems is a well-established research field with ramifications in all areas of science, there is a lot to be learnt about how chaos can be controlled and, under appropriate conditions, can actually be constructive in the sense of becoming a control parameter for the system under investigation, stochastic resonance being a prime example....



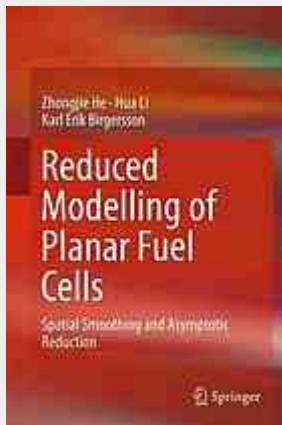
## Off-road Vehicle Dynamics : Analysis, Modelling and Optimization /

Hamid **Taghavifar**; Aref **Mardani**

2017

(x, 183 pages 118 illustrations, 86 illustrations in color.) : online resource.  
ISBN: 9783319425207 331942520X 9783319425191 3319425196

This book deals with the analysis of off-road vehicle dynamics from kinetics and kinematics perspectives and the performance of vehicle traversing over rough and irregular terrain. The authors consider the wheel performance, soil-tire interactions and their interface, tractive performance of the vehicle, ride comfort, stability over maneuvering, transient and steady state conditions of the vehicle traversing, modeling the aforementioned aspects and optimization from energetic and vehicle mobility perspectives....



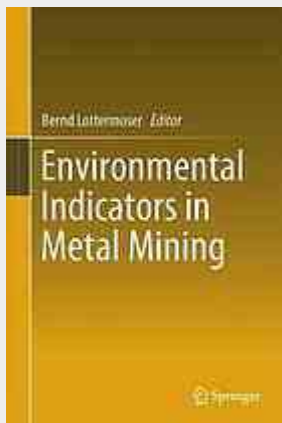
## Reduced modelling of planar fuel cells : spatial smoothing and asymptotic reduction /

Zhongjie **He**; Hua **Li**; Karl Erik **Birgersson**

2017

xxiv, 291 pages : color illustrations ; 25 cm  
ISBN: 9783319426457 3319426451

This book focuses on novel reduced cell and stack models for proton exchange membrane fuel cells (PEMFCs) and planar solid oxide fuel cells (P-SOFCs) that serve to reduce the computational cost by two orders of magnitude or more with desired numerical accuracy, while capturing both the average properties and the variability of the dependent variables in the 3D counterparts....



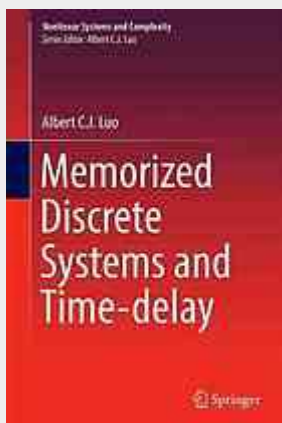
## Environmental Indicators in Metal Mining /

Bernd G **Lottermoser**

2017

xv, 413 Seiten : Illustrationen.  
ISBN: 9783319427294 3319427296

This book represents an important new contribution to the literature that presents practical and comprehensive solutions to mining activities. Its timely content has been prepared by several experts from around the world and its practical format addresses the major environmental predictive techniques required for the extraction and processing of metal resources....



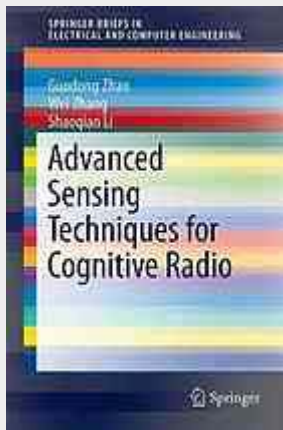
## Memorized discrete systems and time-delay /

Albert C J **Luo**

2017

(307 pages).  
ISBN: 3319427784 9783319427782

This book examines discrete dynamical systems with memory--nonlinear systems that exist extensively in biological organisms and financial and economic organizations, and time-delay systems that can be discretized into the memorized, discrete dynamical systems. It book further discusses stability and bifurcations of time-delay dynamical systems that can be investigated through memorized dynamical systems as well as bifurcations of memorized nonlinear dynamical systems, discretization methods of time-delay systems, and periodic motions to chaos in nonlinear time-delay systems....



## Advanced sensing techniques for cognitive radio

/

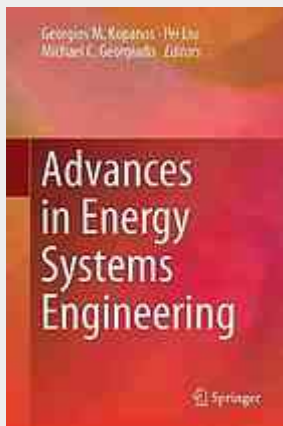
Guodong **Zhao**; Wei **Zhang**; Shaoqian **Li**

2017

x, 76 pages : illustrations ; 24 cm.

ISBN: 9783319427836 3319427830

This SpringerBrief investigates advanced sensing techniques to detect and estimate the primary receiver for cognitive radio systems. Along with a comprehensive overview of existing spectrum sensing techniques, this brief focuses on the design of new signal processing techniques, including the region-based sensing, jamming-based probing, and relay-based probing....

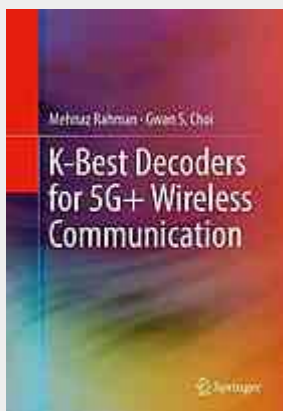


## Advances in Energy Systems Engineering /

Georgios M **Kopanos**; Pei **Liu**; Michael C **Georgiadis**

2017

ISBN: 9783319428031 3319428039



## K-best decoders for 5G+ wireless communication

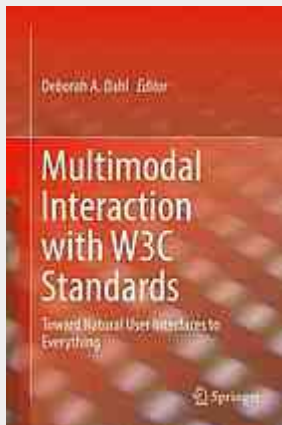
Mehnaz **Rahman**

2017

xiv, 64 pages : illustrations ; 24 cm

ISBN: 9783319428086 331942808X

This book discusses new, efficient and hardware realizable algorithms that can attain the performance of beyond 5G wireless communication. The authors explain topics gradually, stepping from basic MIMO detection to optimized schemes for both hard and soft domain MIMO detection and also to the feasible VLSI implementation, scalable to any MIMO configuration (including massive MIMO, used in satellite/space communication)....



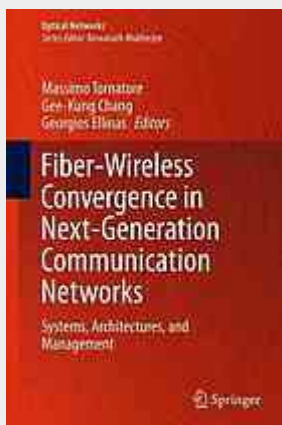
## Multimodal interaction with W3C standards : toward natural user interfaces to everything /

Deborah Anna **Dahl**

2017

xxix, 422 pages : illustrations ; 24 cm.  
ISBN: 9783319428147 3319428144

This book presents new standards for multimodal interaction published by the W3C and other standards bodies in straightforward and accessible language, while also illustrating the standards in operation through case studies and chapters on innovative implementations. The book illustrates how, as smart technology becomes ubiquitous, and appears in more and more different shapes and sizes, vendor-specific approaches to multimodal interaction become impractical, motivating the need for standards....



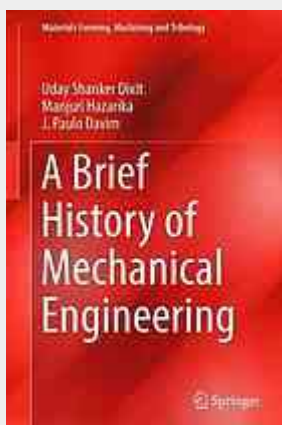
## Fiber-wireless convergence in next-generation communication networks : systems, architectures, and management /

Massimo **Tornatore**; Gee-Kung **Chang**; Georgios **Ellinas**

2017

xxvii, 406 pages : illustrations (chiefly color) ; 25 cm.  
ISBN: 9783319428208 3319428209

This book investigates new enabling technologies for Fi-Wi convergence. The editors discuss Fi-Wi technologies at the three major network levels involved in the path towards convergence: system level, network architecture level, and network management level. The main topics will be: a. At system level: Radio over Fiber (digitalized vs. analogic, standardization, E-band and beyond) and 5G wireless technologies; b....



## A brief history of mechanical engineering /

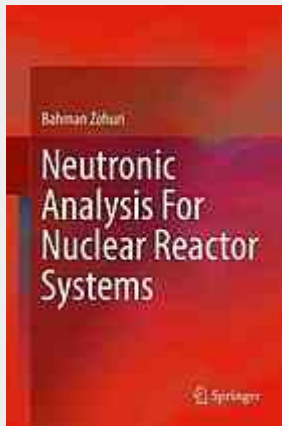
Uday S **Dixit**; Manjuri **Hazarika**; J Paulo **Davim**

2017

xvi, 178 pages : illustrations (some color) ; 25 cm.  
ISBN: 9783319429144 3319429140

What is mechanical engineering? What a mechanical engineering does? How did the mechanical engineering change through ages? What is the future of mechanical engineering? This book answers these questions in a lucid manner. It also provides a brief chronological history of landmark events and answers questions such as: When was steam engine invented?...





## Neutronic analysis for nuclear reactor systems /

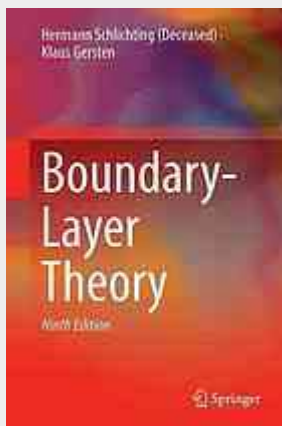
Bahman **Zohuri**

2017

xxii, 551 pages : illustrations ; 25 cm

ISBN: 3319429620 9783319429625

This book covers the entire spectrum of the science and technology of nuclear reactor systems, from underlying physics, to next generation system applications and beyond. Beginning with neutron physics background and modeling of transport and diffusion, this self-contained learning tool progresses step-by-step to discussions of reactor kinetics, dynamics, and stability that will be invaluable to anyone with a college-level mathematics background wishing to develop an understanding of nuclear power....



## Boundary-layer theory /

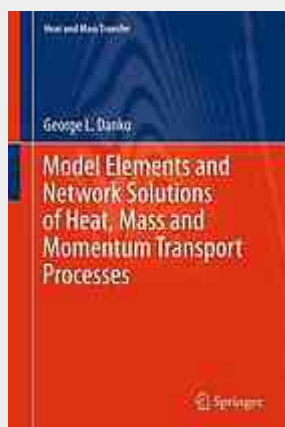
Hermann **Schlichting**; Klaus **Gersten**

2017 **Ninth edition.**

XXVIII, 805 Seiten : Illustrationen, Diagramme ; 23.5 x 16 cm, 1280 g

ISBN: 9783662529171 3662529173 9783662529195 366252919X

This new edition of the near-legendary textbook by Schlichting and revised by Gersten presents a comprehensive overview of boundary-layer theory and its application to all areas of fluid mechanics, with particular emphasis on the flow past bodies (e.g. aircraft aerodynamics). The new edition features an updated reference list and over 100 additional changes throughout the book, reflecting the latest advances on the subject.



## Model elements and network solutions of heat, mass and momentum transport processes /

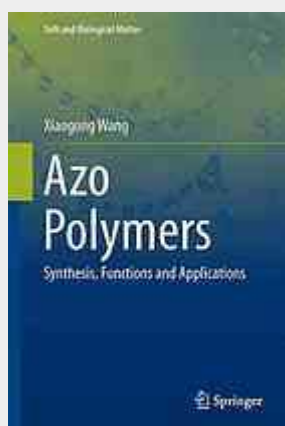
George L **Danko**

2017

xvii, 251 pages : illustrations ; 24 cm.

ISBN: 9783662529294 3662529297

This work provides an enormous contribution to the broad effort of modeling heat, mass and momentum transport in multi-physics problems with the development of new solution approaches. It re-visits the time-honored technique of network application using flow network solutions for all transport process components for a coupled modeling task. The book further provides as formulation of the conservation laws for mass, energy and momentum, specifically for the branches and nodes of transport networks using the combination of the Eulerian and Lagrangean modeling methods....



## Azo polymers : synthesis, functions and applications /

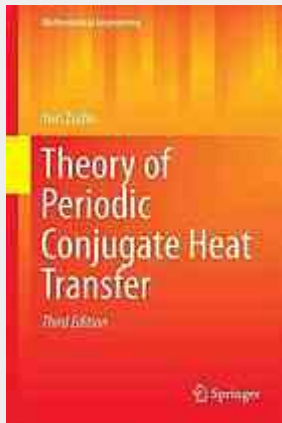
Xiaogong **Wang**

2017

xiii, 230 : illustrations (some color) ; 25 cm.

ISBN: 3662534223 9783662534229

This book explores functional polymers containing aromatic azo chromophores in side-chain, main-chain and other parts of their structures, known as azo polymers and which share common photoresponsive properties. It focuses on the molecular architecture of azo polymers, the synthetic methods and their most important functions, such as photoinduced birefringence and dichroism, surface-relief-grating (SRG) formation, and light-driven deformation of liquid crystal elastomers....



## **Theory of Periodic Conjugate Heat Transfer**

Yuri **Zudin**

2017 **3rd ed. 2017**

x 15.5 cm, 0 g

ISBN: 9783662534441 3662534444

This book provides a detailed yet comprehensive presentation of the theory of periodic conjugate heat transfer. It contains an analytical approach to the effects of thermophysical and geometrical properties of a solid body on the experimentally determined heat transfer coefficient. The main objective of the book is a simplified description of the interaction between a solid body and a fluid as a boundary value problem of the heat conduction equation....



## **Advances in neuromorphic hardware exploiting emerging nanoscale devices.**

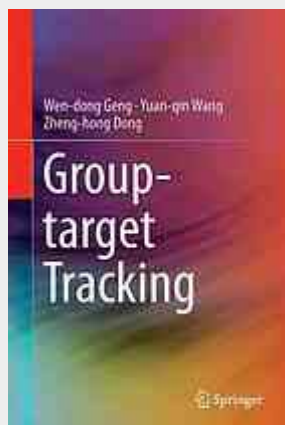
MANAN **SURI**

2017 **1ST ed. 2017.**

[Place of publication not identified] : SPRINGER, INDIA, PRIVATE, ;

ISBN: 8132237013 9788132237013

This book covers all major aspects of cutting-edge research in the field of neuromorphic hardware engineering involving emerging nanoscale devices. Special emphasis is given to leading works in hybrid low-power CMOS-Nanodevice design. The book offers readers a bidirectional (top-down and bottom-up) perspective on designing efficient bio-inspired hardware....



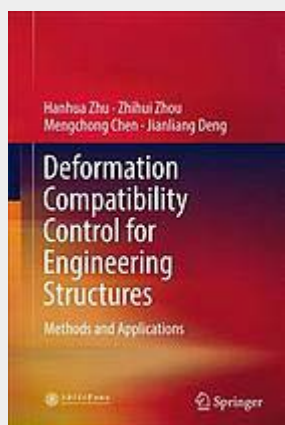
## Group-target Tracking /

Wen-dong **Geng**; Yuan-qin **Wang**; Zheng-hong **Dong**

2017

(XIII, 168 pages 40 illustrations, 31 illustrations in color.) : online resource  
ISBN: 9789811018886 981101888X

This book describes grouping detection and initiation; group initiation algorithm based on geometry center; data association and track continuity; as well as separate-detection and situation cognition for group-target. It specifies the tracking of the target in different quantities and densities. At the same time, it integrates cognition into the application....



## Deformation compatibility control for engineering structures : methods and applications /

Hanhua **Zhu**; Zhihui **Zhou**; Mengchong **Chen**; Jianliang **Deng**

2017

xii, 116 pages : illustrations ; 24 cm  
ISBN: 9789811018923 9811018928

This book presents essential methods of deformation compatibility control, and explicitly addresses the implied conditions on the methods' deformation compatibility. Consequently, these conditions can be considered in engineering structure design, while the conditions on stable equilibrium can be taken into account in the design method. Thus, the designed deformation and the actual deformation of the respective structure are approximately identical, guaranteeing both the flexibility of the construction material in force transmission and the equilibrium of force in the structure....



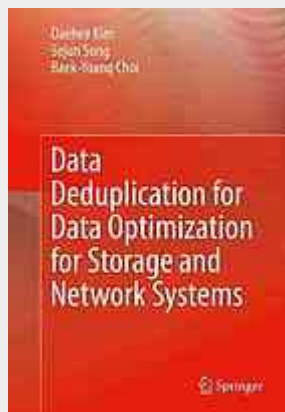
## Proceedings of the 7th International Conference on Discrete Element Methods /

Xikui **Li**; Yuntian **Feng**; Graham **Mustoe**

2017

(XLIX, 1455 pages 966 illustrations) : online resource.  
ISBN: 9789811019265 9811019266 9789811019258 9811019258

This book presents the latest advances in Discrete Element Methods (DEM) and technology. It is the proceeding of 7th International Conference on DEM which was held at Dalian University of Technology on August 1 - 4, 2016. The subject of this book are the DEM and related computational techniques such as DDA, FEM/DEM, molecular dynamics, SPH, Meshless methods, etc....



## Data deduplication for data optimization for storage and network systems /

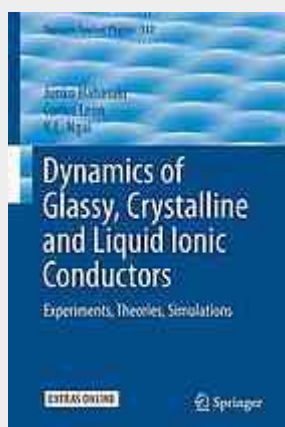
Daehee **Kim**; Sejun **Song**; Baek-Young **Choi**

2017

xiii, 262 pages : illustrations (some color) ; 24 cm.

ISBN: 9783319422787 3319422782

This book introduces fundamentals and trade-offs of data de-duplication techniques. It describes novel emerging de-duplication techniques that remove duplicate data both in storage and network in an efficient and effective manner. It explains places where duplicate data are originated, and provides solutions that remove the duplicate data. It classifies existing de-duplication techniques depending on size of unit data to be compared, the place of de-duplication, and the time of de-duplication....



## Dynamics of glassy, crystalline and liquid ionic conductors experiments, theories, simulations

Junko **Habasaki**; Carlos **León**; K L **Ngai**

2017

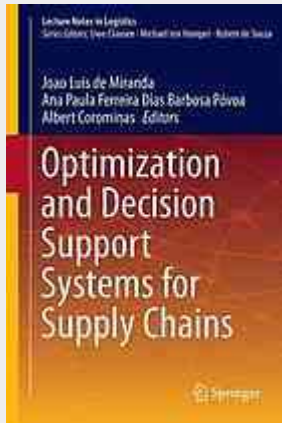
xix, 600 Seiten Illustrationen, Diagramme 23.5 x 16 cm, 0 g

[Cham, Switzerland] Springer ; ISBN: 3319423894 9783319423890

9783319423913 3319423916

This book discusses the physics of the dynamics of ions in various ionically conducting materials, and applications including electrical energy generation and storage. The experimental techniques for measurements and characterization, molecular dynamics simulations, the theories of ion dynamics, and applications are all addressed by the authors, who are experts in their fields....





## Optimization and decision support systems for supply chains /

Ana Paula **Barbosa-Póvoa**; Albert **Corominas Subias**; João Luís **De Miranda**

2017

xiv, 190 pages : illustrations (some color), color maps ; 24 cm.  
ISBN: 9783319424194 331942419X

This contributed volume presents a collection of materials on supply chain management including industry-based case studies addressing petrochemical, pharmaceutical, manufacturing and reverse logistics topics. Moreover, the book covers sustainability issues, as well as optimization approaches. The target audience comprises academics, industry managers, and practitioners in the field of supply chain management, being the book also beneficial for graduate students.



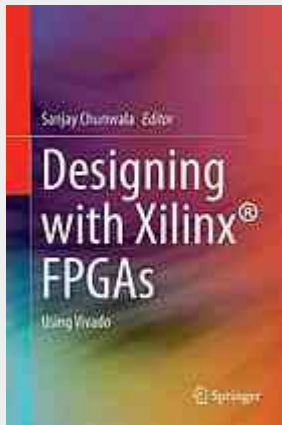
## Joining Technologies for Composites and Dissimilar Materials, Volume 10 : Proceedings of the 2016 Annual Conference on Experimental and Applied Mechanics" /

Gary L **Cloud**; Eann **Patterson**; David **Backman**

2017

ISBN: 9783319424262 3319424262

Joining Technologies for Composites and Dissimilar Materials, Volume 10 of the Proceedings of the 2016 SEM Annual Conference & Exposition on Experimental and Applied Mechanics, the tenth volume of ten from the Conference, brings together contributions to this important area of research and engineering. The collection presents early findings and case studies on a wide range of areas, including: Composite Joints Non-Adhesive Bonding Adhesive Bonding Joining of Ceramic & Other Materials.



## **Designing with Xilinx FPGAs : using Vivado /**

Sanjay **Churiwala**

2017

x, 260 Seiten : Illustrationen, Diagramme

ISBN: 9783319424378 3319424378 9783319424385 3319424386

This book helps readers to implement their designs on Xilinx® FPGAs. The authors demonstrate how to get the greatest impact from using the Vivado® Design Suite, which delivers a SoC-strength, IP-centric and system-centric, next generation development environment that has been built from the ground up to address the productivity bottlenecks in system-level integration and implementation....



## **Sustainable economic development : green economy and green growth /**

Walter **Leal Filho**; Diana-Mihaela **Pociovalisteanu**; Abul Quasem **Al-Amin**

2017

viii, 331 pages : illustrations ; 25 cm.

ISBN: 3319450794 9783319450797

This book introduces the influence and impacts of green economy and green growth on sustainable economic development. Combining empirical and theoretical information, it provides detailed descriptions of state-of-the-art approaches, methods and initiatives from around the globe that illustrate green policies and demonstrate how green growth can be implemented on an international scale....