

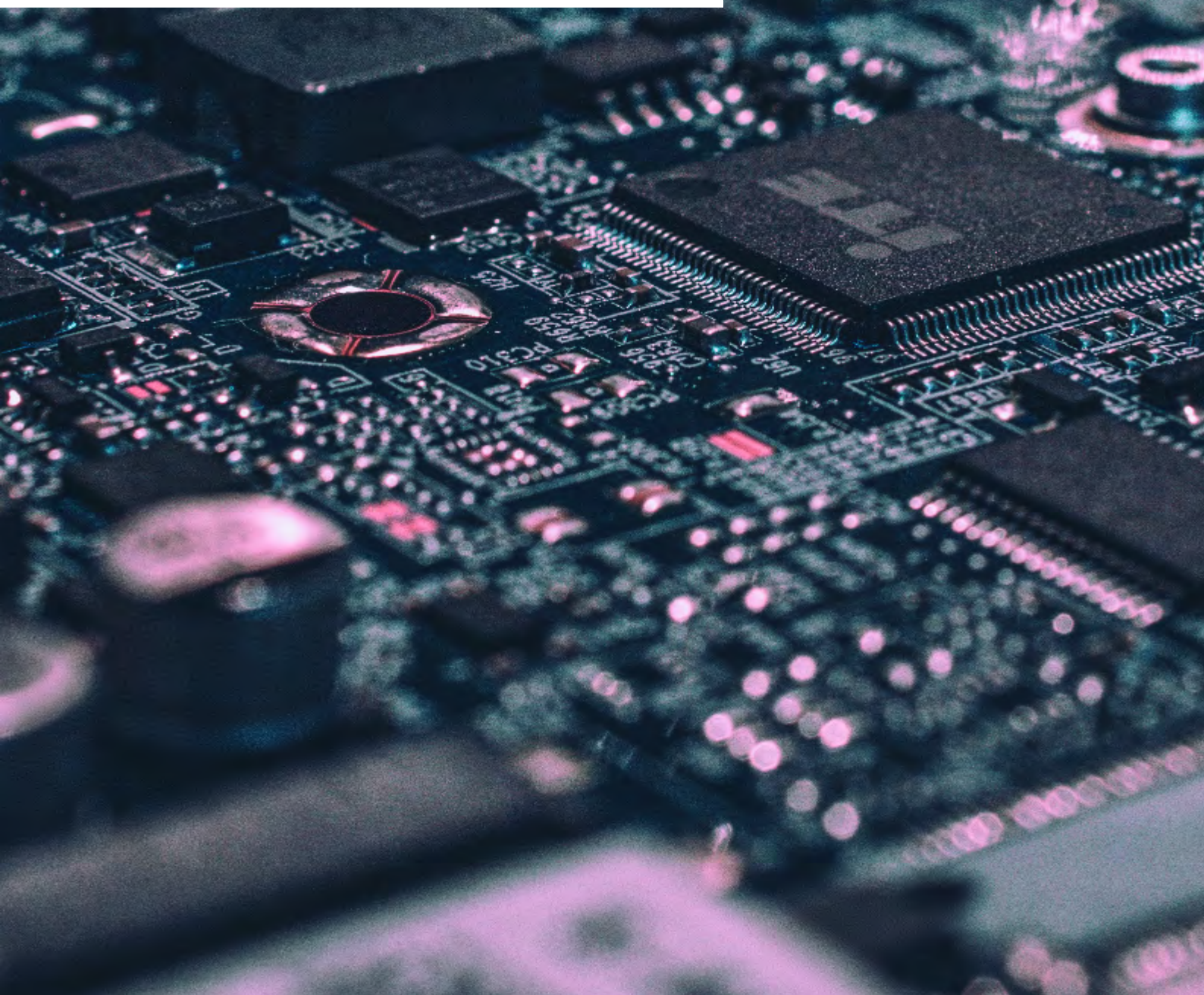
Routledge - CRC Press

Science & Technology Catalogue

January - June 2024

New and Forthcoming Titles

Chemistry, Physics, Mathematics, Statistics,
Computer Science, Software Networking & Security



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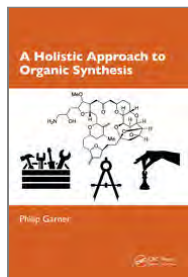
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A Holistic Approach to Organic Synthesis



Philip Garner

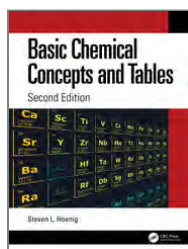
Synthesis is one of the distinguishing features of chemistry as a science. It is the synthetic chemist who uses their intimate understanding of molecular structure and properties to produce materials of great value to society. Thus, it is important for the student of chemistry to study synthesis and acquire a working knowledge that enables them to address the following question - given a specific molecular target, how does one formulate a plan for its synthesis?

CRC Press
February 2024:200
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2ND EDITION

Basic Chemical Concepts and Tables



Steven L. Hoenig

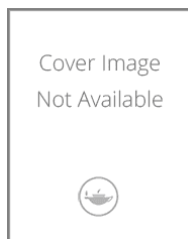
Fully revised and expanded, the second edition of Basic Chemical Concepts and Tables is written as a quick reference to the many different concepts and ideas encountered in chemistry. The volume presents important subjects in a concise format that makes it a practical resource for any reader. Subjects include general chemistry, inorganic chemistry, organic chemistry, and spectral analysis. The new edition includes updated tables that are useful as for the interpretation of ultra-violet (UV), infra-red (IR), nuclear magnetic resonance (NMR) and mass spectroscopy (MS) spectra, and expanded sections devoted to the concept of isomers and polymer structures.

CRC Press
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105TH EDITION

CRC Handbook of Chemistry and Physics



Edited by **John Rumble**

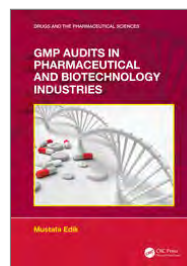
Series: CRC Handbook of Chemistry and Physics

High Quality Science requires High Quality Data! Today, more than ever, the CRC Handbook of Chemistry and Physics is critical in ensuring that researchers, educators, and students have the highest quality data for chemical compounds and physical particles. Available both in print and online, the Handbook covers 390 chemistry, physics, and related subjects organized in easy-to-find, well-organized tables. Every year, new reported data and new scientific areas are added, making the Handbook the largest comprehensive physical science data source available anywhere.

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GMP Audits in Pharmaceutical and Biotechnology Industries



Mustafa Edik

Series: Drugs and the Pharmaceutical Sciences

The fact that GMP audits in the pharmaceutical and biotechnology industries have to be evaluated and with very limited resources has created a gap in this field. The lack of trained and qualified GMP auditors is on the rise in all organizations which are required to implement FDA, EMA, MHRA, WHO, TGA, PIC/S regulations. This volume is an essential reference source for those organizations operating in the field of health and presents the basic knowledge needed to perform audits. The author also provides useful tips and a selection of samples about GMP audits that are indispensable for professionals and health inspectors working in industry and health

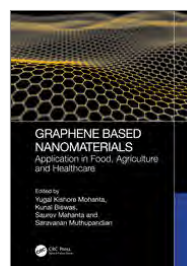
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Graphene Based Nanomaterials

Application in Food, Agriculture and Healthcare



Edited by **Yugal Kishore Mohanta, Kunal Biswas, Saurov Mahanta, Saravanan Muthupandian**

The book presents a comprehensive overview of the historical, current, and prospective application realms of nano-biotechnological research pertaining to graphene, a carbon-based nanomaterial, and its diverse forms in the fields of food and agriculture, as well as health sciences and technology. Young nanotechnologists and businesses will have access to nanobioanalytical methods.

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Handbook of Acid-Base Indicators



R.W. Sabnis

The substances which change color based on acidity or alkalinity of a solution are called acid-base indicators or pH indicators. This updated handbook provides information on over 300+ acid-base indicators and a guide for both the chemist and non-chemist in industry and in university. Listed alphabetically each entry contains General Chemical Name, Other Chemical Names, Chemical Abstract (CA) Index Name, CAS Registry Number, Merck Index Number, Chemical Structure, Chemical/Dye Class, Molecular Formula, Molecular Weight, Melting Point, Boiling Point, pH Range, Color Change at pH, pKa, Physical Form, Solubility, UV-visible Spectrum, Synthesis, Major Applications,

Safety and References.

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2ND EDITION

Handbook of Biological Therapeutic Proteins

Regulatory, Manufacturing, Testing, and Patent Issues

Cover Image
Not Available**Sarfraz Niazi**

Since 1972 when recombinant engineering was invented, over 500 therapeutic proteins have been approved. Today, biological drugs constitute almost 70% of all new drugs and are of biological origin. The first edition of this book dealt with biosimilars, the second focuses on new drugs yet limits to therapeutic proteins. The newer technologies for development represent the updated topics in the book and include repurposing, AI-driven identification of newer designs, novel expression systems and manufacturing, fast changing regulatory pathways, and legal hurdles. Discusses how to identify, develop, manufacture and take multibillion dollar products to market

in the shortest possible time.

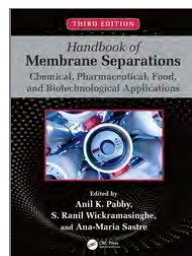
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3RD EDITION

Handbook of Membrane Separations

Chemical, Pharmaceutical, Food, and Biotechnological Applications

*Edited by* **Anil K. Pabby, S. Ranil Wickramasinghe, Ana-Maria Sastre**

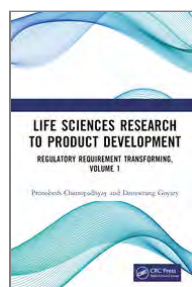
The third edition of Handbook of Membrane Separations: Chemical, Pharmaceutical, Food, and Biotechnological Applications provides a comprehensive discussion of membrane applications. Key Features: • Includes entirely new chapters on organic solvent resistant nanofiltration, membrane condensers, membrane-reactors in hydrogen production, membrane materials for haemodialysis and integrated membrane distillation • Covers the full spectrum of membrane technology and its advancements

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Life Sciences Research to Product Development

Regulatory Requirement Transforming, Volume 1

**Pronobesh Chattopadhyay, Danswring Goyary**

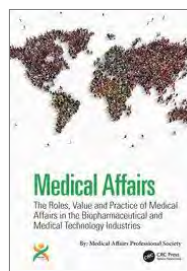
The present volume-1 of book Title "Book Title: Life Sciences Research to Product Development: Regulatory Requirement Transforming, Volume 1" discusses the procedures of drug approval and regulatory requirements that must be met according to the United States Food and Drug Administration (FDA), the European Medical Agency (EMA), and the Central Drug Standard Control Organization (CDSCO).

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Medical Affairs

The Roles, Value and Practice of Medical Affairs in the Biopharmaceutical and Medical Technology Industries

*Edited by* **Kirk V. Shepard, Charlotte Kremer, Garth Sundem**

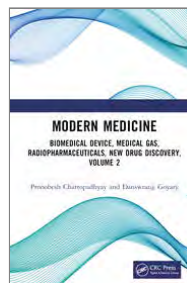
Medical affairs is one of the three strategic pillars of the pharmaceutical and medtech industries, but while clear career paths exist for commercial and research & development, there is no formal training structure for medical affairs professionals. Medical and scientific expertise is a prerequisite for entry into the function and many people transitioning into medical affairs have advanced degrees such as PhD, MD or PharmD. However, these clinical/scientific experts often lack knowledge and training in areas such as the drug development lifecycle. This primer for aspiring and early-career medical affairs professionals, equips readers with the baseline skills to excel across the roles.

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January 2024:264
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* For full contents and more information, visit: www.routledge.com/9781032449470

Modern Medicine

Biomedical Device, Medical Gas, Radiopharmaceuticals, New Drug Discovery, Volume 2

**Pronobesh Chattopadhyay, Danswring Goyary**

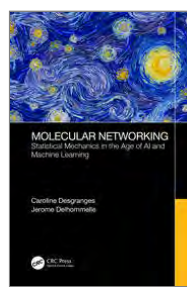
The present volume-2 of book Title "Book Title: Modern Medicine: Biomedical Device, Medical Gas, Radiopharmaceuticals, New Drug Discovery (Volume 2)" discusses the procedures of drug approval and regulatory requirements that must be met according to the United States Food and Drug Administration (FDA), the European Medical Agency (EMA), and the Central Drug Standard Control Organization (CDSCO). In the rapidly evolving landscape of modern medicine, groundbreaking innovations have emerged that are reshaping the way we approach healthcare.

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Molecular Networking

Statistical Mechanics in the Age of AI and Machine Learning

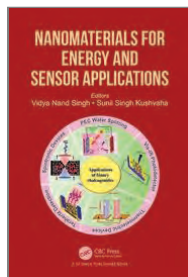
**Caroline Desgranges, Jerome Delhommelle**

The book builds on an analogy between social groups and assemblies of molecules to introduce the concepts of statistical mechanics, machine learning and data science. The idea is to bolster students' interest by proposing a new take on the topic that draws on a data analytics approach of molecules. Specifically, how the analysis of their individual features, as well as of interactions and "communication" processes can predict their properties and collective behavior, just as polling and social networking shed light on the behavior of social groups. Applications to systems at the cutting-edge of research e.g. environmental and energy applications, will be used.

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Nanomaterials for Energy and Sensor Applications



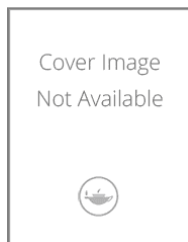
Edited by **Vidya Nand Singh, Sunil Singh Kushvaha**

Nowadays, most of the research focuses on nanomaterials in which one of the dimensions falls in the 1-100 nm range. These nanomaterials can be thin films, quantum dots, nanowires, nanopillars, and nanoclusters. Thus, nanomaterials are impacting almost all aspects of materials for various applications in emerging energy and sensor devices. The book comprises ten chapters and discusses nanomaterial applications in energy, solar cells, water splitting, sensors, etc.

CRC Press
February 2024:270
Hb: 978-1-032-39700-9: £130
eBook: 978-1-003-35096-5

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Natural Products and Medicinal Properties of Carpathian (Romanian) Plants



Edited by **Adina-Elena Segneanu**

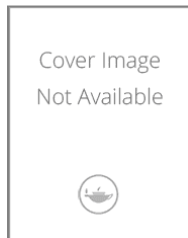
Series: *Natural Products Chemistry of Global Plants*

Romanian ethnomedicinal knowledge extends as far back as the 16th century to the Geto-Dacian priests who used medicinal plants and practiced integrated holistic medicine. The ethnomedicine continued in monasteries by monks who used cultivated medicinal plants and wild harvested plants. There are now over 800 species of medicinal plants in Romania.

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Perspectives of Quorum Quenching in New Drug Development



Edited by **Naga Raju Maddela, Venkataramana Thiriveedi, Lodi Rathna Silviya**

Antibiotic resistance in pathogen microorganisms is one of the major global concerns nowadays, especially the formation of biofilms. Quorum quenching has been practically used to control biofilm growth, and this indicates a promising hope for the development of new drugs for control of biofilm forming pathogens. This book provides a single source of information about two issues, including the biology of quorum sensing and quorum quenching and the perspectives of quorum quenching in new drug development. The text covers the latest literature from the last ten years and insights

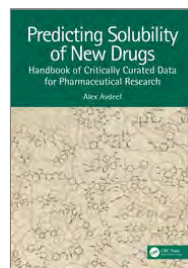
into quorum quenching and its need in medicine as an anti-virulence strategy.

CRC Press
April 2024:288
Hb: 978-1-032-28645-7: £120

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Predicting Solubility of New Drugs

Handbook of Critically Curated Data for Pharmaceutical Research



Alex Avdeef

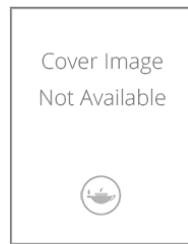
In pharmaceutical research, solubility plays a key part in the assessment of pharmacokinetic risks. Poor drug absorption, reduced efficacy, excessive metabolism and adverse reactions are frequently related to issues of drug solubility. During early discovery research at pharmaceutical companies, many thousands of molecules are considered. Most are rejected due to perceived unfavorable properties. Here the author uses the so-called Wiki-pSOTM database which forms the backbone of this unique handbook. Also discussed is the emerging class of therapeutically-promising research molecules called PROTACs (proteolysis-targeting chimeras), showing a propensity for 'undruggable' targets.

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Purification of Biotechnological Products

A Focus on Industrial Applications



Edited by **Adalberto Pessoa, Beatriz Vahan Kilikian, Paul Frederick Long**

Series: *Drugs and the Pharmaceutical Sciences*

This outstanding text focuses on providing professionals and students working in the field of pharmaceutical and biotechnology with the background necessary for development of a product or process and with the necessary rigor required by federal regulatory agencies in the pharmaceutical industry. The material will enable teachers, lecturers and professors in biotechnology to prepare courses on basic concepts and applications for purification of biotechnological

products with industrial interest.

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Refinery Products and Product Improvement Processes



James G. Speight

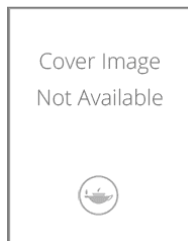
Series: *Petroleum Refining Technology Series*

An industry expert details the different approaches to product improvement processes in refining technology. The differences between the processes are presented as well as the types of feedstock that can be used for each process. Relevant process data is provided, and process operations are fully described. This practical and accessible guide is written for managers, professionals and technicians as well as graduate students transitioning into the refining industry.

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Smart Nanocarrier for Effective Drug Delivery



Edited by **Pankaj Sharma, Wasim Akram, Vinay Jain, Mukul Tailang**

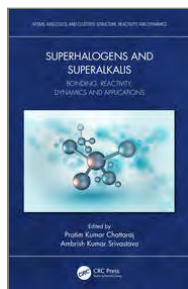
"Smart Nanocarrier for Effective Drug Delivery" is an invaluable resource for researchers, practitioners, and students in pharmaceutical sciences, nanotechnology, and drug delivery. It offers a roadmap to harnessing the potential of nanocarriers for enhancing therapeutic efficacy while minimizing adverse effects.

CRC Press
March 2024:304
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Superhalogens and Superalkalis

Bonding, Reactivity, Dynamics and Applications



Edited by **Pratim Kumar Chattaraj, Ambrish Kumar Srivastava**

Series: Atoms, Molecules, and Clusters

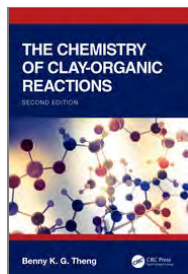
This comprehensive volume is designed as the go-to resource on the exciting and evolving topics of superhalogens, superalkalis and supersalts—special classes of atomic clusters and the acid salt that results from their interactions. The book details how these substances possess not only unusual structures, but also unique properties which can be exploited for various applications. For instance, superhalogens possess strong oxidizing capacity due to their high electron affinity.

CRC Press
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2ND EDITION

The Chemistry of Clay-Organic Reactions



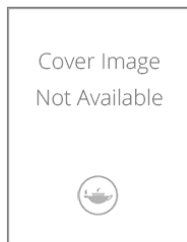
Benny K.G Theng

This book provides a comprehensive and critical summary of the vast literature on the interactions of clay minerals with organic molecules, including reaction mechanisms, and bonding modes together with their practical and industrial applications. The reader will gain an insight into the formation and properties of complexes between clay minerals and a variety of organic compounds, and the use of such complexes as sorbents and carriers of organic pollutants, pesticides, dyes, and pharmaceuticals. The book is intended for environmental and industrial chemists, organic geochemists, and soil scientists, and will appeal to academics, researchers, industry professionals, and graduate students.

CRC Press
April 2024:344
Hb: 978-0-367-53038-9: £150

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The Scientific Truth, the Whole Truth and Nothing but the Truth



John R. Helliwell

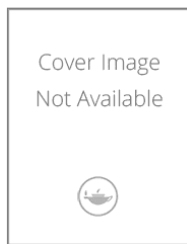
There is a limited understanding amongst scientists, students and the public about realizing trust in scientific findings. This should be a paramount objective, or is it only about career ambition? What is the role of the individual? Scientists and the public need to know more about the link between the philosophy of science and the science research methods.

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Zinc

Early Development, Applications and Emerging Trends



Edited by **Ethirajan Sukumar, Krishnamurthy Vinothkumar, Annamalai Manickavasagan**

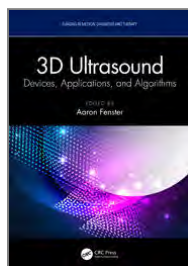
Zinc: Early Development, Applications and Emerging Trends is a comprehensive book covering various aspects of the metallic element zinc that has significant role in the growth and survival of humans. The United Nations Organization has aptly declared it as a 'Life Saving Material' since it helps in overcoming infections and strengthening immune system.

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3D Ultrasound

Devices, Applications, and Algorithms



Edited by **Aaron Fenster**

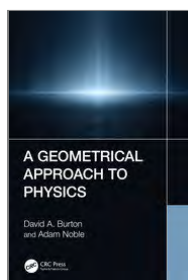
Series: *Imaging in Medical Diagnosis and Therapy*

3D ultrasound techniques have been increasingly used in diagnosis, minimally invasive image-guided interventions, and intra-operative surgical use. Today, most ultrasound system manufacturers provide 3D imaging capability as part of the systems. This edited book is divided into three sections covering 3D ultrasound devices, 3D ultrasound applications, and machine learning tools using 3D ultrasound imaging and written with physicians, engineers, and advanced graduate students in mind.

CRC Press
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A Geometrical Approach to Physics



David A. Burton, Adam Noble

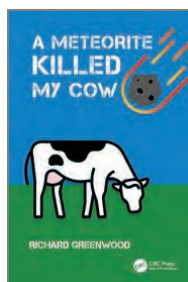
The purpose of the book is to act as a 'gateway' to more advanced books on the applications of differential geometry in physics. It will also help the reader to better appreciate modern physics research that makes use of differential geometry, and the common features that permeate the discipline as a whole.

CRC Press
March 2024:216
Hb: 978-1-032-13380-5: **£115**
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A Meteorite Killed My Cow

Stuff That Happens When Space Rocks Hit Earth



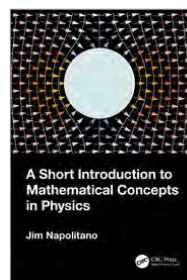
Richard Greenwood

This book introduces the reader to the fascinating and sometimes bizarre world of space rocks using a simple, clear layman-friendly style. It explains why they are so special and describes their main characteristics. The non-technical approach used throughout the book make it particularly accessible to the general public and it will be of interest to anyone looking to learn more about these cosmic visitors and the wealth of scientific information they contain.

CRC Press
March 2024:256
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A Short Introduction to Mathematical Concepts in Physics



Jim Napolitano

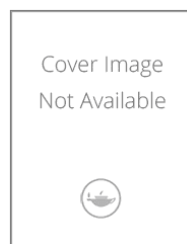
Mathematics is the language of physics and yet, mathematics is an enormous subject. This textbook provides an accessible and concise introduction to mathematical physics for undergraduate students taking a one semester course. It assumes the reader has studied a year of introductory physics and three semesters of basic calculus, including some vector calculus, but no formal training in differential equations or matrix algebra. It equips readers with the skills and foundational knowledge they need for courses that follow in classical mechanics, electromagnetism, quantum mechanics, and thermal physics.

CRC Press
January 2024:242
Hb: 978-1-032-40977-1: **£130**
Pb: 978-1-032-40430-1: **£49.99**
eBook: 978-1-003-35565-6

* For **full contents** and more information, visit: www.routledge.com/9781032404301

2ND EDITION

An Introduction to Astronomy and Astrophysics



Pankaj Jain

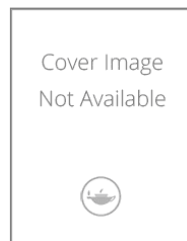
This book offers a comprehensive introduction to astronomy and astrophysics, complete with illustrative examples and illuminating homework problems. Requiring a familiarity with basic physics and mathematics, this undergraduate-level textbook teaches students how to interpret the night sky, providing them with a critical understanding of the stars and sun, solar system, extrasolar planets, stars, and galaxies.

Chapman & Hall
April 2024:392
Hb: 978-0-367-25758-3: **£89.99**

* For **full contents** and more information, visit: www.routledge.com/9780367257583

2ND EDITION

Classical Electrodynamics



Edited by **Kimball Milton, Julian Schwinger**

Series: *Frontiers in Physics*

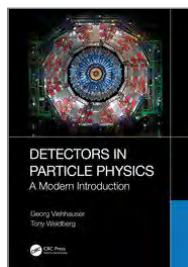
Classical Electrodynamics captures Schwinger's inimitable lecturing style, in which everything flows inexorably from what has gone before. This anniversary edition offers a refreshing update while still maintaining Schwinger's voice. The book provides the student with a thorough grounding in electrodynamics in particular, and in classical field theory in general.

CRC Press
April 2024:600
Hb: 978-0-367-50207-2: **£89.99**

* For **full contents** and more information, visit: www.routledge.com/9780367502072

Detectors in Particle Physics

A Modern Introduction



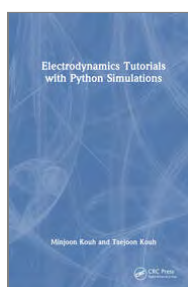
Georg Viehhauser, Tony Weidberg

This textbook provides an accessible yet comprehensive introduction to detectors in particle physics. It emphasises the core physics principles, enabling a deeper understanding of the subject for further and more advanced studies. In addition to the discussion of the underlying detector physics, another aspiration of this book is to introduce the reader to practically important aspects of particle detectors, like electronics, alignment, calibration and simulation of particle detectors. Case studies of the various applications of detectors in particle physics are provided.

CRC Press
February 2024:376
Hb: 978-1-032-24658-1: **£74.99**

* For full contents and more information, visit: www.routledge.com/9781032246581

Electrodynamics Tutorials with Python Simulations



Taejoon Kouh, Minjoon Kouh

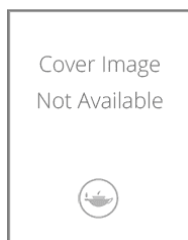
This book provides an accessible introduction to intermediate-level electrodynamics with computational approaches to complement a traditional mathematical treatment of the subject. It covers key topics in electrodynamics, such as electromagnetic fields, forces, potentials, and waves as well as Special Theory of Relativity.

CRC Press
April 2024:328
Hb: 978-1-032-49803-4: **£115**
Pb: 978-1-032-50231-1: **£44.99**

* For full contents and more information, visit: www.routledge.com/9781032502311

Emerging Energy Materials

Applications and Challenges



Edited by **Govind Nair, H Nagabhushana, Nirupama Dhoble, Sanjay J. Dhoble**

Series: *Series in Materials Science and Engineering*

Emerging Energy Materials: Applications and Challenges presents an outline for materials used in progressive energy systems. It tackles their use in energy storage across solar, bio, geothermal, wind, fossil, hydrogen, nuclear, and thermal energy. Chapters are dedicated to forthcoming energy reaping systems. This book adds to the current literature by often highlighting concerns that are frequently overlooked in energy materials textbooks. Being aware of these

challenges and possible solutions is critical for advancing the field of energy material technologies. This book is useful for researchers looking to improve their understanding of emerging energy materials.

CRC Press
March 2024:280
Hb: 978-1-032-31209-5: **£99.99**

* For full contents and more information, visit: www.routledge.com/9781032312095

4TH EDITION

Finn's Thermal Physics



Andrew Rex, C.B.P. Finn

While maintaining the style of the original work, the book now covers statistical mechanics and incorporates worked examples systematically throughout the text. It also covers more problems, and incorporates some essential updates, such as discussions on superconductivity, magnetism, Bose-Einstein condensation, and climate change.

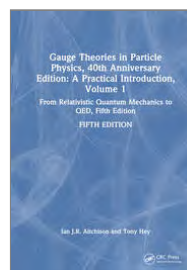
CRC Press
April 2024:440
Hb: 978-1-032-28903-8: **£132.99**
Pb: 978-1-032-28982-3: **£52.99**

* For full contents and more information, visit: www.routledge.com/9781032289823

5TH EDITION

Gauge Theories in Particle Physics, 40th Anniversary Edition: A Practical Introduction, Volume 1

From Relativistic Quantum Mechanics to QED, Fifth Edition



Ian J.R. Aitchison, Anthony J.G. Hey

The fifth edition of this well-established, highly regarded two-volume set continues to provide a fundamental introduction to advanced particle physics while incorporating substantial new experimental results, especially in the areas of Higgs and top sector physics, as well as CP violation and neutrino oscillations. It offers an accessible and practical introduction to the three gauge theories comprising the Standard Model of particle physics: quantum electrodynamics (QED), quantum chromodynamics (QCD), and the Glashow-Salam-Weinberg (GSW) electroweak theory.

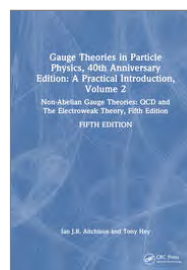
CRC Press
April 2024:384
Hb: 978-1-032-53171-7: **£140**
Pb: 978-1-032-53174-8: **£52.99**

* For full contents and more information, visit: www.routledge.com/9781032531748

5TH EDITION

Gauge Theories in Particle Physics, 40th Anniversary Edition: A Practical Introduction, Volume 2

Non-Abelian Gauge Theories: QCD and The Electroweak Theory, Fifth Edition



Ian J.R. Aitchison, Anthony J.G. Hey

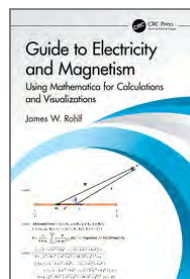
The fifth edition of this well-established, highly regarded two-volume set continues to provide a fundamental introduction to advanced particle physics while incorporating substantial new experimental results, especially in the areas of Higgs and top sector physics, as well as CP violation and neutrino oscillations. It offers an accessible and practical introduction to the three gauge theories comprising the Standard Model of particle physics: quantum electrodynamics (QED), quantum chromodynamics (QCD), and the Glashow-Salam-Weinberg (GSW) electroweak theory.

CRC Press
April 2024:472
Hb: 978-1-032-53170-0: **£140**
Pb: 978-1-032-53361-2: **£52.99**

* For full contents and more information, visit: www.routledge.com/9781032533612

Guide to Electricity and Magnetism

Using Mathematica for Calculations and Visualizations



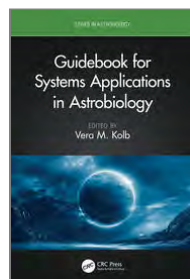
James W. Rohlff

This is a "how to guide" for a calculus-based introductory course in electricity and magnetism. Students taking the subject at an intermediate or advanced level may also find it to be a useful reference. The calculations are performed in Mathematica, and stress graphical visualization, units, and numerical answers. The techniques show the student how to learn the physics without being hung up on the math.

CRC Press
March 2024:240
Hb: 978-1-032-64667-1: £110
Pb: 978-1-032-64085-3: £42.99

* For full contents and more information, visit: www.routledge.com/9781032640853

Guidebook for Systems Applications in Astrobiology



Edited by **Vera M. Kolb**

Series: Series in Astrobiology

This book features chapters from experts across the field of astrobiology who have applied the systems approach. It will be a valuable guide for astrobiology students at the advanced undergraduate and graduate level, in addition to researchers in the field, both in academia and the space industry.

CRC Press
December 2023:348
Hb: 978-1-032-27821-6: £99.99

* For full contents and more information, visit: www.routledge.com/9781032278216

Guidebook to Real Time Electron Dynamics

Irradiation Dynamics From Molecules to Nanoclusters



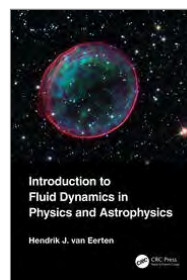
Jorge Kohanoff, Paul-Gerhard Reinhard, Lorenzo Stella, Eric Suraud

This practical book presents an overview of the various approaches developed to understand the dynamics of electronic systems in physics and chemistry. It also illustrates typical application examples, namely atoms, molecules, and clusters such as nano objects.

CRC Press
February 2024:262
Hb: 978-0-367-65126-8: £115

* For full contents and more information, visit: www.routledge.com/9780367651268

Introduction to Fluid Dynamics in Physics and Astrophysics



Hendrik Jan van Eerten

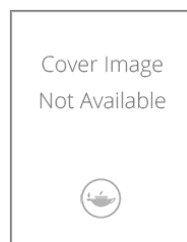
This textbook provides an accessible and self-contained introduction to the physics behind fluid dynamics; exploring the laws of nature describing three out of four fundamental states of matter (liquids, gases, and plasmas). Based on years of teaching of fluid dynamics theory and computation at advanced undergraduate level, it provides readers with the tools to understand and model fluid dynamical systems across a wide range of applications, from dense liquids to dilute space plasmas.

CRC Press
January 2024:326
Hb: 978-0-367-55777-5: £150
Pb: 978-0-367-55235-0: £59.99
eBook: 978-1-003-09508-8

* For full contents and more information, visit: www.routledge.com/9780367552350

Introduction to Multidisciplinary Science with Artificial Intelligence

Geodesy, Geotherms, Quantum Entanglement, and Spectroscopy



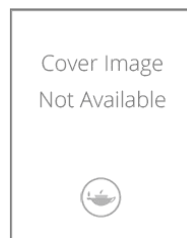
Luc Thomas Ikelle

Technological developments and advances in scientific research have enabled the cross-fertilization of scientific disciplines. This book aims to provide readers with the tools necessary to address scientific and technological challenges in astronomy and space exploration.

CRC Press
May 2024:736
Hb: 978-1-032-61779-4: £120

* For full contents and more information, visit: www.routledge.com/9781032617794

Introduction to Simulations of Semiconductor Lasers



Marek Wartak

The book begins with explaining the physics and fundamental characteristics behind semiconductor lasers and their applications. It presumes little prior knowledge, such that only a familiarity with the basics of electromagnetism and quantum mechanics is required. The book transitions from textbook explanations, equations, and formulas to ready-to-run numeric codes that enable the visualization of concepts and simulation studies.

CRC Press
March 2024:376
Hb: 978-1-032-20904-3: £99.99

* For full contents and more information, visit: www.routledge.com/9781032209043

Invisible Solar System



Martin Connors

When we look at a starry night sky, we are looking out through vast invisible expanses of our own Solar System. The planets appearing as a bright specks have been revealed as worlds by space missions.

CRC Press

February 2024:320

Hb: 978-0-367-76851-5: £115

Pb: 978-1-032-58778-3: £44.99

* For full contents and more information, visit: www.routledge.com/9781032587783

Mathematical Physics using Python

Applications in Physics and Engineering



Vasilis Pagonis, Christopher Wayne Kulp

This advanced undergraduate textbook presents a new approach to teaching mathematical methods for scientists and engineers. It provides a practical, pedagogical introduction to utilizing Python in Mathematical and Computational Methods courses. Both analytical and computational examples are integrated from its start.

CRC Press

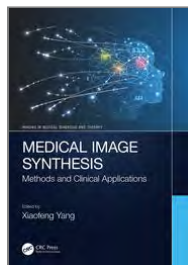
May 2024:520

Hb: 978-1-032-27836-0: £74.99

* For full contents and more information, visit: www.routledge.com/9781032278360

Medical Image Synthesis

Methods and Clinical Applications



Edited by Xiaofeng Yang

Series: Imaging in Medical Diagnosis and Therapy

Image synthesis across and within medical imaging modalities is an active area of research with broad applications in radiology and radiation oncology. This book covers the principles and methods of medical image synthesis, along with state-of-the-art research. The benefits of medical image synthesis have sparked growing interest in a number of advanced clinical applications, such as magnetic resonance imaging (MRI)-only radiation therapy treatment planning and positron emission tomography (PET)/MRI scanning. This book will be a comprehensive and exciting resource for undergraduates, graduates, researchers, and practitioners.

CRC Press

February 2024:318

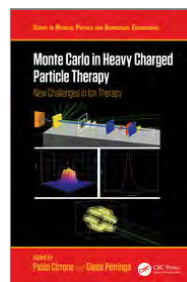
Hb: 978-1-032-13388-1: £190

Pb: 978-1-032-15284-4: £74.99

* For full contents and more information, visit: www.routledge.com/9781032152844

Monte Carlo in Heavy Charged Particle Therapy

New Challenges in Ion Therapy



Edited by Pablo Cirrone, Giada Petringa

Series: Series in Medical Physics and Biomedical Engineering

Each book chapter is dedicated to a different sub-discipline, including multi-ion treatments, flash-radiotherapy, laser-accelerated beams, nanoparticles effects, binary reactions to enhance radiobiology, and space-related issues.

CRC Press

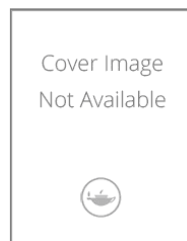
January 2024:352

Hb: 978-0-367-89716-1: £120

* For full contents and more information, visit: www.routledge.com/9780367897161

Numerical Methods

Classical and Advanced Topics



Shanmuganathan Rajasekar

This book presents a pedagogical treatment of a range of numerical methods to suit the needs of undergraduate and postgraduate students, and teachers and researchers in physics, mathematics, and engineering. For each method, the derivation of the formula/algorithm, error analysis, case studies, applications in science and engineering and the special features are covered. A detailed presentation of solving time-dependent Schrödinger equation and nonlinear wave equations, along with the Monte Carlo techniques will aid in students' understanding of several physical phenomena including tunnelling, elastic collision of nonlinear waves, and diffusion of neutrons through simulation study.

CRC Press

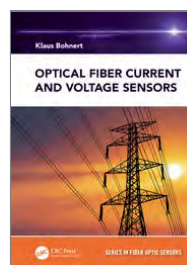
April 2024:560

Hb: 978-1-032-63894-2: £99.99

Pb: 978-1-032-64991-7: £44.99

* For full contents and more information, visit: www.routledge.com/9781032649917

Optical Fiber Current and Voltage Sensors



Klaus Bohnert

Series: Series in Fiber Optic Sensors

Optical Fiber Current and Voltage Sensors is the first book to provide a complete, comprehensive and up to date treatment of the domain of fiber optic and polarimetric sensors, covering fundamental operating principles, characteristics, and construction.

CRC Press

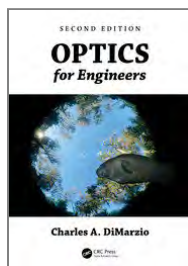
February 2024:216

Hb: 978-0-367-55584-9: £99.99

* For full contents and more information, visit: www.routledge.com/9780367555849

2ND EDITION

Optics for Engineers



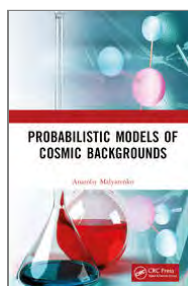
Charles A. DiMarzio

This textbook provides an accessible introduction to the fundamentals of geometric and physical optics as they relate to practical problems encountered by engineers and researchers in designing and analyzing optical systems. In this updated edition, the author focuses on topics that are critical to understanding how the basic principles of optics affect design decisions. In addition to information on breadboarding experiments and prototypes, the new edition also expands its coverage of holography and discusses important state-of-the-art issues in modern optics.

CRC Press
March 2024:576
Hb: 978-1-032-65040-1: £200
Pb: 978-1-482-26323-7: £74.99

* For full contents and more information, visit: www.routledge.com/9781482263237

Probabilistic Models of Cosmic Backgrounds



Anatoliy Malyarenko

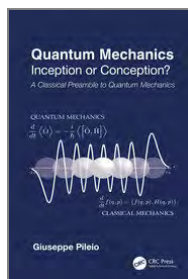
Combining research methods from various areas of mathematics and physics, Probabilistic Models of Cosmic Backgrounds describes the isotropic random sections of certain fiber bundles and their applications to creating rigorous mathematical models of both discovered and hypothetical cosmic backgrounds.

CRC Press
April 2024:296
Hb: 978-1-032-38198-5: £150

* For full contents and more information, visit: www.routledge.com/9781032381985

Quantum Mechanics

Inception or Conception? A Classical Preamble to Quantum Mechanics



Giuseppe Pileio

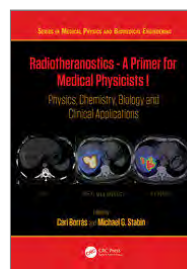
Embarking on a journey into the realm of quantum mechanics can be a daunting task for anyone. Its puzzling mathematics and bewildering predictions often leave individuals feeling confused and disheartened. But what if there was a different approach—one aimed to cultivate an understanding of quantum mechanics from its very foundations? This is the ambition of this book.

CRC Press
February 2024:112
Hb: 978-1-032-58430-0: £130

* For full contents and more information, visit: www.routledge.com/9781032584300

Radiotheranostics - A Primer for Medical Physicists I

Physics, Chemistry, Biology and Clinical Applications



Edited by **Cari Borrás, Michael G. Stabin**

Series: Series in Medical Physics and Biomedical Engineering

This book covers scientific, clinical, and educational aspects of radiotheranostics in cancer control. Setting the framework, the first volume defines radiotheranostics and describes the history of radionuclide therapy and theranostics, and the biology of cancer. It examines the clinical applications of unconjugated radionuclides, such as ^{131}I and ^{223}Ra , and of radionuclide-conjugated cancer-specific vectors: peptides, small molecules, antibodies, and nanoparticles; introduces clinical trials and drug development; and reviews epidemiological studies and the adverse effects of radionuclide therapy – both, radiation injuries and chemical toxicity.

CRC Press
February 2024:228
Hb: 978-1-032-13897-8: £170

* For full contents and more information, visit: www.routledge.com/9781032138978

Super-Resolution Microscopy for Material Science



Edited by **Lorenzo Albertazzi, Peter Zijlstra**

This book describes the theory, principles, and practice of super-resolution microscopy in the field of materials science and nanotechnology. There is a growing interest in the applications of SRM beyond biology as new synthetic materials, such as nanoscale sensors and catalysts, nanostructured materials, functional polymers, and nanoparticles, have nanoscopic features that are challenging to visualize with traditional imaging methods.

CRC Press
March 2024:288
Hb: 978-1-032-10367-9: £99.99

* For full contents and more information, visit: www.routledge.com/9781032103679

Writing In-House Medical Device Software in Compliance with EU, UK, and US Regulations



Philip S. Cosgriff, Matthew Memmott

This book is a comprehensive guide to producing medical software for routine clinical use. It is a practical guidebook for medical professionals developing software to ensure compliance with medical device regulations for software products intended to be sold commercially, shared with healthcare colleagues in other hospitals, or simply used in-house. It compares the latest regulatory requirements in different global territories, including the most recent EU regulations as well as current UK and US regulations.

CRC Press
March 2024:272
Hb: 978-1-032-29348-6: £89.99

Pb: 978-1-032-29350-9: £34.99
* For full contents and more information, visit: www.routledge.com/9781032293509

2ND EDITION

XAFS for Everyone

Cover Image

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**Scott Calvin**

XAFS for Everyone provides a practical, thorough guide to x-ray absorption fine-structure (XAFS) spectroscopy for both novices and seasoned practitioners from a range of disciplines. This second edition now includes chapters on spatial and temporal resolution, alternative measurement modes including resonant inelastic x-ray scattering (RIXS) and high-energy resolution fluorescence detection (HERFD), and an expanded chapter on experimental design. In addition, this edition adds new sections on wavelet transforms, blind source separation, free electron lasers, and theoretical XANES standards, as well as three new case studies.

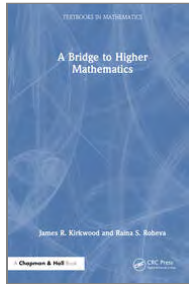
CRC Press

May 2024: 336

Hb: 978-1-032-74548-0: £82.99

* For full contents and more information, visit: www.routledge.com/9781032745480

A Bridge to Higher Mathematics



James R. Kirkwood, Raina S. Robeva

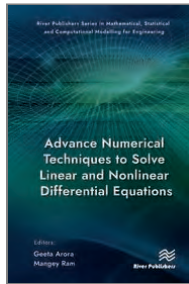
Series: Textbooks in Mathematics

The goal of this unique text is to provide an "experience" that would facilitate a better transition for mathematics majors to the advanced proof-based courses required for their major. If you "love mathematics, but I hate proofs" this book is for you. Example-based courses such as introductory Calculus transition somewhat abruptly, and without a warning label, to proof-based courses, and may leave students with the unpleasant feeling that a subject they loved has turned into material they find hard to understand.

Chapman & Hall
June 2024:168
Hb: 978-1-032-62385-6: **£94.99**
Pb: 978-1-032-61184-6: **£38.99**

* For **full contents** and more information, visit: www.routledge.com/9781032611846

Advance Numerical Techniques to Solve Linear and Nonlinear Differential Equations



Edited by **Geeta Arora, Mangey Ram**

Series: River Publishers Series in Mathematical, Statistical and Computational Modelling for Engineering

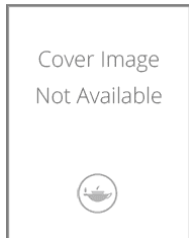
This book provides these real-world examples, explores research challenges in numerical treatment, and demonstrates how to create new numerical methods for resolving problems. Theories and practical applications in the sciences and engineering are also discussed. Students of engineering and applied mathematics, as well as researchers and engineers who use computers to solve problems numerically or oversee those who do, will find this book focusing on advance numerical techniques to solve linear and nonlinear differential equations useful.

River Publishers
January 2024:170
Hb: 978-8-770-22987-6: **£94.99**

* For **full contents** and more information, visit: www.routledge.com/9788770229876

Classical Clifford Algebras

Operator-Algebraic and Free-Probabilistic Approaches



Ilwoo Cho

Series: Chapman & Hall/CRC Monographs and Research Notes in Mathematics

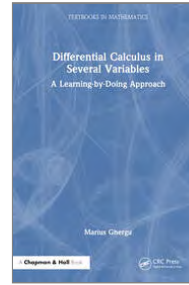
Classical Clifford Algebras: Operator-Algebraic and Free-Probabilistic Approaches offers novel insights through operator-algebraic and free-probabilistic models. By employing these innovative methods, the author sheds new light on the intrinsic connections between Clifford algebras and various mathematical domains. This monograph should be an essential addition to the library of any researchers interested in Clifford Algebras or Algebraic Geometry more widely.

Chapman & Hall
April 2024:144
Hb: 978-1-032-63711-2: **£150**

* For **full contents** and more information, visit: www.routledge.com/9781032637112

Differential Calculus in Several Variables

A Learning-by-Doing Approach



Marius Ghergu

Series: Textbooks in Mathematics

The aim of this book is to lead the reader out from the ordinary routine of computing and calculating by engaging in a more dynamic process of learning.

Chapman & Hall
February 2024:324
Hb: 978-1-032-58339-6: **£130**
Pb: 978-1-032-58254-2: **£49.99**

* For **full contents** and more information, visit: www.routledge.com/9781032582542

Electronic String Art

Rhythmic Mathematics



Stephen Erfle

Series: AK Peters/CRC Recreational Mathematics Series

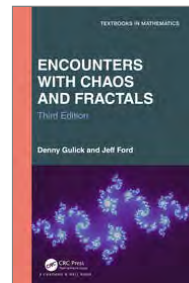
This book invites readers to use the author's digital resources to play with the parameters inherent in string art models, while offering concise, accessible explanations of the underlying mathematical principles regarding how the images were created and how they change. Readers will have the opportunity to create visually beautiful works of art while learning concepts from geometry, number theory, and modular arithmetic from approximately 175 short-independent sections.

A K Peters/CRC Press
January 2024:384
Hb: 978-1-032-51517-5: **£94.99**
Pb: 978-1-032-51273-0: **£36.99**

* For **full contents** and more information, visit: www.routledge.com/9781032512730

3RD EDITION

Encounters with Chaos and Fractals



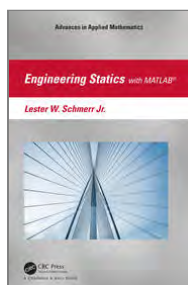
Denny Gulick, Jeff Ford

Series: Textbooks in Mathematics

Chapman & Hall
February 2024:432
Hb: 978-1-032-67786-6: **£74.99**

* For **full contents** and more information, visit: www.routledge.com/9781032677866

Engineering Statics with MATLAB®



Lester W. Schmerr Jr.

Series: Advances in Applied Mathematics

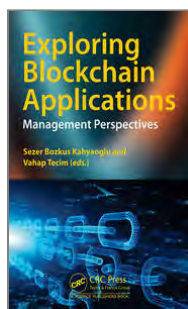
This text makes use of symbolic algebra and vector-matrix algebra to demonstrate a new approach to learning statics. Symbolic solutions are obtained, together with the types of solutions covered in other texts, so that students can see the advantages of this new approach. This innovative text is an extension of second-generation vector Statics courses to a new, third generation matrix-vector Statics course, a course that addresses deformable as well as rigid bodies and employs MATLAB®.

Chapman & Hall
February 2024:160
Hb: 978-1-032-43700-2: **£89.99**

* For **full contents** and more information, visit: www.routledge.com/9781032437002

Exploring Blockchain Applications

Management Perspectives



Edited by Sezer Bozkus Kahyaoglu, Vahap Tecim

The book reviews the development process of blockchain algorithms and examples of their applications in different sectors. The opportunities and challenges of blockchain implementations that arise in making technological innovations usable in corporate structures are discussed. In this respect, it aims to deal with both the conceptual framework and the real challenges and opportunities encountered in practice in blockchain applications. As such, it presents suggestions on practical blockchain applications to the readers on a scientific basis.

CRC Press
May 2024:304
Hb: 978-1-032-48539-3: **£115**

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Exploring Operations Research with R



Jim Duggan

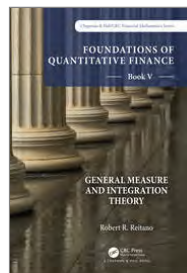
Series: Chapman & Hall/CRC Series in Operations Research

This book shows how the R Programming language can be a valuable tool – and way of thinking – that can be successfully applied to the field of operations research (OR). The core aim of the book is to provide a self-contained introduction to R (both Base R and the tidyverse) and show how this knowledge can be applied to a range of OR challenges in the domains of public health, infectious diseases, and energy generation, and so provide a platform to develop actionable insights to support decision making.

Chapman & Hall
April 2024:400
Hb: 978-1-032-27754-7: **£150**
Pb: 978-1-032-27716-5: **£59.99**

* For **full contents** and more information, visit: www.routledge.com/9781032277165

Foundations of Quantitative Finance: Book V General Measure and Integration Theory



Robert R. Reitano

Series: Chapman and Hall/CRC Financial Mathematics Series

Every finance professional wants and needs a competitive edge. Published under the collective title of Foundations of Quantitative Finance, this set of ten books develops the advanced topics in mathematics that finance professionals need to advance their careers. These books expand the theory most do not learn in graduate finance programs, or in most financial mathematics undergraduate and graduate courses.

Chapman & Hall
February 2024:208
Hb: 978-1-032-20651-6: **£150**
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Fractional Calculus for Skeptics I

The Fractal Paradigm



Bruce J. West, YangQuan Chen

Series: Fractional Order Thinking in Exploring the Frontiers of STEM

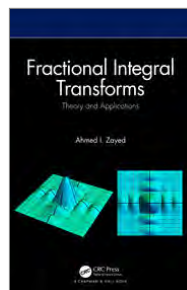
This book is the first of its kind on fractional calculus (FC), dedicated to advocating for FC in STEM education and research. The book will appeal to students and researchers in all STEM-related fields, engineering, physics, biology and biomedicine, climate change, big data, machine learning, etc. It is also suitable for general readers interested in these fields.

CRC Press
May 2024:160
Hb: 978-1-032-74155-0: **£170**

* For **full contents** and more information, visit: www.routledge.com/9781032741550

Fractional Integral Transforms

Theory and Applications



Ahmed I. Zayed

This book presents over twenty-five integral transforms, many of which have never before been collected in one single volume. This book provides an overview of the theory of fractional integral transforms with examples of such transforms, before delving deeper into the study of important fractional transforms, including the fractional Fourier transform. Applications of fractional integral transforms in signal processing and optics are highlighted. The book's format has been designed to make it easy for readers to extract the essential information they need to learn about the fundamental properties of each transform. Supporting proofs and explanations are given throughout.

Chapman & Hall
March 2024:284
Hb: 978-0-367-54387-7: **£115**

* For **full contents** and more information, visit: www.routledge.com/9780367543877

Fundamentals of Abstract Algebra



Mark J. DeBonis

Series: Textbooks in Mathematics

This is a primary textbook for a one year first course in Abstract Algebra, but it has much more to offer besides this. The book is full of opportunities for further, deeper reading, including explorations of interesting applications and more advanced topics, such as Galois theory. Replete with exercises and examples, the book is geared towards careful pedagogy and accessibility, and requires only minimal prerequisites. The book includes a primer on some basic mathematical concepts that will be useful for readers to understand, and in this sense the book is self-contained.

Chapman & Hall

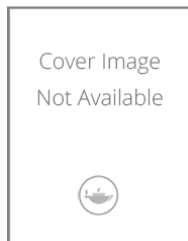
April 2024:314

Hb: 978-1-032-36701-9: £150

Pb: 978-1-032-37091-0: £59.99

* For full contents and more information, visit: www.routledge.com/9781032370910

General Quantum Numerical Analysis



Svetlin G. Georgiev, Khaled Zennir

Series: Advances in Applied Mathematics

This book is focused on the qualitative theory of general quantum calculus, the modern name for the investigation of calculus without limits. It centers on designing, analysing and applying computational techniques for general quantum differential equations. The quantum calculus or q-calculus began with FH Jackson in the early twentieth century, but this kind of calculus had already been worked out by Euler and Jacobi. Recently it arose interest due to high demand of mathematics that models quantum computing and in the connection between mathematics and physics.

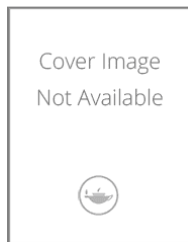
Chapman & Hall

May 2024:378

Hb: 978-1-032-74150-5: £110

* For full contents and more information, visit: www.routledge.com/9781032741505

Graph Theory and Decomposition



Jomon K Sebastian, Sudev Naduvath, Joseph Varghese Kureethara

The book Graph Theory and Decomposition covers major areas of the decomposition of graphs. It is a three-part reference book with nine chapters that is aimed at enthusiasts as well as research scholars. It comprehends historical evolution and basic terminologies. It deliberates on decompositions into cyclic graphs, such as cycle, digraph, and K4-e decompositions.

Chapman & Hall

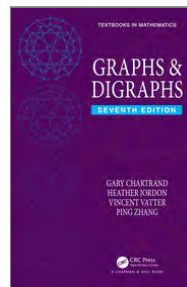
April 2024:200

Hb: 978-1-032-48923-0: £140

* For full contents and more information, visit: www.routledge.com/9781032489230

7TH EDITION

Graphs & Digraphs



Gary Chartrand, Heather Jordon, Vincent Vatter, Ping Zhang

Series: Textbooks in Mathematics

Graphs & Digraphs masterfully employs student-friendly exposition, clear proofs, abundant examples, and numerous exercises to provide an essential understanding of the concepts, theorems, history, and applications of graph theory. This classic text, widely popular among students and instructor alike for decades, is thoroughly streamlined in this new, seventh edition, to present a text consistent with contemporary expectations.

Chapman & Hall

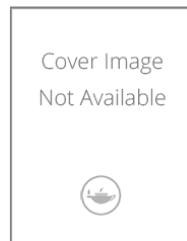
January 2024:364

Hb: 978-1-032-13340-9: £120

Pb: 978-1-032-60698-9: £52.99

* For full contents and more information, visit: www.routledge.com/9781032606989

Introduction to Combinatorial Methods in Geometry



Alexander Kharazishvili

This book offers an introduction to some combinatorial (also, set-theoretical) approaches and methods in geometry of the Euclidean space \mathbb{R}^n . The topics discussed in the manuscript are due to the field of combinatorial and convex geometry. The material presented is based on the lecture course given by the author. The choice of material serves to demonstrate the unity of mathematics and variety of unexpected interrelations between distinct mathematical branches.

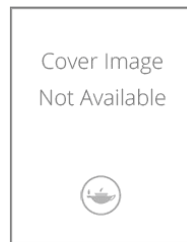
Chapman & Hall

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Intuitive Axiomatic Set Theory



José L García

Series: Textbooks in Mathematics

Set theory can be rigorously and profitably studied through an intuitive approach, thus independently of formal logic. Nearly every branch of Mathematics depends upon set theory and thus knowledge of set theory is of interest to every mathematician. This book is addressed to all mathematicians and tries to convince them that this intuitive approach to axiomatic set theory is not only possible, but also valuable.

Chapman & Hall

April 2024:368

Hb: 978-1-032-58120-0: £74.99

* For full contents and more information, visit: www.routledge.com/9781032581200

Linear Algebra for Earth Sciences

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J. Douglas Walker, Noah M. McLean

This book is written for undergraduate and graduate students in Earth and Environmental sciences. It is intended to give students enough background in linear algebra to work with systems of equations and data in geology, hydrology, geophysics, or whatever part of the Earth Sciences they engage with. The book does not presuppose any extensive prior knowledge of linear algebra. Instead, the book builds students up from a low base to a working understanding of the subject that they can apply to their work, using many familiar examples in the geosciences.

Chapman & Hall
April 2024:332
Hb: 978-1-032-55594-2: **£89.99**

* For **full contents** and more information, visit: www.routledge.com/9781032555942

Mathematical Methods for Life Sciences



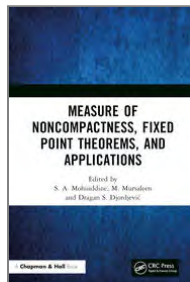
Cinzia Bisi, Rita Fioresi

Mathematical Methods for Life Sciences introduces calculus, and other key mathematical methods, to students from applied sciences (biology, biotechnology, chemistry, pharmacology, material science, etc). Special attention is paid to real-world applications, and for every concept, many concrete examples are provided. The book does not aim to enable students to prove theorems and construct elaborate proofs, but rather to leave students with a clear understanding of the practical mathematics behind the power of optimization, dynamical systems, and all the predictive tools these theories give rise to.

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Hb: 978-1-032-36229-8: **£130**
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Measure of Noncompactness, Fixed Point Theorems, and Applications



Edited by **S. A. Mohiuddine, M. Mursaleen, Dragan S. Djordjević**

This edited volume presents recent research in the theory of the measure of noncompactness and its applications in pure and applied mathematics. Discusses topics such as measures of noncompactness in the space of regulated functions, application in nonlinear infinite systems of fractional differential equations, coupled fixed point theorem, etc. For academic researchers in mathematics.

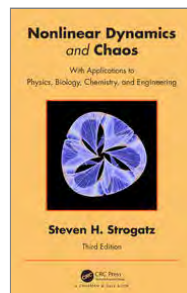
Chapman & Hall
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Hb: 978-1-032-56009-0: **£120**

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3RD EDITION

Nonlinear Dynamics and Chaos

With Applications to Physics, Biology, Chemistry, and Engineering



Steven H Strogatz

The goal of this Third Edition is the same as previous editions: to provide a good foundation for anyone who'd like to learn about nonlinear dynamics and chaos from an applied perspective. Changes to this edition include substantial exercises about conceptual models of climate change, an updated treatment of the SIR model of epidemics, and amendments (based on recent research) about the Selkov model of oscillatory glycolysis. Equations, diagrams, and explanations have been reconsidered and often revised. There are also about 50 new references, many from the recent literature.

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Hb: 978-1-032-70789-1: **£175**
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Normal Families and Normal Functions

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Peter V. Dovbush, Steven G. Krantz

This book centers on normal families of holomorphic and meromorphic functions and also normal functions. The authors treat one complex variable, several complex variables, and infinitely many complex variables (i.e., Hilbert space). The theory of normal families is more than 100 years old. It has played a seminal role in the function theory of complex variables. It was used in the first rigorous proof of the Riemann mapping theorem. It is used to study automorphism groups of domains, geometric analysis, and partial differential equations.

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Perturbed Functional Iterations

Matrix Free Large-Scale Nonlinear System Solvers in Applied Science with An Introduction to D-Mapping

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Suhrit Dey

Series: Chapman & Hall/CRC Monographs and Research Notes in Mathematics

Perturbed Functional Iterations is a large-scale nonlinear system solver. Nature is abundant with events simulated mathematically by nonlinear systems of equations and inequalities. These we call nonlinear models. Often, they are ill conditioned, meaning small changes in data causing huge changes in the output. PFI, which was earlier called PIS (Perturbed Iterative Scheme) is a numerical method to solve nonlinear systems of equations in multidimensional space. This book will guide readers with the proper use of PFI, both in

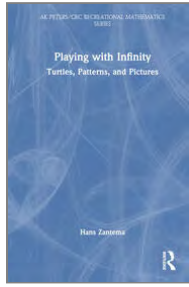
theoretical and practical settings.

Chapman & Hall
May 2024:286
Hb: 978-1-032-35029-5: **£150**

* For **full contents** and more information, visit: www.routledge.com/9781032350295

Playing with Infinity

Turtles, Patterns, and Pictures



Hans Zantema

Series: AK Peters/CRC Recreational Mathematics Series

This is a book about infinity — specifically the infinity of numbers and sequences. Amazing properties arise, for instance, some kinds of infinity are argued to be greater than others. Along the way the author will demonstrate how infinity can be made to create beautiful 'art', guided by the development of underlying mathematics. This book will provide a fascinating read for anyone interested in number theory, infinity, math art, and/or generative art, and could be used a valuable supplement to any course on these topics.

AK Peters/CRC Press
April 2024:256
Hb: 978-1-032-73800-0: **£74.99**
Pb: 978-1-032-70610-8: **£29.99**

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Polyadic Groups



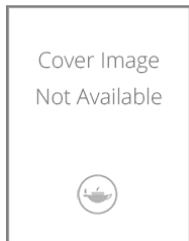
Wieslaw A. Dudek

This book provides a general, unified approach to the theory of polyadic groups, their normal subgroups and matrix representations. The author focuses on those properties of polyadic groups which are not present in the binary case. These properties indicate a strong relationship between polyadic groups and various group-like algebras, as well as ternary Hopf algebras and n-Lie algebras that are widely used in theoretical physics.

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* For full contents and more information, visit: www.routledge.com/9781032697246

Set, Measure and Probability Theory



Marcelo S. Alencar, Raphael T. Alencar

Series: River Publishers Series in Mathematical, Statistical and Computational Modelling for Engineering

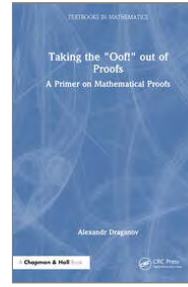
This book introduces the basic concepts of set theory, measure theory, the axiomatic theory of probability, random variables and multidimensional random variables, functions of random variables, convergence theorems, laws of large numbers, and fundamental inequalities. This book also presents an account of the historical evolution of probability theory as a mathematical discipline. Each chapter presents a short biography of the important scientists who helped develop the subject.

River Publishers
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Taking the "Oof!" out of Proofs

A Primer on Mathematical Proofs



Alexandr Draganov

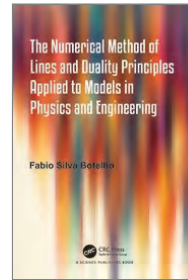
Series: Textbooks in Mathematics

This book introduces readers to the art of doing mathematical proofs. Proofs are the glue that holds mathematics together. They make connections between math concepts and show why things work the way they do. This book teaches the art of proofs using familiar high school concepts, such as numbers, polynomials, functions, and trigonometry. It retells math as a story, where the next chapter follows from the previous one.

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Pb: 978-1-032-59598-6: **£44.99**

* For full contents and more information, visit: www.routledge.com/9781032595986

The Numerical Method of Lines and Duality Principles Applied to Models in Physics and Engineering



Fabio Silva Botelho

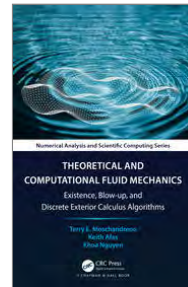
The book includes the theory and applications of generalization of the numerical method of lines. It is meant for applied mathematicians, physicists and engineers who use of numerical methods. The book should serve as a valuable auxiliary tool in an engineering and physics projects.

CRC Press
February 2024:328
Hb: 978-1-032-19209-3: **£140**

* For full contents and more information, visit: www.routledge.com/9781032192093

Theoretical and Computational Fluid Mechanics

Existence, Blow-up, and Discrete Exterior Calculus Algorithms



Terry E. Moschandreou, Keith Afas, Khoa Nguyen

Series: Chapman & Hall/CRC Numerical Analysis and Scientific Computing Series

This book centralizes the main and current topics in theoretical and applied fluid dynamics at the intersection of a mathematical and non-mathematical environment. The book is aimed at theorists and applied mathematicians from a wide range of scientific fields, including the social, health, and physical sciences. It provides a step-by-step guide to the construction of solutions of both elementary and open problems of viscous and non-viscous models, and for the applications of such models for the functional analysis and real analysis of data.

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Vector Calculus

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Steven G. Krantz, Harold Parks

Series: Textbooks in Mathematics

A calculus book must tell the truth. This book is carefully written in the accepted language of mathematics in a readable exposition. It includes useful and fascinating applications, acquaints students with the history of the subject and offers a sense of what mathematics is all about. Technique is presented, yet so are ideas. The author helps students to master basic methods and how to discover and build their own concepts in a scientific subject. There is an emphasis on using modeling and numerical calculation.

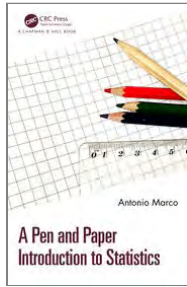
Chapman & Hall

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A Pen and Paper Introduction to Statistics



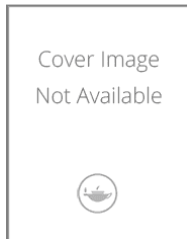
Antonio Marco

This book proposes to reverse the way statistics is taught, by starting with the introduction of linear models. The reader will have the opportunity to work through the examples and compute sums of squares by just drawing and counting, and finally evaluating whether observed differences are statistically significant by using the tables provided. Intended for students, professional life scientists, and those with little prior knowledge of statistics, this book is for all with simple and clear examples, computations and drawings helping the reader to, not only do, but also to understand statistics.

Chapman & Hall
December 2023:160
Hb: 978-1-032-50511-4: **£89.99**
Pb: 978-1-032-50510-7: **£31.99**
eBook: 978-1-003-39882-0

* For full contents and more information, visit: www.routledge.com/9781032505107

Adaptive Filtering Under Minimum Mean p-Power Error Criterion



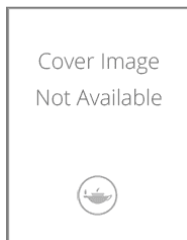
Wentao Ma, Badong Chen

Adaptive filtering still receives attention in engineering as the use of the adaptive filter provides improved performance over the use of a fixed filter under the time varying and unknown statistics environments. This book aims to provide a comprehensive introduction of the MMPE and related adaptive filtering algorithms, which will become an important reference for researchers and practitioners in this application area. The book is geared to senior undergraduates with a basic understanding of linear algebra and statistics, graduate students, or practitioners with experience in adaptive signal processing.

Chapman & Hall
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* For full contents and more information, visit: www.routledge.com/9781032001654

An Introduction to Panel Data QCA in R



Preya Bhattacharya

This book discusses and compares four different approaches towards analyzing panel data in QCA. It starts by introducing QCA as a research approach, then discusses the most important assumptions, and steps like set-calibration and theory-testing, and finally demonstrates each of the four panel data approaches, in separate chapters. Finally, it compares the strengths and weaknesses of each of these models and suggests scenarios where researchers can apply it. This book is supplemented by online RStudio materials, like datasets, codes, and Markdown documents for each chapter, and can be used as a textbook for introductory and advanced courses on panel-data

QCA.

Chapman & Hall
April 2024:160
Hb: 978-1-032-47096-2: **£77.99**

* For full contents and more information, visit: www.routledge.com/9781032470962

An Introduction to Spatial Data Science with GeoDa

Exploring Spatial Data, Volume 1



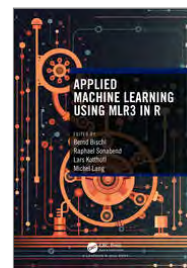
Luc Anselin

This book is the first in a two-volume series that introduces the field of spatial data science. It offers an accessible overview of the methodology of exploratory spatial data analysis. It also constitutes the definitive user's guide for the widely adopted GeoDa open source software for spatial analysis. Leveraging a large number of real-world empirical illustrations, readers will gain an understanding of the main concepts and techniques, using dynamic graphics for thematic mapping, statistical graphing, and, most centrally, the analysis of spatial autocorrelation.

Chapman & Hall
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Applied Machine Learning Using mlr3 in R



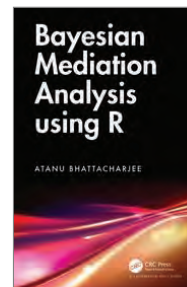
Edited by **Bernd Bischl, Raphael Sonabend, Lars Kotthoff, Michel Lang**

mlr3 is an award-winning ecosystem of R packages that have been developed to enable state-of-the-art machine learning capabilities in R. This book gives an overview of flexible and robust machine learning methods, with an emphasis on how to implement them using mlr3 in R. It covers many key topics, including basic machine learning tasks, such as building and evaluating a predictive model; hyperparameter tuning of machine learning approaches to obtain peak performance; building machine learning pipelines that perform complex operations

Chapman & Hall
January 2024:360
Hb: 978-1-032-51567-0: **£150**
Pb: 978-1-032-50754-5: **£59.99**

* For full contents and more information, visit: www.routledge.com/9781032507545

Bayesian Mediation Analysis using R



Atanu Bhattacharjee

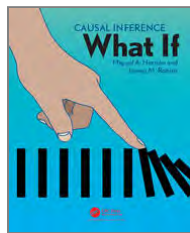
Focused on various forms of time-to-event data methodologies, this book helps readers master the application of Bayesian mediation analysis using R. Across ten chapters, this book explores concepts of mediation analysis, survival analysis, accelerated failure time modeling, longitudinal data analysis, and competing risk modeling. Each chapter progressively unravels intricate topics, from the foundations of Bayesian approaches to advanced techniques like variable selection, bivariate survival models, and Dirichlet process priors.

Chapman & Hall
April 2024:180
Hb: 978-1-032-28750-8: **£99.99**

* For full contents and more information, visit: www.routledge.com/9781032287508

Causal Inference

What If



Miguel A. Hernan, James M. Robins

The application of causal inference methods is growing exponentially in fields that deal with observational data. Written by pioneers in the field, this practical book presents an authoritative yet accessible overview of the methods and applications of causal inference. With a wide range of detailed, worked examples using real epidemiologic data as well as software for replicating the analyses, the text provides a thorough introduction to the basics of the theory for non-time-varying treatments and the generalization to complex longitudinal data.

CRC Press
April 2024:312
Hb: 978-1-420-07616-5: **£36.99**

* For full contents and more information, visit: www.routledge.com/9781420076165

Development of Gene Therapies

Strategic, Scientific, Regulatory, and Access Considerations



Edited by **Avery McIntosh, Oleksandr Sverdlov**

Series: Chapman & Hall/CRC Biostatistics Series

Development of Gene Therapies: Strategic, Scientific, and Regulatory, and Access Considerations summarizes the current state-of-the-art strategic, scientific, statistical, and regulatory aspects of GTx development. Intended to provide an exposition to the GTx new product development through peer-reviewed papers written by subject matter experts in this emerging field, this book will be useful for researchers in gene therapy drug development, biostatisticians, regulators, patient advocates, graduate students, and the finance and business development community.

Chapman & Hall
March 2024:488
Hb: 978-1-032-13655-4: **£150**

* For full contents and more information, visit: www.routledge.com/9781032136554

Foundations of Data Science with Python



John M. Shea

Series: Chapman & Hall/CRC The Python Series

Foundations of Data Science with Python introduces readers to the fundamentals of data science, including data manipulation and visualization, probability, statistics, and dimensionality reduction. This book is targeted toward engineers and scientists, but it should be readily understandable to anyone who knows basic calculus and the essentials of computer programming. This book can be used as an undergraduate textbook for an Introduction to Data Science course or to provide a more contemporary approach in courses like Engineering Statistics. It is also intended to be accessible to practicing engineers and scientists

Chapman & Hall
February 2024:496
Hb: 978-1-032-34674-8: **£175**
Pb: 978-1-032-35042-4: **£68.99**

* For full contents and more information, visit: www.routledge.com/9781032350424

From Concepts to Code

Introduction to Data Science



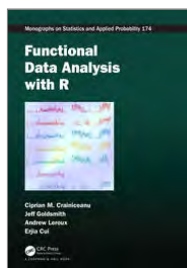
Adam P. Tashman

The breadth of problems that can be solved with data science is astonishing, and this book provides the required tools and skills to a broad audience. The reader takes a journey into the forms, uses, and abuses of data and models, and learns how to critically examine each step. Python coding and data analysis skills are built from the ground up, with no prior coding experience assumed. The necessary background in computer science, mathematics, and statistics is provided in an approachable manner. The book leverages content developed by the author for a full-year data science course suitable for advanced high school or early undergraduate students.

Chapman & Hall
April 2024:400
Hb: 978-1-032-51795-7: **£140**
Pb: 978-1-032-51798-8: **£54.99**

* For full contents and more information, visit: www.routledge.com/9781032517988

Functional Data Analysis with R



Ciprian M. Crainiceanu, Jeff Goldsmith, Andrew Leroux, Erjia Cui

Series: Chapman & Hall/CRC Monographs on Statistics and Applied Probability

Functional Data Analysis with R is primarily aimed at undergraduate, masters, and PhD students, as well as data scientists and researchers working on functional data analysis. The book can be read at different levels and combines state-of-the-art software, methods, and inference. It can be used for self-learning, teaching, and research, and will particularly appeal to anyone who is interested in practical methods for hands-on, problem-forward functional data analysis. The reader should have some basic coding experience, but expertise in R

is not required.

Chapman & Hall
March 2024:336
Hb: 978-1-032-24471-6: **£74.99**

* For full contents and more information, visit: www.routledge.com/9781032244716

Handbook of Bayesian, Fiducial, and Frequentist Inference



Edited by **James Berger, Xiao-Li Meng, Nancy Reid, Min-ge Xie**

Series: Chapman & Hall/CRC Handbooks of Modern Statistical Methods

The BFF approaches not only bridge foundations and scientific learning, but also facilitate objective and replicable scientific research, and provide scalable computing methodologies for the analysis of big data. Most of the published work typically focusses on a single topic or theme, and the body of work is scattered in different journals. This handbook provides a comprehensive introduction and broad overview of the key developments in the BFF schools of inference. It is intended for researchers and students who wish for an overview of foundations of inference from the BFF perspective and provides a

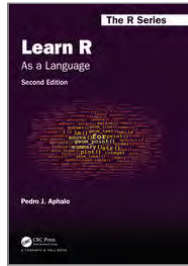
general reference for BFF inference.

Chapman & Hall
February 2024:392
Hb: 978-0-367-32198-7: **£150**

* For full contents and more information, visit: www.routledge.com/9780367321987

2ND EDITION

Learn R As a Language


Pedro J. Aphalo
Series: Chapman & Hall/CRC The R Series

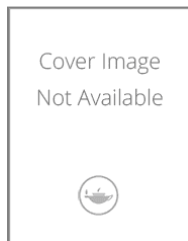
Learning a computer language like R can be either frustrating, fun, or boring. Having fun requires challenges that wake up the learner's curiosity but also provide an emotional reward on overcoming them. This is the second edition of a book designed so that it includes smaller and bigger challenges, in what I call playgrounds, in the hope that all readers will enjoy their path to R fluency.

Chapman & Hall
April 2024:462
Hb: 978-1-032-51843-5: **£150**
Pb: 978-1-032-51699-8: **£59.99**

* For **full contents** and more information, visit: www.routledge.com/9781032516998

Mixture Models

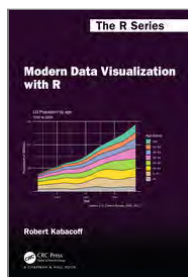
Parametric, Semiparametric, and New Directions


Weixin Yao, Sijia Xiang
Series: Chapman & Hall/CRC Monographs on Statistics and Applied Probability

Valuable resource for researchers and postgraduate students from statistics, biostatistics, and other fields. It could be used as a textbook for a course on model-based clustering methods, and as a supplementary text for courses on data mining, semiparametric modeling, and high-dimensional data analysis. It can be used as a textbook for a course on model-based clustering methods, and as a supplementary text for courses on data mining, semiparametric modeling, and high-dimensional data analysis.

Chapman & Hall
April 2024:402
Hb: 978-0-367-48182-7: **£89.99**
* For **full contents** and more information, visit: www.routledge.com/9780367481827

Modern Data Visualization with R


Robert Kabacoff
Series: Chapman & Hall/CRC The R Series

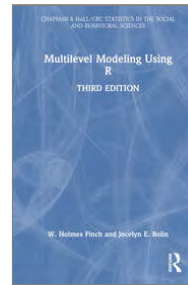
Describes ways that raw and summary data can be turned into visualizations that convey meaningful insights: basic graphs, bar charts, scatter plots, and line charts, and progresses to tree maps, alluvial plots, radar charts, mosaic plots, grouped dot plots, effects plots, multivariate presentations such as corrgrams, biplots, network diagrams.

Chapman & Hall
March 2024:256
Hb: 978-1-032-28949-6: **£150**
Pb: 978-1-032-28760-7: **£59.99**

* For **full contents** and more information, visit: www.routledge.com/9781032287607

3RD EDITION

Multilevel Modeling Using R


W. Holmes Finch, Jocelyn E. Bolin
Series: Chapman & Hall/CRC Statistics in the Social and Behavioral Sciences

Like its bestselling predecessor, Multilevel Modeling Using R, Third Edition provides the reader with a helpful guide to conducting multilevel data modeling using the R software environment. The third edition of the book includes several new topics that were not present in the second edition. Specifically, a new chapter has been included, focussing on fitting multilevel latent variable modeling in the R environment. This updated revision gives the reader state-of-the-art tools to launch their own investigations in multilevel modeling.

Chapman & Hall
April 2024:288
Hb: 978-1-032-36396-7: **£115**
Pb: 978-1-032-36394-3: **£52.99**

* For **full contents** and more information, visit: www.routledge.com/9781032363943

2ND EDITION

Nonparametric Statistical Methods Using R


John Kloeke, Joseph McKean
Series: Chapman & Hall/CRC Texts in Statistical Science

This thoroughly updated and expanded second edition covers traditional nonparametric methods and rank-based analyses. Two new chapters covering multivariate analyses and big data have been added. Core classical nonparametrics chapters on one- and two-sample problems have been expanded to include discussions on ties as well as power and sample size determination. The book is suitable for advanced undergraduate and graduate students in statistics and data science, and students of other majors with a solid background in statistical methods including regression and ANOVA. It will also be of

use to researchers working with nonparametric and rank-based methods in practice.

Chapman & Hall
May 2024:480
Hb: 978-0-367-65135-0: **£66.99**

* For **full contents** and more information, visit: www.routledge.com/9780367651350

Philosophies, Puzzles and Paradoxes

A Statistician's Search for Truth


Yudi Pawitan, Youngjo Lee

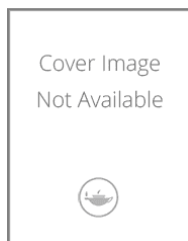
Aimed at undergraduate students of statistics, researchers interested in the philosophical foundations of statistics. Of interest to philosophers of science, as well as a general audience interested in puzzles and paradoxes. The Bayesian and frequentist schools of statistics have spawned distinct methods, so the philosophical separation has substantive and practical effects. Numerous puzzles and paradoxes are used, not to dismiss any philosophy outright, but to illuminate the logical issues clearly and, whenever possible, to contrast the three philosophies.

Chapman & Hall
February 2024:320
Hb: 978-1-032-37740-7: **£130**
Pb: 978-1-032-37739-1: **£49.95**

* For **full contents** and more information, visit: www.routledge.com/9781032377391

Practical Machine Learning with R

Tutorials and Case Studies



Carsten Lange

This textbook is a comprehensive guide to machine learning and artificial intelligence tailored for students in business and economics. It takes a hands-on approach to teach machine learning, emphasizing practical applications over complex mathematical concepts. Students are not required to have advanced mathematics knowledge such as matrix algebra or calculus. This book is not just a textbook; it is a dynamic learning experience that empowers students and instructors alike with a practical and accessible approach to machine learning in business and economics.

Chapman & Hall

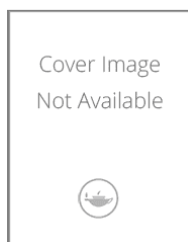
April 2024:368

Hb: 978-1-032-43405-6: **£74.99**

* For **full contents** and more information, visit: www.routledge.com/9781032434056

Principles of Psychological Assessment

With Applied Examples in R



Isaac T. Petersen

Series: Chapman & Hall/CRC Statistics in the Social and Behavioral Sciences

Discusses psychometrics, the assessment of various psychological domains, various measurement methods and emerging analytical frameworks to evaluate and improve assessment, generalizability theory, structural equation modeling, item response theory, and signal detection theory, ethics, test bias, and cultural and individual diversity.

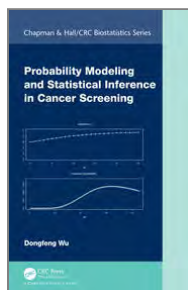
Chapman & Hall

April 2024:640

Hb: 978-1-032-41306-8: **£150**

* For **full contents** and more information, visit: www.routledge.com/9781032413068

Probability Modeling and Statistical Inference in Cancer Screening



Dongfeng Wu

Series: Chapman & Hall/CRC Biostatistics Series

There are many unsolved problems in the study of cancer screening: how to estimate key parameters involved in screening exams, such as screening sensitivity; how to estimate distribution of lead time; how to evaluate the long-term effects of screening, including probability of over diagnosis, true-early-detection and no-early-detection, etc. These problems need a correct probability model to deal with, and this book gives a concise account of the analysis of cancer screening data using probability models.

Chapman & Hall

February 2024:296

Hb: 978-1-032-51330-0: **£89.99**

* For **full contents** and more information, visit: www.routledge.com/9781032513300

Research Software Engineering

A Guide to the Open Source Ecosystem



Matthias Bannert

Series: Chapman & Hall/CRC Data Science Series

Research Software Engineering: A Guide to the Open Source Ecosystem strives for a big picture overview and to give an understanding of the opportunities of programming as an approach to analytics and statistics. The book argues that a solid, 'programming' skill level is not only well within reach for many but also worth pursuing for researchers and business analysts. Given the pace of the development in data science, many researchers, alongside non-computer science curricula lack a basic software engineering component. This book provides a dedicated programming-with-data resource to both academic scholars and practitioners.

Chapman & Hall

April 2024:208

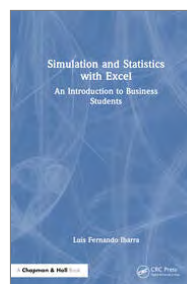
Hb: 978-1-032-26164-5: **£130**

Pb: 978-1-032-26127-0: **£54.99**

* For **full contents** and more information, visit: www.routledge.com/9781032261270

Simulation and Statistics with Excel

An Introduction to Business Students



Luis Fernando Ibarra

Simulation and Statistics with Excel: An Introduction to Business Students offers a non-rigorous and practical tour of the simulation procedure on computers, using a versatile and accessible resource, the Microsoft Excel spreadsheet. This book covers the concepts essential to understanding the basic principles and approaches of statistical simulation, allowing for the study of complex systems. Aimed at students in business and operational research beginning to use simulation as an instrument for understanding existing or proposed processes, this book will lay solid foundations in understanding simulation experimentation.

Chapman & Hall

April 2024:280

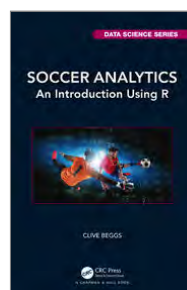
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Pb: 978-1-032-70154-7: **£54.99**

* For **full contents** and more information, visit: www.routledge.com/9781032701547

Soccer Analytics

An Introduction Using R



Clive Beggs

Series: Chapman & Hall/CRC Data Science Series

The book is a comprehensive introduction to soccer analytics aimed at all those interested in analysing soccer data, be they fans, gamblers, coaches, sports scientists, or data scientists and statisticians wishing to pursue a career in professional soccer. It aims to equip the reader with the knowledge and skills required to confidently analyse soccer data using R, all in a few easy lessons.

Chapman & Hall

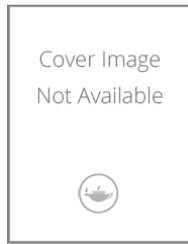
March 2024:360

Hb: 978-1-032-35783-6: **£130**

Pb: 978-1-032-35758-4: **£49.99**

* For **full contents** and more information, visit: www.routledge.com/9781032357584

Spatial Linear Models for Environmental Data



Dale Zimmerman, Jay M. Ver Hoef

Series: Chapman & Hall/CRC Applied Environmental Statistics

Many applied researchers equate spatial statistics with prediction or mapping, but this book naturally extends linear models, which includes regression and ANOVA as pillars of applied statistics, to achieve a more comprehensive treatment of the analysis of spatially autocorrelated data. Spatial Linear Models for Environmental Data, aimed at students and professionals with a master's level training in statistics, presents a unique, applied, and thorough treatment of spatial linear models within a statistics framework. By mimicking their examples and R code, readers will be able to fit spatial linear models

to their data and draw proper scientific conclusions.

Chapman & Hall

April 2024:416

Hb: 978-0-367-18334-9: £74.99

* For full contents and more information, visit: www.routledge.com/9780367183349

Spatio-Temporal Models for Ecologists



James Thorson, Kasper Kristensen

Series: Chapman & Hall/CRC Applied Environmental Statistics

This book seeks to introduce a minimal set of principles and numerical techniques for spatio-temporal statistics that can be used to implement a wide range of real-world ecological analyses regarding animal movement, population dynamics, community composition, causal attribution, and spatial dynamics. Techniques are showcased using real-world data from varied ecological systems, providing a toolset for hierarchical modelling of spatio-temporal processes. Spatio-Temporal Models for Ecologists is meant for graduate level students, alongside applied and academic ecologists. Step-by-step illustrations of techniques using R are provided.

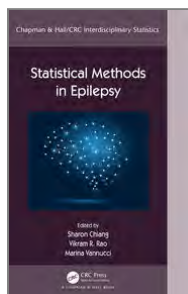
Chapman & Hall

February 2024:296

Hb: 978-1-032-53101-4: £74.99

* For full contents and more information, visit: www.routledge.com/9781032531014

Statistical Methods in Epilepsy



Edited by Sharon Chiang, Vikram Rao, Marina Vannucci

Series: Chapman & Hall/CRC Interdisciplinary Statistics

Provides a comprehensive introduction to statistical methods employed in epilepsy research. Written in a clear, accessible style by leading authorities, this textbook demystifies statistical methods essential for epilepsy research, providing a practical roadmap that will be invaluable for learners and experts alike.

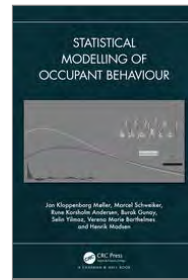
Chapman & Hall

January 2024:448

Hb: 978-1-032-18435-7: £105

* For full contents and more information, visit: www.routledge.com/9781032184357

Statistical Modelling of Occupant Behaviour



Jan Kloppenborg Møller, Marcel Schweiker, Rune Korsholm Andersen, Burak Gunay, Verena Marie Barthelmes, Selin Yilmaz, Henrik Madsen

This book is the result of a collaboration between researchers from occupant behaviour and statistical modelling. It presents a range of statistical methods and models used for modelling occupancy behaviour. The methods are classical statistics, but combined with the expertise from all authors, the book provides many practical real-world examples related to occupant behaviour. R code is included to enable implementation of the methods to real problems encountered in occupant behaviour modelling.

Chapman & Hall

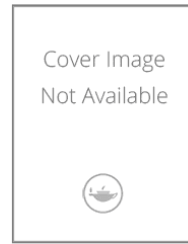
January 2024:392

Hb: 978-1-032-33460-8: £120

* For full contents and more information, visit: www.routledge.com/9781032334608

The Data Preparation Journey

Finding Your Way with R



Martin Hugh Monkman

Series: Chapman & Hall/CRC Data Science Series

This book introduces the principles of data preparation within a systematic approach that follows a typical data science or statistical workflow. This book is designed for readers with a working knowledge of data manipulation functions in R or other programming languages. It is suitable for academics for whom analyzing data is crucial, businesses who make decisions based on the insights gleaned from collecting data from customer interactions, and public servants who use data to inform policy and program decisions. The principles and practices described within The Data Preparation Journey apply

regardless of the context.

Chapman & Hall

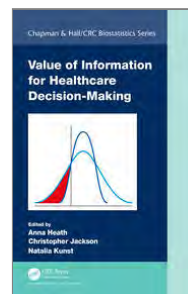
April 2024:248

Hb: 978-1-032-19231-4: £130

Pb: 978-1-032-18975-8: £52.99

* For full contents and more information, visit: www.routledge.com/9781032189758

Value of Information for Healthcare Decision-Making



Edited by Anna Heath, Natalia Kunst, Christopher Jackson

Series: Chapman & Hall/CRC Biostatistics Series

The primary audience for this book is health economic modellers and researchers, in industry, government, or academia, who wish to perform VOI analysis in health economic evaluations. It is relevant for postgraduate researchers and students in health economics or medical statistics who are required to learn the principles of VOI or undertake VOI analyses in their projects.

Chapman & Hall

February 2024:318

Hb: 978-0-367-74101-3: £99.99

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A Beginners Guide to Amazon Web Services



Parul Dubey, Rohit Raja

This reference text provides a simple-to-learn beginners approach to understanding the concepts of cloud computing and the amazon web services (AWS) platform. It will further discuss important topics such as Fargate, amazon kinesis data stream, amazon cloud front, amazon cloud watch, and amazon cloud trail. The text will also focus on services such as amazon SQS, amazon snowball, amazon lex, and Amazon SageMaker. The text is primarily written for graduate students, professionals, and academic researchers working in the fields of computer science and engineering, and information technology.

Chapman & Hall
January 2024:210

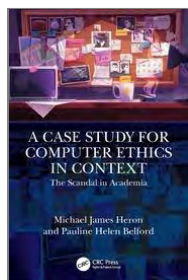
Hb: 978-1-032-52156-5: £230

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A Case Study for Computer Ethics in Context

The Scandal in Academia



Michael James Heron, Pauline Helen Belford

Aimed at addressing the difficulties associated with teaching often abstract elements of technical ethics, this book is an extended fictional case study into the complexities of technology and social structures in complex organizations. Within this case study, an accidental discovery reveals that the algorithms of Professor John Blackbriar are not quite what they were purported to be. Over the course of fourteen newspaper articles, a nebula of professional malpractice and ethical compromise is revealed, ultimately destroying the career of a prominent, successful academic.

CRC Press

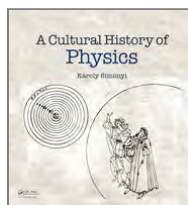
March 2024:344

Hb: 978-1-032-54690-2: £115

Pb: 978-1-032-54691-9: £44.99

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A Cultural History of Physics



Károly Simonyi

Written by Hungarian scientist and engineer Károly Simonyi, translated and updated, this classic and comprehensive history of physics combines a wide-ranging, in-depth account of the science of physics with an insightful interpretation of the cultural context in which these experimental discoveries and conceptual interpretations developed. A wealth of original sources and illustrations, both technical and historical, allow readers to get involved in an intellectual dialogue with the great scientific minds that created our

understanding of the physical world.

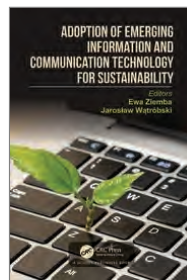
A K Peters/CRC Press

March 2024:664

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Adoption of Emerging Information and Communication Technology for Sustainability



Edited by **Ewa Ziemia, Jarosław Wątróbski**

This book represents an important voice in the discourse on the adoption of emerging ICT for sustainability. It focuses on how emerging ICT acts as a crucial enabler of sustainability, offering new forward-looking approaches to this field. The book explores how emerging ICT adoption drives sustainability efforts in business and public organizations, promoting ecological, economic, social, cultural, and political sustainability.

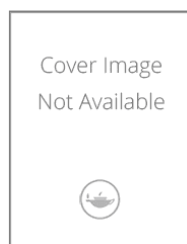
CRC Press

February 2024:354

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* For full contents and more information, visit: www.routledge.com/9781032327624

Advances on Mathematical Modeling and Optimization with Its Applications



Edited by **Gunjan Mukherjee, Biswadip Basu Mallik, Rahul Kar, Aryan Chaudhary**

Series: Emerging Technologies

Discusses the fundamentals of mathematical modeling and optimization, followed by explaining linear integer programming, network design problems, regression methods, and mixed integer problems. It further covers artificial intelligence and neural networking concepts in terms of mathematical models. It highlights the application of multi-attribute decision modeling in image processing and soft computing. Written for senior undergraduate, graduate

students, and academic researchers in the field of mathematics, statistics, and computer science.

CRC Press

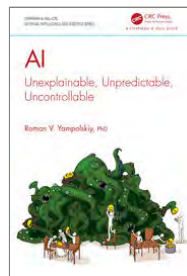
March 2024:310

Hb: 978-1-032-47961-3: £89.99

* For full contents and more information, visit: www.routledge.com/9781032479613

AI

Unexplainable, Unpredictable, Uncontrollable



Roman V. Yampolskiy

Series: Chapman & Hall/CRC Artificial Intelligence and Robotics Series

Delving into the deeply enigmatic nature of Artificial Intelligence (AI), 'AI: Unpredictable, Unexplainable, Uncontrollable' explores the various reasons why the field is so challenging. Bridging the gap between technical intricacies and philosophical musings, 'AI: Unpredictable, Unexplainable, Uncontrollable' appeals to both AI experts and enthusiasts looking for a comprehensive understanding of the field, whilst also being written for a general audience with minimal technical jargon.

Chapman & Hall

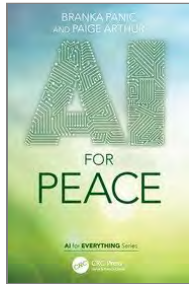
February 2024:304

Hb: 978-1-032-57627-5: £89.99

Pb: 978-1-032-57626-8: £44.99

* For full contents and more information, visit: www.routledge.com/9781032576268

AI for Peace



Branka Panic, Paige Arthur

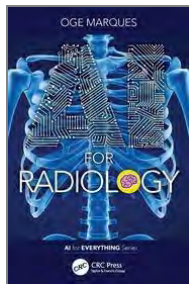
Series: AI for Everything

An increasingly relevant topic in the peacebuilding field, this book acts as an essential primer for introducing peacebuilders to the latest advancements in emerging technologies and will act as guide for future practice. It is also useful for those in data science and AI fields, raising awareness of the impacts of their work beyond bias and transparency. The book would also be a topical addition to undergraduate and postgraduate courses on digital peacebuilding, peacetechnology, international relations, tech in development, and humanitarian action.

CRC Press
April 2024:152
Hb: 978-1-032-41838-4: **£36.99**
Pb: 978-1-032-41837-7: **£14.99**

* For **full contents** and more information, visit: www.routledge.com/9781032418377

AI for Radiology



Oge Marques

Series: AI for Everything

Artificial Intelligence has revolutionised many areas of medicine and is increasingly being embraced. This book focuses on the integral role of AI in radiology, shedding light on how this technology can enhance patient care and streamline professional workflows. This book has been crafted with a diverse readership in mind. It is a valuable asset for medical professionals eager to stay up-to-date with AI developments, computer scientists curious about AI's clinical applications, and anyone interested in the intersection of healthcare and technology.

CRC Press
February 2024:230
Hb: 978-0-367-62778-2: **£125**
Pb: 978-0-367-62725-6: **£22.99**

* For **full contents** and more information, visit: www.routledge.com/9780367627256

AI, Pandemic and Healthcare



Nuoya Chen

The demand for telehealth solutions has been growing exponentially after the Covid-19 pandemic. Hospitals remain understaffed, which leads to staff burnouts and unsatisfactory patient experience. They also find it difficult to use AI to reduce the workload for doctors and nurses. Doctors barely use data collected from wearables and home-use medical devices to make diagnosis. As generative AI advances, traditional medical device manufacturers are exploring with open innovation to transform into a software-based business model facing competition from large tech companies and startups.

CRC Press
February 2024:200
Hb: 978-1-032-42128-5: **£120**

* For **full contents** and more information, visit: www.routledge.com/9781032421285

An Introduction to Universal Artificial Intelligence



Marcus Hutter, Elliot Catt, David Quarel

Series: Chapman & Hall/CRC Artificial Intelligence and Robotics Series

An Introduction to Universal Artificial Intelligence (UAI) provides a gentle introduction to Universal Artificial Intelligence (UAI), a theory that provides a formal underpinning of what it means for an agent to act intelligently in a general class of environments. First presented in Universal Artificial Intelligence (Hutter, 2004), UAI presents a model in which most other problems in AI can be presented, and unifies ideas from sequential decision theory, Bayesian inference and information theory to construct AIXI, an optimal reinforcement learning agent that learns to act optimally in unknown environments.

Chapman & Hall
March 2024:416
Hb: 978-1-032-60715-3: **£145**
Pb: 978-1-032-60702-3: **£56.99**

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Applications of Blockchain Technology

An Industry Focus



Anita Ravani, Sashi Edupuganti, Jeannette Pugh, Sooraj Sushama

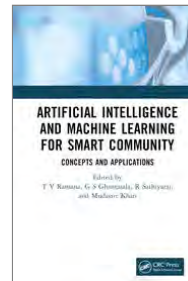
The book features professional works designed for deconstructing and building blockchain applications for the most notable industries. The focus is mainly on providing strategic directions, technological advances, obstacles, and solutions that contribute to the way business is conducted today. It also provides valuable insights into future business practices. Primarily written by practitioners, consultants, and academic scholars, the book will inspire and inform decision-makers.

CRC Press
February 2024:262
Hb: 978-1-032-47088-7: **£120**

* For **full contents** and more information, visit: www.routledge.com/9781032470887

Artificial Intelligence and Machine Learning for Smart Community

Concepts and Applications



Edited by **T V Ramana, G S Ghantasala, R Sathiyaraj, Mudassir Khan**

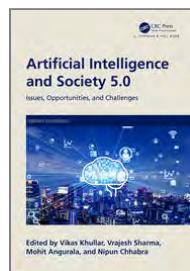
Intelligent systems are technologically advanced machines that perceive and respond to the world around them. Primarily written for graduate students and academic researchers working in the fields of computer science and engineering, Artificial Intelligence and Machine Learning for Smart Community: Concepts and Applications presents the evolution, challenges, and limitations of the application of machine learning and artificial intelligence to intelligent systems and smart communities.

CRC Press
January 2024:182
Hb: 978-1-032-52606-5: **£89.99**

* For **full contents** and more information, visit: www.routledge.com/9781032526065

Artificial Intelligence and Society 5.0

Issues, Opportunities, and Challenges



Edited by **Vikas Khullar, Vrajesh Sharma, Mohit Angurala, Nipun Chhabra**

Series: *Emerging Technologies*

The text presents an artificial intelligence-based framework, algorithms, and applications from the perspective of society 5.0. It will further showcase real-time case studies of society 5.0 in diverse areas such as healthcare, smart cities, and infrastructure.

Chapman & Hall
January 2024:294
Hb: 978-1-032-50075-1: £125

* For full contents and more information, visit: www.routledge.com/9781032500751

Artificial Intelligence of Things (AIoT)

New Standards, Technologies and Communication Systems



Edited by **Kashif Naseer Qureshi, Thomas Newe**

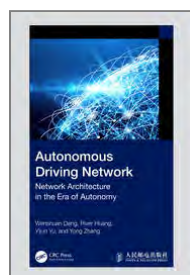
This book is devoted to the new standards, technologies, and communication systems for Artificial Intelligence of Things (AIoT) networks. Smart and intelligent communication networks have gained significant attention due to the combination of AI and IoT networks to improve human and machine interfaces and enhance data processing and services. AIoT networks involve the collection of data from several devices and sensor nodes in the environment. AI can enhance these networks to make them faster, greener, smarter, and safer. Computer vision, language processing, and speech recognition are some examples of AIoT networks.

CRC Press
March 2024:256
Hb: 978-1-032-55299-6: £99.99

* For full contents and more information, visit: www.routledge.com/9781032552996

Autonomous Driving Network

Network Architecture in the Era of Autonomy



Edited by **Wenshuan Dang, River Huang, Yijun Yu, Yong Zhang**

Aiming to outline the vision of realizing automated and intelligent communication networks in the era of intelligence, this book describes the development history, application scenarios, theories, architectures, and key technologies of Huawei's Autonomous Driving Network (ADN) solution. The title is an essential reference for professionals and researchers who want to gain a deeper understanding of automated and intelligent communication networks and their applications.

CRC Press
February 2024:398
Hb: 978-1-032-65506-2: £130

* For full contents and more information, visit: www.routledge.com/9781032655062

Autonomous Vehicles and Systems

A Technological and Societal Perspective



Edited by **Ishwar K. Sethi**

Series: *River Publishers Series in Automation, Control and Robotics*

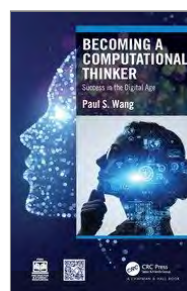
This book captures multidisciplinary research encompassing various facets of autonomous vehicle systems (AVS) research and developments. The AVS field is rapidly moving towards realization with numerous advances continually reported. The contributions to this field come from widely varying branches of knowledge, making it a truly multidisciplinary area of research and development.

River Publishers
February 2024:464
Hb: 978-8-770-22885-5: £110

* For full contents and more information, visit: www.routledge.com/9788770228855

Becoming a Computational Thinker

Success in the Digital Age



Paul S Wang

This book has a single purpose: to help everyone become a computational thinker. Computational thinking (CT) is thinking informed by the digital age, and a computational thinker is someone who can apply that thinking everywhere and anywhere. Through practical examples and easy-to-grasp terminology, this book is a guide to navigating the digital world and improving one's efficiency, productivity, and success immediately.

Chapman & Hall
January 2024:344
Hb: 978-1-032-56899-7: £52.99
Pb: 978-1-032-56898-0: £36.99

* For full contents and more information, visit: www.routledge.com/9781032568980

Big Data in Oncology: Impact, Challenges, and Risk Assessment



Edited by **Neeraj Kumar Fuloria, Rishabha Malviya, Swati Verma, Balamurugan Balusamy**

Series: *River Publishers Series in Biomedical Engineering*

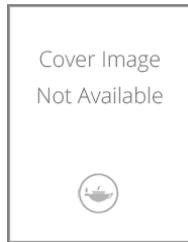
This book brings together insights for cancer management from emerging sophisticated information and communication technologies such as artificial intelligence, data science, and big data analytics. It focuses on targeted disease treatment using big data analytics, providing information about targeted treatment in oncology, challenges and application of big data in cancer therapy. The book is written for academics, research scholars, health care professionals, hospital management, pharmaceutical chemist, biomedical industry, software engineers and IT professionals.

River Publishers
December 2023:490
Hb: 978-8-770-22813-8: £110
eBook: 978-1-003-44263-9

* For full contents and more information, visit: www.routledge.com/9788770228138

Bioinformatics for Oral Cancer

Current Insights and Advances



Edited by **Mahesh KP, Raghavendra Amachawadi, Shiva Prasad Kollur, Chandan Shivamallu**

Bioinformatics for Oral Cancer: Current Insights and Advances serves as a comprehensive guide offering a deep dive into the multifaceted landscape of oral cancer research and bioinformatics. Readers will uncover a wealth of knowledge, starting with foundational chapters introducing bioinformatics and establishing the backdrop of oral cancer. The book's keen focus extends to gene expression profiles and the intricacies of gene sequencing in the context of oral cancer progression.

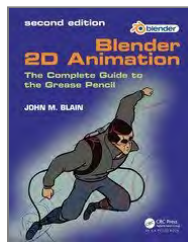
CRC Press
April 2024:120
Hb: 978-1-032-62570-6: **£89.99**

* For **full contents** and more information, visit: www.routledge.com/9781032625706

2ND EDITION

Blender 2D Animation

The Complete Guide to the Grease Pencil



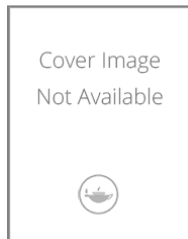
John M. Blain

This book describes how to access the Grease Pencil component in Blender and create 2D Animation within the Blender 3D environment. It is assumed that the reader has no previous knowledge of the Blender program and treats 2D Animation using the Grease Pencil as a standalone application. Grease Pencil is a component of the 3D modeling and animation program, Blender. Blender is a free open-source 3D Computer Graphics software toolset used for creating animated films, visual effects, art, 3D printed models, motion graphics, interactive 3D applications, virtual reality and computer games.

A K Peters/CRC Press
March 2024:216
Hb: 978-1-032-63147-9: **£145**
Pb: 978-1-032-64979-5: **£58.99**

* For **full contents** and more information, visit: www.routledge.com/9781032649795

Blockchain and Machine Learning for IoT Security



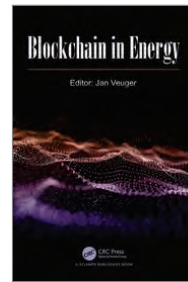
Edited by **Mourade Azrou, Jamal Mabrouki, Azidine Guezzaz, Said Benkirane**

This book discusses various recent techniques and solutions related to IoT deployment, especially security, and privacy. It addresses a variety of subjects, including a comprehensive overview of the IoT, and covers in detail the security challenges at each layer, by considering how both the architecture and underlying technologies are employed. As acknowledged experts in the field, the authors provide remediation solutions for impaired security, as well as mitigation methods, and offer both prevention and improvement suggestions.

Chapman & Hall
February 2024:176
Hb: 978-1-032-56344-2: **£105**

* For **full contents** and more information, visit: www.routledge.com/9781032563442

Blockchain in Energy



Edited by **Jan Veuger**

The aim of this book is to share my knowledge in the realm of energy and blockchain. It addresses the urgency of addressing global energy challenges and acknowledges the pivotal role of the EU in this endeavor.

CRC Press
February 2024:186
Hb: 978-1-032-15240-0: **£105**

* For **full contents** and more information, visit: www.routledge.com/9781032152400

Blockchain Intelligent Systems

Protocols, Application and Approaches for Future Generation Computing



Edited by **E. Golden Julie, Y. Harold Robinson, J Jesu Vedha Nayahi, Thavavel Vaiyapuri**

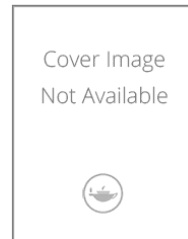
Blockchain provides an environment where technologies converge to provide maximum benefits. There are still many problems ahead, and changes are required at all levels: technology, algorithms, and human-computer interaction for widespread acceptance of blockchain intelligence systems. This book provides a review blockchain technology, and current developments in research and business applications. It aims to explore the real-time applications and issues that will bring the synergy needed to materialize the goal of blockchain intelligence.

CRC Press
February 2024:240
Hb: 978-1-032-32220-9: **£140**

* For **full contents** and more information, visit: www.routledge.com/9781032322209

Blockchain-based Internet of Things

Opportunities, Challenges and Solutions



Edited by **Iraq Ahmad Reshi, Sahil Sholla**

This reference text presents an overview of the blockchain-based internet of things systems, along with the opportunities, challenges, and solutions in diverse fields such as business, education, agriculture, and healthcare. It discusses scalability, security, layers, threats, and countermeasures in blockchain-based internet of things network. It elaborates on the opportunities presented by combining blockchain with artificial intelligence in the internet of things systems in the management of food systems, and drug supply chains. It explains the management of computationally intensive tasks in blockchain-based internet of things through the development of lightweight protocols.

Chapman & Hall
March 2024:248
Hb: 978-1-032-52487-0: **£89.99**

* For **full contents** and more information, visit: www.routledge.com/9781032524870

Business Planning for Games



Christopher Buckingham

This is a practical guide to help budding entrepreneurs think about various planning aspects of their proposed games business, with a view to growing their businesses and becoming more successful. The book includes customary business plan headings and worksheets where the reader can record their working-outs as they start to articulate the vision behind their game. This book will be of great interest to all students learning about the business of games, as well as budding entrepreneurs looking for guidance on how to begin planning their own games business.

CRC Press
December 2023:192
Hb: 978-1-032-40338-0: £120
Pb: 978-1-032-40337-3: £44.99

* For full contents and more information, visit: www.routledge.com/9781032403373

Choreomata

Performance and Performativity after AI



Edited by **Roberto Alonso Trillo, Marek Poliks**

Is AI becoming more and more expressive, or is human thought adopting more and more structures from computation? What does it mean to perform oneself through AI, or to construct one's subjectivity through AI? How does AI continue to complicate what it means to have a body? Has the golden age of AI, especially with regards to creative applications, already ended? *Choreomata* is a book about performance and performativity, but more specifically it is a book about the performance of artificiality and the performance of intelligence

Chapman & Hall
December 2023:542
Hb: 978-1-032-31998-8: £59.99
Pb: 978-1-032-31991-9: £44.99

* For full contents and more information, visit: www.routledge.com/9781032319919

Cognitive Predictive Maintenance Tools for Brain Diseases

Design and Analysis



Edited by **Shweta Gupta**

Series: Chapman & Hall/CRC Internet of Things

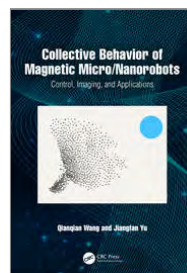
This book involves the design, analysis, and application of various Cognitive Predictive Maintenance Tests with help of tools like vibration analysis tools, Ultrasonic analysis tools, Infrared analysis tools, Oil analysis tools, Laser-shaft alignment tools, and Motor circuit analysis tools in the prediction of various Cognitive diseases like Epilepsy, Parkinson's Disease, Alzheimer's, depression, etc. which is need of the day since there are no proper medical tests available to predict the diseases in remote areas at an early stage. Various emerging technologies are analyzed for the design of tests.

Chapman & Hall
August 2024:196
Hb: 978-1-032-15682-8: £130
eBook: 978-1-003-24534-6

* For full contents and more information, visit: www.routledge.com/9781032156828

Collective Behavior of Magnetic Micro/Nanorobots

Control, Imaging, and Applications



Qianqian Wang, Jiangfan Yu

The book reviews recent advances in the design and construction of magnetic collective micro/nanorobot systems, and promotes the bridging of the gap between their theoretical investigation and practical applications. By discussing the control, imaging, and biomedical applications of collective micro/nanorobots, the authors demonstrate the state-of-the-art technique and ideas for designing systems of collective micro/nanorobots. The book is suitable for scientists, engineers, and students involved in the study of robotics, control, materials, and mechanical/electrical engineering.

CRC Press
January 2024:352
Hb: 978-1-032-66548-1: £130

* For full contents and more information, visit: www.routledge.com/9781032665481

Computer Science Engineering and Emerging Technologies

Proceedings of ICCS 2022



Edited by **Rajeev Sobti, Rachit Garg**

The year 2022 marks the 100th birth anniversary of Kathleen Hylda Valerie Booth, who wrote the first assembly language and designed the assembler and auto code for the first computer systems at Birkbeck College, University of London. She helped design three different machines including the ARC (Automatic Relay Calculator), SEC (Simple Electronic Computer), and APE(X). School of Computer Science and Engineering, under the aegis of Lovely Professional University, pays homage to this great programmer of all times by hosting "BOOTH100"—6th International Conference on Computing Sciences.

CRC Press
February 2024:720
Pb: 978-1-032-52199-2: £44.99

* For full contents and more information, visit: www.routledge.com/9781032521992

Computer Vision

Object Detection In Adversarial Vision



Mrinal Kanti Bhowmik

This comprehensive text/ book presents a broad review of both traditional (i.e., conventional) and the deep learning aspects of object detection in various adversarial conditions of real-world in a clear, insightful, and highly comprehensive style. *Computer Vision: Object Detection in Adversarial Vision* is unique for its diverse content, clear presentation, and overall completeness. The book will be of great interest to a broad audience ranging from researchers and practitioners, graduate and post graduate students involved in computer vision task with respect to object detection in degraded and non-degraded vision problems of real-world.

Chapman & Hall
March 2024:232
Hb: 978-1-032-55180-7: £140

* For full contents and more information, visit: www.routledge.com/9781032551807

Cutting-edge Technologies in Biological Sensing and Analysis



Edited by **Anh Hung Nguyen, Sang Jun Sim, Hung Cao**

Series: *River Publishers Series in Biomedical Engineering*

Advanced technologies have been transforming the ways we carry out biological studies as well as deliver healthcare. In this context, we edit this book aiming to cover a broad field of novel technologies used in biological assessment and analysis for humans, animal models and in vitro platforms, in both health monitoring and biological studies.

River Publishers
February 2024:346
Hb: 978-8-770-22379-9: **£99.99**

* For full contents and more information, visit: www.routledge.com/9788770223799

Dashboard Design



Michael Burch, Marco Schmid

Series: *River Publishers Series in Computing and Information Science and Technology*

Interactive visualization and visual analytics tools have been designed and developed in the past and will be developed in the future as well. In each application domain in which data is measured, generated, and recorded we see a potential candidate for an interactive visualization tool with the goal to find insights and knowledge in the data. This book describes ways to design and implement dashboards based on the programming language Python, the graphics library Plotly, and Dash. The readers can use the provided dashboard codes as a starting point and extend the functionality and features on their

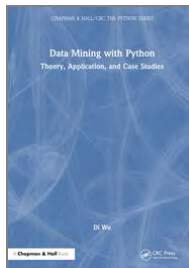
desire.

River Publishers
February 2024:314
Hb: 978-8-770-04004-4: **£99.99**

* For full contents and more information, visit: www.routledge.com/9788770040044

Data Mining with Python

Theory, Application, and Case Studies



Di Wu

Series: *Chapman & Hall/CRC The Python Series*

This book focuses on the hands-on approach to learning Data Mining. It showcases how to use Python Packages to fulfill the Data Mining pipeline, which is to collect, integrate, manipulate, clean, process, organize, and analyze data for knowledge. It is designed to give students, data scientists, and business analysts an understanding of Data Mining concepts in an applicable way. Through interactive tutorials that can be run, modified, and used for a more comprehensive learning experience, this book will help its readers to gain practical skills to implement Data Mining techniques in their work.

Chapman & Hall
April 2024:434
Hb: 978-1-032-61264-5: **£115**
Pb: 978-1-032-59890-1: **£44.99**

* For full contents and more information, visit: www.routledge.com/9781032598901

Data Science and Machine Learning Applications in Subsurface Engineering



Edited by **Daniel Asante Otchere**

This book provides comprehensive research and explores the different applications of data science and machine learning in subsurface engineering. It covers a wide range of topics, including flow metering, injection rate estimation, seismic volume reconstruction, and petroleum reservoir characterisation. Written by experts in the field, it provides practical examples of how these techniques have been applied in the industry, making it an authoritative and reliable resource.

CRC Press
February 2024:322
Hb: 978-1-032-43364-6: **£120**
eBook: 978-1-003-36698-0

* For full contents and more information, visit: www.routledge.com/9781032433646

Data Science and Machine Learning for Non-Programmers

Using SAS Enterprise Miner



Dothang Truong

Series: *Chapman & Hall/CRC Data Mining and Knowledge Discovery Series*

As data continues to grow exponentially, knowledge of data science and machine learning has become more crucial than ever. Machine learning has grown exponentially, however, the abundance of resources can be overwhelming, making it challenging for new learners. This book aims to address this disparity and cater to learners from various non-technical fields, enabling them to utilise machine learning effectively.

Chapman & Hall
January 2026:594
Hb: 978-0-367-75538-6: **£74.99**
Pb: 978-0-367-75196-8: **£44.99**

* For full contents and more information, visit: www.routledge.com/9780367751968

Data Visualization for People of All Ages



Nancy Organ

Series: *AK Peters Visualization Series*

The book is a field guide to visual literacy, born from the author's personal experience working with world-class scholars, engineers, and scientists. By walking through the different ways of showing data—including color, angle, position, and length—you'll learn how charts and graphs truly work so that no visualization is ever a mystery or out of reach. It doesn't stop at what fits on a page, either. Written with accessibility in mind, this book invites everyone to the table to share the joy of one of today's most necessary skills. Perfect for home or classroom use, this friendly companion gives people of all ages

everything they need to start visualizing with confidence.

A K Peters/CRC Press
April 2024:260
Hb: 978-1-032-31360-3: **£74.99**
Pb: 978-1-032-30100-6: **£26.99**

* For full contents and more information, visit: www.routledge.com/9781032301006

Data-Driven Decision Making in Entrepreneurship

Tools for Maximizing Human Capital



Edited by **Nikki Blackmith, Maureen E. McCusker**

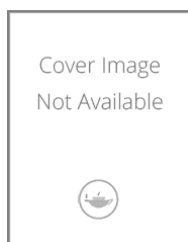
There is a large gap in entrepreneurship research when it comes to human capital data analytics. However, organizational sciences have made significant advancements in this area. The book reviews data analytics for human capital management in entrepreneurship. It is grounded in sound theory and discusses practical applications. It is divided into two parts: 1) assessing and evaluating human capital performance, 2) managing and accelerating human capital. Each chapter highlights a novel data analytic technique and its utility for a specific organizational domain, provides a tutorial, and lists resources for the respective data analytic technique.

CRC Press
April 2024:314
Hb: 978-1-032-05277-9: **£140**
Pb: 978-1-032-05278-6: **£53.99**

* For full contents and more information, visit: www.routledge.com/9781032052786

Deep Learning based applications for Multimedia Processing Applications

Volume 1 and 2



Edited by **Uzair Aslam Bhatti, Huang Mengxing, Jingbing Li, Sibghat Ullah Bazai, Muhammad Aamir**

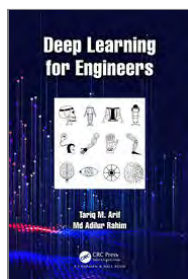
Divided into two volumes, Volume One begins by introducing the fundamental concepts of deep learning, providing readers with a solid foundation to understand its relevance in multimedia processing. Volumes Two delves into advanced topics such as convolutional neural networks, recurrent neural networks, and generative adversarial networks, explaining their unique capabilities in multimedia tasks. Readers will discover how deep learning techniques enable accurate and efficient image recognition, object detection, semantic segmentation, and image synthesis. The book also covers

video analysis techniques, including action recognition, video captioning, and video generation.

CRC Press
February 2024:764
Hb: 978-1-032-66585-6: **£160**

* For full contents and more information, visit: www.routledge.com/9781032665856

Deep Learning for Engineers



Tariq M. Arif, Md Adilur Rahim

As a comprehensive guideline for applying deep learning models in practical settings, this book features an easy-to-understand coding structure using Python and PyTorch with an in-depth explanation of four typical deep learning case studies on image classification, object detection, semantic segmentation, and image captioning. Science and engineering students, academic researchers, and industry professionals will find the contents useful.

Chapman & Hall
March 2024:168
Hb: 978-1-032-50473-5: **£82.99**
Pb: 978-1-032-51581-6: **£46.99**

* For full contents and more information, visit: www.routledge.com/9781032515816

Deep Learning for Multimedia Processing Applications

Volume One: Image Security and Intelligent Systems for Multimedia Processing



Edited by **Uzair Aslam Bhatti, Huang Mengxing, Jingbing Li, Sibghat Ullah Bazai, Muhammad Aamir**

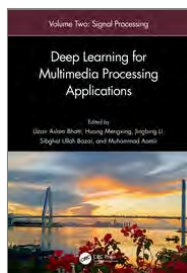
This book is a comprehensive guide that explores the revolutionary impact of deep learning techniques in the field of multimedia processing. Written for a wide range of readers, from students to professionals, this book offers a concise and accessible overview of the application of deep learning in various multimedia domains, including image processing, video analysis, audio recognition, and natural language processing. Divided into two volumes, Volume One begins by introducing the fundamental concepts of deep learning, providing readers with a solid foundation to understand its relevance in multimedia processing.

CRC Press
February 2024:314
Hb: 978-1-032-54824-1: **£99.99**

* For full contents and more information, visit: www.routledge.com/9781032548241

Deep Learning for Multimedia Processing Applications

Volume Two: Signal Processing and Pattern Recognition



Edited by **Uzair Aslam Bhatti, Huang Mengxing, Jingbing Li, Sibghat Ullah Bazai, Muhammad Aamir**

The book is a comprehensive guide that explores the revolutionary impact of deep learning techniques in the field of multimedia processing. Divided into two volumes, Volumes Two delves into advanced topics such as convolutional neural networks, recurrent neural networks, and generative adversarial networks, explaining their unique capabilities in multimedia tasks. Readers will discover how deep learning techniques enable accurate and efficient image recognition, object detection, semantic segmentation, and image synthesis. The book also covers video analysis techniques, including action recognition, video captioning, and video generation.

CRC Press
February 2024:458
Hb: 978-1-032-62334-4: **£99.99**

* For full contents and more information, visit: www.routledge.com/9781032623344

DevOps: A Journey from Microservice to Cloud Based Containerization



Hitesh Kumar Sharma, Anuj Kumar, Sangeeta Pant, Mangey Ram

Series: *River Publishers Series in Computing and Information Science and Technology*

Transitioning to DevOps requires a change in culture and mindset. At its simplest, DevOps is about removing the barriers between two traditionally siloed teams, development, and operations. In this book, we introduce the DevOps culture, and the tools and techniques under this technical cultural umbrella. We explain microservice, containers, Docker Container, Kubernetes, etc., and the significance of these in adopting the DevOps culture for successful software development.

River Publishers
January 2024:194
Hb: 978-8-770-22846-6: **£94.99**

* For full contents and more information, visit: www.routledge.com/9788770228466

Digital Health

A Primer



Nilmini Wickramasinghe

Series: Analytics and AI for Healthcare

Healthcare systems globally are grappling with how best to implement effective and efficient patient-centered care while simultaneously trying to contain runaway costs and provide high quality. This book explores the essential enabling role of digital health, taking a socio-technical perspective and looking at the key facets of technology, people and process in turn. The text introduces critical issues and is suitable reading for students, practitioners and researchers in digital health and all healthcare related domains.

Chapman & Hall

April 2024:324

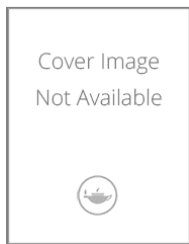
Hb: 978-1-032-33169-0: **£130**

Pb: 978-1-032-33168-3: **£44.99**

* For **full contents** and more information, visit: www.routledge.com/9781032331683

Digital Transformation in Your Manufacturing Business

A Made Smarter Guide



Will Kinghorn

This book will give you a straightforward guide to manufacturing technologies, examples of how they're used, as well as the tools and techniques you'll need to get started. Each technology is covered on a single page meaning you can understand it quickly and decide if it's worth you investigating it for your business. In addition to the book, the online resources will provide you with templates and examples to help you get started quickly, and at every stage there are suggestions for the key terms you need to find more information appropriate to your industry. Get started with making informed decisions, embracing technologies, and transforming your business

CRC Press

May 2024:168

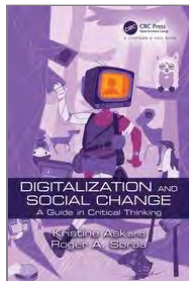
Hb: 978-1-032-64220-8: **£170**

Pb: 978-1-032-62624-6: **£42.99**

* For **full contents** and more information, visit: www.routledge.com/9781032626246

Digitalization and Social Change

A Guide in Critical Thinking



Kristine Ask, Roger Andre Søråa

Digitalization is shaping our everyday lives yet navigating its processes can feel like a trek into the unknown, where both the possibilities and the consequences of digitalization are unclear and difficult to grasp. Exploring how digitalization affects all aspects of our lives, from health to culture, this book aims to develop and strengthen the readers ability to think critically about such developments.

Chapman & Hall

December 2023:318

Hb: 978-1-032-26703-6: **£110**

Pb: 978-1-032-25891-1: **£42.99**

* For **full contents** and more information, visit: www.routledge.com/9781032258911

Dimensions of Intelligent Analytics for Smart Digital Health Solutions



Edited by Nilmini Wickramasinghe, Freimut Bodendorf, Mathias Kraus

Series: Analytics and AI for Healthcare

This title demystifies AI and analytics, upskilling individuals (healthcare professionals, hospital managers, consultants, researchers, students, and the population at large) around analytics and AI as it applies to healthcare. This work serves to introduce the critical issues in AI and analytics for healthcare for students, practitioners, and researchers.

Chapman & Hall

March 2024:452

Hb: 978-1-032-69973-8: **£130**

Pb: 978-1-032-69972-1: **£44.99**

* For **full contents** and more information, visit: www.routledge.com/9781032699721

Directing Game Animation

Building a Vision and a Team with Intent



Mike Jungbluth

Directing Game Animation: Building a Vision and a Team with Intent breaks down the process on how to create an intentional animation vision, that can be both unique and flexible. From defining the high-level experience, to breaking down tech needs, projecting a team size and empowering everyone to work together, this book will help to wrap your arms around a project's animation needs.

CRC Press

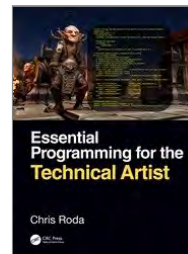
March 2024:240

Hb: 978-1-032-41087-6: **£105**

Pb: 978-1-032-41078-4: **£39.99**

* For **full contents** and more information, visit: www.routledge.com/9781032410784

Essential Programming for the Technical Artist



Chris Roda

This book is based on a successful curriculum designed to elevate technical artists, with no programming experience, up to essential programming competency as quickly as possible. Instead of abstract, theoretical problems, the curriculum employs familiar applications encountered in real production environments to demonstrate each lesson. Written with artists in mind, the book introduces novice programmers to the advantageous world of Python programming with relevant and familiar examples. Any digital artists, (not just technical artists), will find this book helpful in assisting with day-to-day production activities.

CRC Press

March 2024:256

Hb: 978-0-367-86009-7: **£145**

Pb: 978-0-367-82040-4: **£56.99**

* For **full contents** and more information, visit: www.routledge.com/9780367820404

3RD EDITION

Essentials of Computer Architecture



Douglas Comer

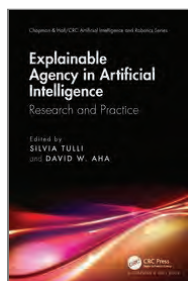
This easy-to-read textbook provides an introduction to computer architecture, focusing on the essential aspects of hardware that programmers need to know. Written from a programmer's point of view, this book covers the three key aspects of architecture: processors, physical and virtual memories, and input-output (I/O) systems. Suitable for a one-semester undergraduate course, this clear, concise, and easy-to-read textbook offers an ideal introduction to computer architecture for students studying computer programming.

Chapman & Hall
May 2024:536
Hb: 978-1-032-72719-6: **£74.99**

* For **full contents** and more information, visit: www.routledge.com/9781032727196

Explainable Agency in Artificial Intelligence

Research and Practice



Edited by **Silvia Tulli, David W. Aha**

Series: Chapman & Hall/CRC Artificial Intelligence and Robotics Series

This book focuses on a subtopic of Explainable AI (XAI) called Explainable Agency (EA), which involves producing records of decisions made during an agent's reasoning, summarizing its behavior in human-accessible terms, and providing answers to questions about specific choices and the reasons for them. Chapters explore the concept of endowing intelligent agents with explainable agency, which is crucial for agents to be trusted by humans in critical domains such as finance, self-driving vehicles, and military operations. Ultimately, this book aims to contribute to the successful partnership between humans and AI systems.

CRC Press
January 2024:192
Hb: 978-1-032-40913-9: **£130**
Pb: 978-1-032-39258-5: **£49.99**

* For **full contents** and more information, visit: www.routledge.com/9781032392585

Game AI Uncovered

Volume One



Edited by **Paul Roberts**

Game AI Uncovered: Volume One kicks off a brand-new series of books that focus on the development of artificial intelligence in video games. This volume brings together the collected wisdom, ideas, tricks and cutting-edge techniques from 20 of the top game AI professionals and researchers, from around the world. Beginners to the area of game AI, along with professional developers, will find a wealth of knowledge that will not only help in the development in your own games but will spark ideas for new approaches.

CRC Press
February 2024:214
Hb: 978-1-032-34850-6: **£120**
Pb: 978-1-032-34323-5: **£44.99**

* For **full contents** and more information, visit: www.routledge.com/9781032343235

Game Design Deep Dive

Soulslike



Joshua Bycer

For this entry in the Game Design Deep Dive series, it's Joshua Bycer takes a look at how the "soulslike" genre with its unique design, became popular over the 2010's and culminating with one of the bestselling games of 2022 with Elden Ring.

CRC Press
May 2024:200
Hb: 978-1-032-58439-3: **£94.99**
Pb: 978-1-032-58115-6: **£38.99**

* For **full contents** and more information, visit: www.routledge.com/9781032581156

5TH EDITION

Game Design Workshop

A Playcentric Approach to Creating Innovative Games



Tracy Fullerton

Award-winning author Tracy Fullerton demystifies the creative process with clear and accessible guidance on the formal, dramatic, and dynamic systems of game design. Using examples of classic and popular games, illustrations of design techniques, and refined exercises to strengthen your understanding of how game systems function, the book gives you the skills and tools necessary to create a compelling and engaging game. This updated 5th edition brings deeper coverage of playcentric design techniques, including setting emotion-focused experience goals and managing the design process to meet them.

A K Peters/CRC Press
April 2024:616
Hb: 978-1-032-60701-6: **£140**
Pb: 978-1-032-60700-9: **£48.99**

* For **full contents** and more information, visit: www.routledge.com/9781032607009

Generative Adversarial Networks in Practice



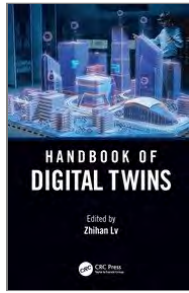
Mehdi Ghayoumi

Generative Adversarial Networks (GANs) in Practice is an all-inclusive resource that provides a solid foundation on GAN methodologies, their application to real-world projects, and their underlying mathematical and theoretical concepts. Prepare to deep dive into the captivating realm of GANs and experience the power of AI like never before with Generative Adversarial Networks (GANs) in Practice. This book brings together the theory and practical aspects of GANs in a cohesive and accessible manner, making it an essential resource for both beginners and experienced practitioners.

Chapman & Hall
December 2023:670
Hb: 978-1-032-24844-8: **£74.99**

* For **full contents** and more information, visit: www.routledge.com/9781032248448

Handbook of Digital Twins



Edited by **Zhihan Lv**

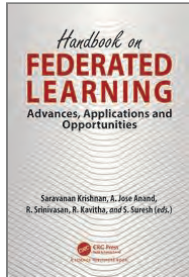
Over the last two decades, Digital Twins have become the intelligent representation of future development in industrial production and daily life. Consisting of over 50 chapters by more than 100 contributors, this comprehensive handbook explains the concept, architecture, design specification and application scenarios of Digital Twins. This book aims to provide an in-depth understanding and reference of Digital Twins to technical personnel in the field, students and scholars of related majors, and general readers interested in intelligent industrial manufacturing.

CRC Press
April 2024:1040
Hb: 978-1-032-54607-0: £205

* For full contents and more information, visit: www.routledge.com/9781032546070

Handbook on Federated Learning

Advances, Applications and Opportunities



Edited by **Saravanan Krishnan, A. Jose Anand, R. Srinivasan, R. Kavitha, S. Suresh**

Federated learning is a Distributed Machine Learning model that has been used in many applications today. Most edge devices can execute models with local dataset since their computation power is unutilized. Federated learning has widespread applications in Industry 4.0, Healthcare and Robotics, etc. It addresses the challenges in data privacy, data security, data access, etc. This book provides a comprehensive approach in federated learning for various aspects.

CRC Press
January 2024:362
Hb: 978-1-032-47162-4: £120

eBook: 978-1-003-38485-4

* For full contents and more information, visit: www.routledge.com/9781032471624

Human Activity and Behavior Analysis

Advances in Computer Vision and Sensors: Volume 1



Edited by **Md Atiqur Rahman Ahad, Sozo Inoue, Guillaume Lopez, Tahera Hossain**

Human Activity and Behavior Analysis relates to the field of vision and sensor-based human action or activity and behavior analysis and recognition. The book discusses topics such as action recognition, action understanding, gait analysis, gesture recognition, behavior analysis, emotion and affective computing, and related areas. This volume focuses on relevant activities in three main subject areas: Healthcare and Emotion, Mental Health, and Nurse Care Records.

CRC Press
March 2024:424
Hb: 978-1-032-44311-9: £99.99

* For full contents and more information, visit: www.routledge.com/9781032443119

Human Activity and Behavior Analysis

Advances in Computer Vision and Sensors: Volume 2



Edited by **Md Atiqur Rahman Ahad, Sozo Inoue, Guillaume Lopez, Tahera Hossain**

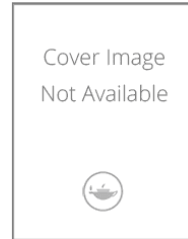
Human Activity and Behavior Analysis relates to the field of vision and sensor-based human action or activity and behavior analysis and recognition. The book includes a series of methodologies, surveys, relevant datasets, challenging applications, ideas, and future prospects. The book discusses topics such as action recognition, action understanding, gait analysis, gesture recognition, behavior analysis, emotion and affective computing, and related areas. This volume focuses on two main subject areas: Movement and Sensors, and Sports Activity Analysis.

CRC Press
March 2024:264
Hb: 978-1-032-59876-5: £99.99

* For full contents and more information, visit: www.routledge.com/9781032598765

Human Activity and Behavior Analysis

Advances in Computer Vision and Sensors: Volume 1 and Volume 2



Edited by **Md Atiqur Rahman Ahad, Sozo Inoue, Guillaume Lopez, Tahera Hossain**

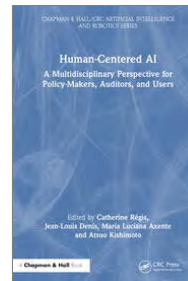
The book relates to the field of vision and sensor-based human action or activity and behavior analysis and recognition. Volume One in particular focuses on relevant activities in three main subject areas: Healthcare and Emotion, Mental Health, and Nurse Care Records. Volume Two focuses in particular on two main subject areas: Movement and Sensors, and Sports Activity Analysis. The editors are experts in these arenas and the contributing authors are drawn from high-impact research groups around the world.

CRC Press
March 2024:688
Hb: 978-1-032-64191-1: £160

* For full contents and more information, visit: www.routledge.com/9781032641911

Human-Centered AI

A Multidisciplinary Perspective for Policy-Makers, Auditors, and Users



Edited by **Catherine Régis, Jean-Louis Denis, Maria Luciana Axente, Atsuo Kishimoto**

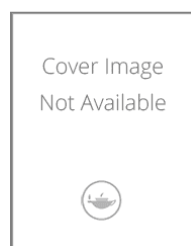
Series: *Chapman & Hall/CRC Artificial Intelligence and Robotics Series*

With 23 captivating chapters, this book delves deep into the realm of HCAI. In Section 1, it demystifies HCAI, exploring cutting-edge trends and approaches in its study, including the moral landscape of Large Language Models. Section 2 looks at how HCAI is viewed in different institutions—like the justice system, health system, and higher education—and how it could affect them. Section 3 offers practical insights and successful strategies to transform HCAI from theory to reality, for example, studying how using regulatory sandboxes could ensure the development of age-appropriate AI for kids.

Chapman & Hall
March 2024:304
Hb: 978-1-032-34162-0: £110
Pb: 978-1-032-34161-3: £44.99

* For full contents and more information, visit: www.routledge.com/9781032341613

Image Processing and Machine Learning



Erik Cuevas, Alma Rodriguez

Series: (ISC)2 Press

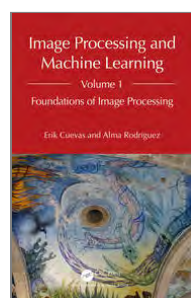
Image processing and machine learning are used in conjunction to analyze and understand images. Where image processing is used to pre-process images using techniques such as filtering, segmentation and feature extraction, machine learning learning algorithms are used to interpret the processed data through classification, clustering and object detection. This book serves as a textbook for students and instructors of image processing, covering the theoretical foundations and practical applications of some of the most prevalent image processing methods and approaches.

Chapman & Hall
February 2024:466
Hb: 978-1-032-66129-2: **£140**

* For **full contents** and more information, visit: www.routledge.com/9781032661292

Image Processing and Machine Learning, Volume 1

Foundations of Image Processing



Erik Cuevas, Alma Rodriguez

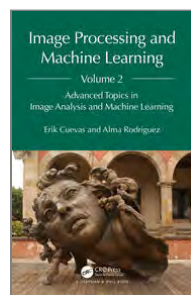
Image processing and machine learning are used in conjunction to analyze and understand images. Where image processing is used to pre-process images using techniques such as filtering, segmentation and feature extraction, machine learning learning algorithms are used to interpret the processed data through classification, clustering and object detection. This book serves as a textbook for students and instructors of image processing, covering the theoretical foundations and practical applications of some of the most prevalent image processing methods and approaches.

Chapman & Hall
February 2024:226
Hb: 978-1-032-23458-8: **£74.99**

* For **full contents** and more information, visit: www.routledge.com/9781032234588

Image Processing and Machine Learning, Volume 2

Advanced Topics in Image Analysis and Machine Learning



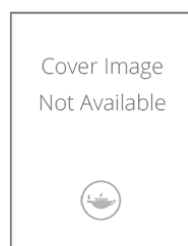
Erik Cuevas, Alma Rodriguez

Image processing and machine learning are used in conjunction to analyze and understand images. Where image processing is used to pre-process images using techniques such as filtering, segmentation and feature extraction, machine learning learning algorithms are used to interpret the processed data through classification, clustering and object detection. This book serves as a textbook for students and instructors of image processing, covering the theoretical foundations and practical applications of some of the most prevalent image processing methods and approaches.

Chapman & Hall
February 2024:240
Hb: 978-1-032-66032-5: **£74.99**

* For **full contents** and more information, visit: www.routledge.com/9781032660325

Image Processing Recipes in MATLAB



Oge Marques, Gustavo Benvenuto Borba

Series: Chapman & Hall/CRC Computer Science and Engineering Recipes Series

Leveraging the latest developments in MATLAB and its image processing toolbox, this 'cookbook' is a collection of 30 practical recipes for image processing, ranging from foundational techniques to recently published algorithms. Presented in a clear and meaningful sequence, these recipes are prepared with the reader in mind, allowing one to focus in on particular topics or read as a whole from cover to cover. The book serves as a concise and readable practical reference to deploy image processing pipelines in MATLAB quickly

and efficiently.

Chapman & Hall
May 2024:280
Hb: 978-0-367-77197-3: **£58.99**
Pb: 978-0-367-76713-6: **£38.99**

* For **full contents** and more information, visit: www.routledge.com/9780367767136

Innovation District Planning

Concept, Framework, Practice



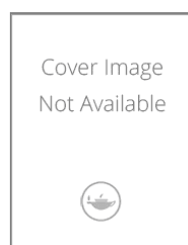
Tan Yigitcanlar, Surabhi Pancholi, Niussha Esmaeilpoorabi, Rosemary Adu-McVie

This book aims to fill the knowledge gap on how to plan, develop and manage innovation districts, that are competitive in terms of both productivity and quality of living, justifying the massive investment put into place and at the same time doing both in such a delicate and harmonious way. The book serves as a repository for scholars, researchers, postgraduate and undergraduate students.

Chapman & Hall
March 2024:560
Hb: 978-1-032-65742-4: **£59.99**
Pb: 978-1-032-65701-1: **£44.99**

* For **full contents** and more information, visit: www.routledge.com/9781032657011

Innovation in the University 4.0 System based on Smart Technologies



Edited by Shashi Kant Gupta, Joanna Rosak-Szyrocka

This text presents a comprehensive analysis of mathematical formulations for proving the effectiveness of artificial intelligence in education and investigates the possibilities for integrating advanced artificial intelligence algorithms. It presents an empirical analysis of the impact of information technology in the education system.

Chapman & Hall
May 2024:264
Hb: 978-1-032-54467-0: **£120**

* For **full contents** and more information, visit: www.routledge.com/9781032544670

Intelligent Computing on IoT 2.0, Big Data Analytics, and Block Chain Technology

Cover Image
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Edited by **Mohammad S. Obaidat, Padmalaya Nayak, Niranjan Ray**

The book is designed as a reference text and explores the concepts and techniques of IoT, AI, and blockchain. It also discusses the possibility of applying blockchain for providing security in various domains. The specific highlight of this book is focused on the application of integrated technologies in enhancing data models, better insights and discovery, intelligent predictions, smarter finance, smart retail, global verification, transparent governance, and innovative audit systems.

Chapman & Hall
May 2024:424
Hb: 978-1-032-35123-0: **£145**

* For **full contents** and more information, visit: www.routledge.com/9781032351230

Intelligent Security Solutions for Cyber-Physical Systems

Cover Image
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Edited by **Vandana Mohindru Sood, Yashwant Singh, Bharat Bhargava, Sushil Kumar Narang**

Series: Chapman & Hall/CRC Cyber-Physical Systems

Cyber-physical system (CPS) is a computer system in which a mechanism is controlled or monitored by computer-based algorithms and involves transdisciplinary approaches, merging theory of cybernetics, mechatronics, design, and process science. This text mainly concentrates on offering a foundational theoretical underpinning, and a comprehensive and coherent review of intelligent security solutions for Cyber-physical systems.

CRC Press
April 2024:304
Hb: 978-1-032-52152-7: **£120**

* For **full contents** and more information, visit: www.routledge.com/9781032521527

Intelligent Systems and Industrial Internet of Things for Sustainable Development

Cover Image
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Edited by **C. Kishor Kumar Reddy, P. R Anisha, Marlia Mohd Hanafiah, Srinath Doss, Kari Lippert**

Series: Digital Technologies and Innovative Solutions for Sustainable Development

The book studies emerging and sustaining technologies for applications of Industry 5.0 to develop technological solutions to address numerous real-life challenges to solve sustainable development-related issues. It identifies limitations, pitfalls, and open research questions in industry 5.0, discusses real-time problems, and challenges with equivalent solutions with a focus on sustainable

growth to develop, humanization and environmentally friendly intelligent system applications. It analyses applications enabled by Industry 5.0 such as healthcare, supply chain, smart framing, remote sensing, production in manufacturing, and cloud manufacturing.

Chapman & Hall
April 2024:368
Hb: 978-1-032-64091-4: **£120**

* For **full contents** and more information, visit: www.routledge.com/9781032640914

2ND EDITION

Intermediate C Programming



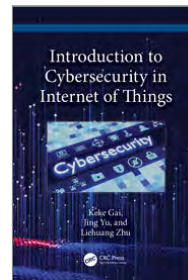
Yung-Hsiang Lu, George K. Thiruvathukal

Revised for a new second edition, *Intermediate C Programming* provides a stepping-stone for intermediate-level students to go from writing short programs to writing real programs well. It shows students how to identify and eliminate bugs, write clean code, share code with others, and use standard Linux-based tools, such as `ddd` and `valgrind`. Including additional student and instructor resources available online, this book is particularly appealing as a classroom resource.

CRC Press
February 2029:480
Hb: 978-1-032-19174-4: **£110**
Pb: 978-1-032-18981-9: **£44.99**

* For **full contents** and more information, visit: www.routledge.com/9781032189819

Introduction to Cybersecurity in Internet of Things



Keke Gai, Jing Yu, Liehuang Zhu

This book addresses the security challenges faced by the rapidly growing Internet of Things (IoT) industry, including the possible threats and risks arising from its complex architecture. It covers topics ranging from IoT components and common IoT attacks to technical concepts such as distributed storage, data transmission, and data protection mechanisms like cryptography and wireless network privacy settings. By exploring the future of cybersecurity in the IoT industry with insights into the importance of big data and threats of data mining techniques, the book will be an essential resource for anyone interested in or working in the rapidly evolving field of IoT security.

CRC Press
March 2024:640
Hb: 978-1-032-69039-1: **£130**

* For **full contents** and more information, visit: www.routledge.com/9781032690391

Introduction to Game Programming using Processing

For Designers, Artists, Players, Non-Tech People and Everybody Else



Daniel Cermak-Sassenrath

This is an introductory textbook focusing on games (specifically interaction and graphics) as a pathway into programming. It empowers its readers to do basic programming, prototyping, creating games and other highly interactive applications, all from scratch and without any prior programming knowledge. This book is a great resource for students and aspiring professionals looking for an approachable entry into game programming.

CRC Press
May 2024:304
Hb: 978-1-032-38622-5: **£120**
Pb: 978-1-032-38613-3: **£44.99**

* For **full contents** and more information, visit: www.routledge.com/9781032386133

IoT, Machine Learning and Data Analytics for Smart Healthcare



Edited by **Mourade Azrou, Jamal Mabrouki, Azidine Guezzaz, Sultan Ahmad, Shakir Khan, Said Benkirane**

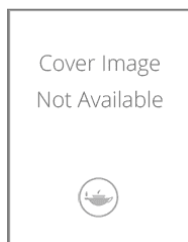
Machine Learning, Internet of Things (IoT) and data analytics are new and fresh technologies that are being increasingly adopted. This book positions itself at the forefront of this movement, exploring the beneficial applications of these new technologies and how they are gradually creating a smart healthcare system. This book is a useful overview for scientists, researchers, practitioners and academics specialising in the field of intelligent healthcare, as well as containing additional appeal as a reference book for undergraduate and graduate students

CRC Press
March 2024:106
Hb: 978-1-032-55107-4: **£89.99**

* For full contents and more information, visit: www.routledge.com/9781032551074

IPv6 Network Slicing

Offering New Experience for Industries



Zhenbin Li, Jie Dong, Yawei Zhang, Xinzong Zeng

Series: Data Communication Series

This book is an essential guide to IPv6 network slicing. It covers both the fundamentals and cutting-edge technologies of IPv6 network slicing, and provides insights into future industry developments. It is a must-read for professional engineers involved in network planning, design, and technology support. Researchers and students in information and communication technology and communication system design will also find it useful.

CRC Press
March 2024:472
Hb: 978-1-032-69735-2: **£130**

* For full contents and more information, visit: www.routledge.com/9781032697352

Jumping Computation

Updating Automata and Grammars for Discontinuous Information Processing



Alexander Meduna, Zbyněk Křivka

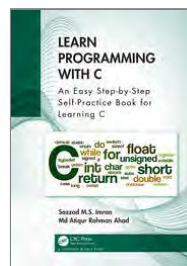
Jumping Computation: Updating Automata and Grammars for Discontinuous Information Processing is primarily a theoretically oriented treatment of jumping automata and grammars, covering all essential theoretical topics concerning them, including their power, properties, and transformations. From a practical viewpoint, it describes various concepts, methods, algorithms, techniques, case studies and applications based upon these automata and grammars.

CRC Press
March 2024:296
Hb: 978-0-367-62093-6: **£145**
Pb: 978-0-367-63479-7: **£56.99**

* For full contents and more information, visit: www.routledge.com/9780367634797

Learn Programming with C

An Easy Step-by-Step Self-Practice Book for Learning C



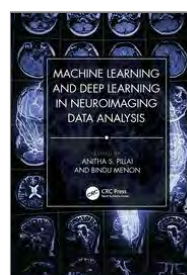
Sazzad M.S. Imran, Md Atiqur Rahman Ahad

Authored by two standout professors in the fields of Computer Science and Technology with extensive experience in instructing, Learn Programming with C is a comprehensive and accessible guide to programming with one of the most popular languages. Written for the novice C programmer, especially undergraduate and graduate students, this book's line-by-line explanation of code and succinct writing style makes it an excellent companion for classroom teaching, learning and programming labs.

Chapman & Hall
January 2024:580
Hb: 978-1-032-29908-2: **£150**
Pb: 978-1-032-28355-5: **£59.99**

* For full contents and more information, visit: www.routledge.com/9781032283555

Machine Learning and Deep Learning in Neuroimaging Data Analysis



Edited by **Anitha S. Pillai, Bindu Menon**

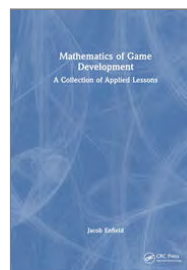
This book explores how ML/DL can assist neurologists in identifying, classifying or predicting neurological problems that require neuroimaging. Bringing together both AI experts as well as medical practitioners.

CRC Press
January 2024:160
Hb: 978-1-032-19068-6: **£89.99**

* For full contents and more information, visit: www.routledge.com/9781032190686

Mathematics of Game Development

A Collection of Applied Lessons



Jacob Enfield

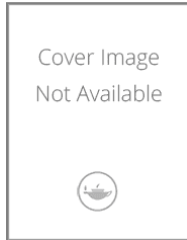
This introductory textbook introduces students to mathematical concepts and helps them to understand how they apply to the field of game development. The book covers mathematical concepts commonly used in game development while providing application of the concepts in the industry-standard Unity game engine. This book will be ideal for any game development student looking to gain a grounding in the most relevant mathematical concepts to support their trade. It will also be useful as a stepping stone to digesting more advanced mathematical concepts for game development.

CRC Press
March 2024:320
Hb: 978-1-032-70142-4: **£140**
Pb: 978-0-367-52771-6: **£52.99**

* For full contents and more information, visit: www.routledge.com/9780367527716

Metaheuristic Algorithms

Theory and Practice



Gai-Ge Wang, Xiaoqi Zhao, Keqin Li

This book introduces the theory and applications of metaheuristic algorithms. It also provides methods for solving practical problems such as software engineering problems, image recognition problems, problems in video networks, and problems in the ocean. Rich in examples, this book will be a great resource for students, scholars, and those interested in metaheuristic algorithms, as well as professional practitioners and researchers working on related topics.

CRC Press
April 2024:344
Hb: 978-1-032-71404-2: **£59.99**

* For full contents and more information, visit: www.routledge.com/9781032714042

Privacy and Security for Mobile Crowdsourcing



Shabnam Sodagari

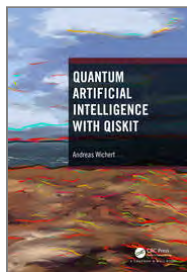
Series: River Publishers Rapids Series in Digital Security and Forensics

This concise guide to mobile crowdsourcing and crowdsensing vulnerabilities and countermeasures walks readers through a series of examples, discussions, tables, initiative figures, and diagrams to present to them security and privacy foundations and applications. This book is accessible to readers in mobile computer/communication industries as well as academic staff and students in computer science, electrical engineering, telecommunication systems, business information systems, and crowdsourced mobile app developers.

River Publishers
December 2023:142
Hb: 978-8-770-22861-9: **£94.99**

* For full contents and more information, visit: www.routledge.com/9788770228619

Quantum Artificial Intelligence with Qiskit



Andreas Wichert

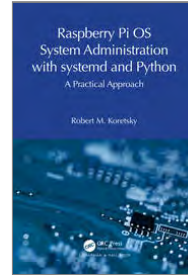
This book provides a cohesive overview of the field of QAI, providing the tools for readers to create and manipulate quantum programs on devices as accessible as a laptop computer. Introducing symbolical quantum algorithms, sub symbolical quantum algorithms and quantum Machine Learning (ML) algorithms, this book explains each process step-by-step with associated QISKIT listings.

Chapman & Hall
August 2025:334
Hb: 978-1-032-44897-8: **£74.99**
Pb: 978-1-032-44898-5: **£74.99**

* For full contents and more information, visit: www.routledge.com/9781032448985

Raspberry Pi OS System Administration with systemd and Python

A Practical Approach



Robert M. Koretsky

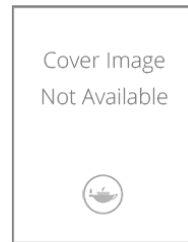
The second in a new series exploring the basics of Raspberry Pi Operating System administration, this instalment builds on the insights provided in Volume 1 to provide a compendium of easy-to-use and essential Raspberry Pi OS system administration for the novice user, with specific focus on Python and Python3.

Chapman & Hall
December 2023:332
Hb: 978-1-032-59689-1: **£110**
Pb: 978-1-032-59688-4: **£44.99**
eBook: 978-1-003-45580-6

* For full contents and more information, visit: www.routledge.com/9781032596884

Raspberry Pi OS Text Editors, git, and LXC

A Practical Approach



Robert M Koretsky

Series: Raspberry Pi OS System Administration with systemd

The third volume in a new series exploring the basics of Raspberry Pi Operating System administration, this installment builds on the insights provided in Volumes 1 and 2 to provide a compendium of easy-to-use and essential Raspberry Pi OS system administration for the novice user, with specific focus on Text Editors, git/GitHub and LXC/LXD. This book is aimed at students and practitioners looking to maximise their use of the Raspberry Pi OS. With plenty of practical examples, projects and exercises.

Chapman & Hall
May 2024:278
Hb: 978-1-032-59690-7: **£110**
Pb: 978-1-032-59691-4: **£44.99**

* For full contents and more information, visit: www.routledge.com/9781032596914

Recent Advances in Computing Sciences

Proceedings of RACS 2022



Edited by **Sophiya Sheikh, Manmohan Sharma, Amar Singh**

The main objective of this conference is to provide a common platform for academia and industry to discuss varioustechnological challenges and share cognitive thoughts. It provided a thought-provoking platform to discuss anddisseminate novel solutions for real-world problems in a dynamic and changing technological environment. The mainsuccess of RACS-2022 is to give an opportunity for the participants to enhance their knowledge of recent computingtechnologies.

CRC Press
December 2023:344
Pb: 978-1-032-52195-4: **£38.99**
eBook: 978-1-003-40557-3

* For full contents and more information, visit: www.routledge.com/9781032521954

3RD EDITION

Rig it Right!

Maya Animation Rigging Concepts

**Tina O'Hailey**

Rig it Right! breaks down rigging so that you can achieve a fundamental understanding of the concept. The author will get you up and rigging with step-by-step tutorials covering multiple animation control types, connection methods, interactive skinning, BlendShapes, edgeloops, and joint placement, to name a few. Rig it Right! will take you to a more advanced level where you will learn how to create stretchy rigs with invisible control systems and use that to create your own types of rigs.

CRC Press
March 2024:312
Hb: 978-1-032-55524-9: £105
Pb: 978-1-032-55523-2: £39.99

* For full contents and more information, visit: www.routledge.com/9781032555232

Shaping the Future of IoT with Edge Intelligence

How Edge Computing Enables the Next Generation of IoT Applications

*Edited by* **Rute C. Sofia, John Soldatos***Series: River Publishers Series in Communications and Networking*

This book presents the technologies that empower edge intelligence, along with their use in novel IoT solutions. Specifically, it presents how 5G/6G, Edge AI, and Blockchain solutions enable novel IoT-based decentralized intelligence use cases at the edge of the cloud/edge/IoT continuum. Emphasis is placed on presenting how these technologies support a wide array of functional and non-functional requirements spanning latency, performance, cybersecurity, data protection, real-time performance, energy efficiency, and more.

River Publishers
January 2024:460
Hb: 978-8-770-04027-3: £110

* For full contents and more information, visit: www.routledge.com/9788770040273

Small-scale Computational Vibration of Carbon Nanotubes: Composite Structure

Muzamal Hussain*Series: River Publishers Series in Mathematical, Statistical and Computational Modelling for Engineering*

This book presents orthotropic vibration modeling and analysis of carbon nanotubes (CNTs) which be helpful in applications such as oscillators and in non-destructive testing, and also vibrations characteristics of armchair double-walled CNT by means of nonlocal elasticity shell model. The nonlocal shell model is established by inferring the nonlocal elasticity equations in to Kelvin's theory, which is our particular motivation. The suggested method to investigate the solution of fundamental Eigen relations is wave propagation, which is a well-known and efficient technique to develop the fundamental frequency equations.

River Publishers
March 2024:200
Hb: 978-8-770-22865-7: £94.99

* For full contents and more information, visit: www.routledge.com/9788770228657

Soft Power for the Journey

The Life of a STEM Trailblazer

**Sandra Johnson**

This is a story of an African American woman working at the highest levels in STEM. Dr. Sandra K. Johnson earned a Ph.D. in electrical and computer engineering from Rice University in May 1988, the first black woman to do so. The story narrates the inextricable human dimension of dealing with various personal and familial challenges that people naturally encounter—with the highs and lows, and exhilarations and disappointments. It is a heartwarming, compelling story designed to encourage, be aspirational and awe-inspiring, and uplift the spirits of a broad and diverse readership.

CRC Press
May 2024:344
Hb: 978-1-032-72428-7: £58.99
Pb: 978-1-032-72425-6: £22.99

* For full contents and more information, visit: www.routledge.com/9781032724256

Software Design by Example

A Tool-Based Introduction with Python

**Greg Wilson**

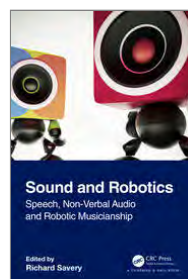
The best way to learn design in any field is to study examples, Software Design by Example: A Tool-Based Introduction with Python therefore builds small versions of the things programmers use in order to demystify them and give some insights into how experienced programmers think. Features:• Teaches software design by showing programmers how to build the tools they use every day. Each chapter includes exercises to help readers check and deepen their understanding. All the example code can be downloaded, re-used, and modified under an open license

Chapman & Hall
April 2024:334
Hb: 978-1-032-72525-3: £110
Pb: 978-1-032-72521-5: £44.99

* For full contents and more information, visit: www.routledge.com/9781032725215

Sound and Robotics

Speech, Non-Verbal Audio and Robotic Musicianship

*Edited by* **Richard Savery**

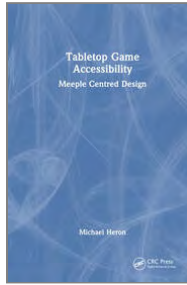
Sound in human-robot interaction currently encompasses a wide range of approaches and methodologies that is not easily classified, analyzed, or compared between projects. This edited book covers the state-of-the-art in sound and robotics aiming to collect existing approaches in a combined volume. This book is primarily aimed at HRI researchers, ranging from those who have never used sound to those who are very experienced with sound.

Chapman & Hall
December 2023:357
Hb: 978-1-032-34084-5: £130
Pb: 978-1-032-34083-8: £44.99

* For full contents and more information, visit: www.routledge.com/9781032340838

Tabletop Game Accessibility

Meeples Centred Design



Michael James Heron

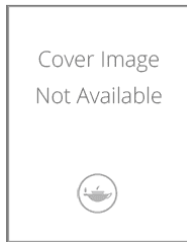
This foundational resource on the topic of tabletop game accessibility provides actionable guidelines on how to make games accessible for people with disabilities. The book contextualizes this practical guidance within a philosophical framework of how the relatively abled can ethically address accessibility issues within game design. This book will be of great interest to all professional tabletop and boardgame designers, as well as digital game designers and designers of other physical products.

CRC Press
April 2024:232
Hb: 978-1-032-54147-1: **£120**
Pb: 978-1-032-54159-4: **£44.99**

* For **full contents** and more information, visit: www.routledge.com/9781032541594

Technological Advancement in Internet of Medical Things and Blockchain for Personalized Healthcare

Applications and Use Cases



Edited by **A Prasanth, Lakshmi D, Rajesh Kumar Dhanaraj, Balamurugan Balusamy, Sherimon P C**

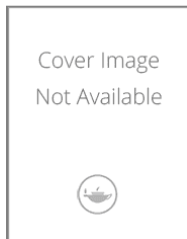
Primarily written for graduate students and academic researchers working in computer science, engineering, biomedical and electrical engineering, this text presents advanced enabling technologies of the internet of medical things in personalized healthcare. It discusses topics such as a smart contract-based trust management framework for enhancing security in the internet of medical things environment, and an access control mechanism for blockchain-enabled internet of medical things. It also includes case studies on connecting patient-centric blockchains with multilayer networks and crypto hash-based

malware detection in the internet of medical things framework.

CRC Press
April 2024:260
Hb: 978-1-032-52154-1: **£89.99**

* For **full contents** and more information, visit: www.routledge.com/9781032521541

The Application of Emerging Technology and Blockchain in the Insurance Industry



Edited by **Kiran Sood, Simon Grima, Ganga Sharma, Balamurugan Balusamy**

Series: River Publishers Series in Management Sciences and Engineering

This book is a unique guide to the disruptions, innovations, and opportunities that technology provides the insurance sector and acts as an academic/industry-specific guide for creating operational effectiveness, managing risk, improving financials, and retaining customers. It also contains the current philosophy and actionable strategies from a wide range of contributors who are experts on the

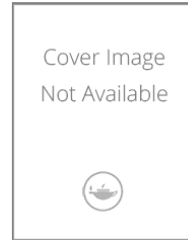
topic. It logically explains why traditional ways of doing business will soon become irrelevant and therefore provides an alternative choice by embracing technology.

River Publishers
February 2024:396
Hb: 978-8-770-04006-8: **£99.99**

* For **full contents** and more information, visit: www.routledge.com/9788770040068

The Applied Genomic Epidemiology Handbook

A Practical Guide to Leveraging Pathogen Genomic Data in Public Health



Allison Black, Gytis Dudas

Series: Chapman & Hall/CRC Computational Biology Series

This book provides rationale, theory, and implementation guidance to help public health practitioners incorporate pathogen genomic data analysis into their investigations. During the SARS-CoV-2 pandemic, viral whole genome sequences were generated, analyzed, and shared at an unprecedented scale. This wealth of data posed both tremendous opportunities and challenges; the data could be used to support varied parts of the public health response but could be hard for much of the public health workforce to analyze and interpret, given a historical lack of experience working with pathogen genomic

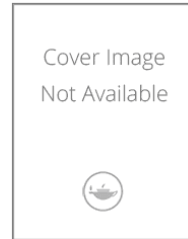
data.

Chapman & Hall
March 2024:168
Hb: 978-1-032-53029-1: **£120**
Pb: 978-1-032-53026-0: **£44.99**

* For **full contents** and more information, visit: www.routledge.com/9781032530260

The Evolution of an Invisible Science

From Cybernetics to Awareness Robots



Sandor M Veres

Series: River Publishers Series in Automation, Control and Robotics

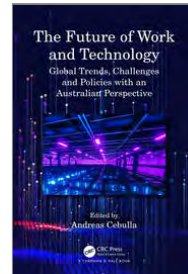
This book provides insights into the ideas of dynamics and their control for those with a background in secondary education only. The book highlights that artificial neural networks, which are today in great demand in artificial intelligence (AI), such as deep learning, first emerged in learning control systems and classification for decision making by computers, which in itself has become part of computer controlled systems.

River Publishers
March 2024:200
Hb: 978-8-770-22836-7: **£94.99**

* For **full contents** and more information, visit: www.routledge.com/9788770228367

The Future of Work and Technology

Global Trends, Challenges and Policies with an Australian Perspective



Edited by **Andreas Cebulla**

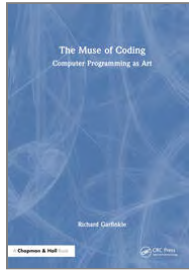
The book examines how global technological advances shape the way we work and allocate work today and how we might do so in the future, exploring advances in robotics, artificial intelligence, green technology, and implications for workforce skills and future welfare. It uses Australia as a case study, contrasting the country's experience to those elsewhere. The book should be of interest to anyone studying and wishing to better understand what work might look like in the future and how we might prepare for likely changes.

Chapman & Hall
December 2023:244
Hb: 978-1-032-49428-9: **£115**
Pb: 978-1-032-49425-8: **£44.99**
eBook: 978-1-003-39375-7

* For **full contents** and more information, visit: www.routledge.com/9781032494258

The Muse of Coding

Computer Programming as Art



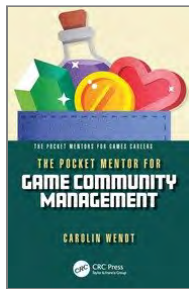
Richard Garfinkle

The Muse of Coding gives students and experienced programmers a way to see coding as an art and themselves as artists whose personal views, experiences and ways of thinking can make their programs better for themselves and their users. Not confined to a single language or style of coding, this book provides a widely applicable framework for people to learn what languages and styles work best for them at present and as the field evolves. It can be used as a classroom text or for personal study and enrichment.

Chapman & Hall
March 2024:300
Hb: 978-1-032-60607-1: **£110**
Pb: 978-1-032-60606-4: **£44.99**

* For **full contents** and more information, visit: www.routledge.com/9781032606064

The Pocket Mentor for Game Community Management



Carolin Wendt

Series: The Pocket Mentors for Games Careers

Want to work in community management in the games industry? Then this is the book is for you. Filled with practical advice and real-world examples, this guide offers a comprehensive introduction to building and nurturing vibrant gaming communities, fostering engagement, and handling challenges along the way. This book will be of great interest to all beginner and aspiring games community managers.

CRC Press
December 2023:122
Hb: 978-1-032-31597-3: **£89.99**
Pb: 978-1-032-31596-6: **£29.99**

* For **full contents** and more information, visit: www.routledge.com/9781032315966

The Theory and Practice of Writing Music for Games



Steve Horowitz, Scott Looney

Based on years of working in the field, as well as teaching the subject at colleges and universities, The Theory and Practice of Writing Music for Games is an invaluable resource for those looking for a classroom tested, directed course of study. Each chapter builds on the next and guides the reader step by step through the essentials. Along with all the theory, a multitude of clearly defined hands-on projects and exercises are included, designed to prepare the reader to go out into the field with a complete understanding of the art and craft of music composition for games and visual media.

CRC Press
January 2024:244
Hb: 978-1-032-54008-5: **£150**
Pb: 978-1-032-53863-1: **£59.99**
eBook: 978-1-003-41472-8

* For **full contents** and more information, visit: www.routledge.com/9781032538631

Thematic Integration in Board Game Design



Sarah Shipp

Series: CRC Press Guides to Tabletop Game Design

Thematic Integration in Board Game Design examines the design and integration of theme from the standpoints of technical structure, narrative building, and the design process. This book presents multiple approaches to designing theme as well as developing and replacing themes in existing projects.

CRC Press
January 2024:176
Hb: 978-1-032-59244-2: **£115**
Pb: 978-1-032-58405-8: **£44.99**

* For **full contents** and more information, visit: www.routledge.com/9781032584058

Tiny Android Projects Using Kotlin



Denis Panjuta, Loveth Nwokike

In today's fast-paced world, Android development is a rapidly evolving field that requires regular updates to keep up with the latest trends and technologies. Tiny Android Projects Using Kotlin is an excellent resource for developers who want to learn to build Android applications using the latest tools and frameworks. With Kotlin being the most preferred language for Android development, this book provides a practical, hands-on approach to learning the language and building high-quality Android apps using Kotlin, XML, and Jetpack Compose.

Chapman & Hall
February 2024:390
Hb: 978-1-032-62251-4: **£115**
Pb: 978-1-032-60687-3: **£44.99**

* For **full contents** and more information, visit: www.routledge.com/9781032606873

Transcending Imagination

Artificial Intelligence and the Future of Creativity



Alexander Manu

Series: Chapman & Hall/CRC Artificial Intelligence and Robotics Series

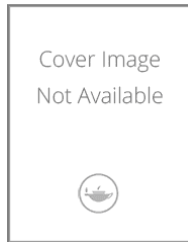
Transcending Imagination is a vision into a new world of artifacts of beauty whose intention is articulated by a human and is manifested by a neural network. The book examines the potential for AI to both enhance and transform the creative process, exploring the impact it will have on the arts, design, entertainment, and in the education of artists and designers.

Chapman & Hall
April 2024:256
Hb: 978-1-032-58453-9: **£115**
Pb: 978-1-032-58402-7: **£44.99**

* For **full contents** and more information, visit: www.routledge.com/9781032584027

Transformative AI

Responsible, Transparent, and Trustworthy AI systems



Ahmed Banafa

Series: River Publishers Series in Computing and Information Science and Technology

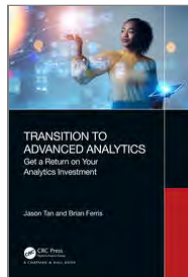
Transformative AI provides a comprehensive overview of the latest trends, challenges, applications, and opportunities in the field of Artificial Intelligence. The book covers the state of the art in AI research, including machine learning, natural language processing, computer vision, and robotics, and explores how these technologies are transforming various industries and domains, such as healthcare, finance, education, and entertainment. The book also addresses the challenges that come with the widespread adoption of AI, including ethical concerns, bias, and the impact on jobs and society.

River Publishers
April 2024:200
Hb: 978-8-770-04019-8: **£94.99**

* For full contents and more information, visit: www.routledge.com/9788770040198

Transition to Advanced Analytics

Get a Return on Your Analytics Investment



Jason Tan, Brian Ferris

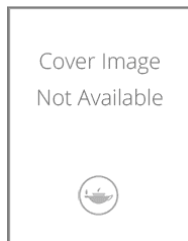
This book focuses on how to embed advanced analytics directly into daily business operations and complement an enterprise system. The title also provides a step-by-step implementation framework for CDAOs to develop their advanced analytics capabilities and in tandem with legacy IT systems.

Chapman & Hall
April 2024:170
Hb: 978-1-032-52755-0: **£59.99**
Pb: 978-1-032-52754-3: **£44.99**

* For full contents and more information, visit: www.routledge.com/9781032527543

Using Metering to Perform Energy Management

Performing Data Analytics via the Metering System



George "Buster" Barksdale, Kecia K Pierce

Series: River Publishers Series in Energy Management

This book covers many helpful analysis tools and processes to assist energy managers (EMs) administer their energy program through their meter management system (MMS). These tools and the corresponding techniques offer opportunities for the EM to optimize their time. The book covers many instructional areas that are, for the most part, only offered by consulting groups and software vendors as services. Those two groups offer their services for fees and therefore do not publish their ideas or best practices for commercial use.

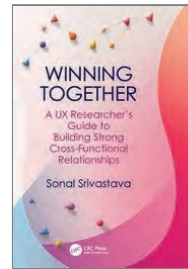
Software vendors provide software analytics whose functional aspects are addressed by our descriptions of the essential tasks in each chapter.

River Publishers
February 2024:200
Hb: 978-8-770-22838-1: **£110**

* For full contents and more information, visit: www.routledge.com/9788770228381

Winning Together

A UX Researcher's Guide to Building Strong Cross-Functional Relationships



Sonal Srivastava

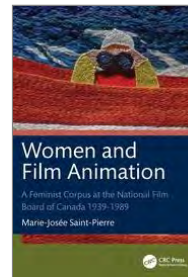
UX Research, the key to comprehending users' behaviors, motivations, and preferences for developing delightful experiences, thrives on effective teamwork and collaboration. Key Features: Includes a comprehensive selection of ready-to-use templates Incorporates insights and advice from cross-functional stakeholders Offers a wide range of strategies tailored to various expertise levels, catering to both novice and advanced practitioner

CRC Press
December 2023:146
Hb: 978-1-032-48836-3: **£110**
Pb: 978-1-032-48835-6: **£42.99**

* For full contents and more information, visit: www.routledge.com/9781032488356

Women and Film Animation

A Feminist Corpus at the National Film Board of Canada 1939-1989



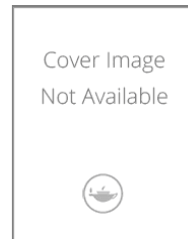
Marie-Josée Saint-Pierre

The creations of female animation filmmakers are recognized all over the world while being, paradoxically, unknown to the general public. Women and Film Animation: A Feminist Corpus at the National Film Board of Canada 1939-1989 brings out of the shadows the work of true pioneers by presenting and analyzing, from a resolutely feminist perspective, the works they have conceived within the National Film Board of Canada (NFB).

CRC Press
March 2024:248
Hb: 978-1-032-69439-9: **£130**
Pb: 978-1-032-68536-6: **£52.99**

* For full contents and more information, visit: www.routledge.com/9781032685366

Zero-trust – An Introduction



Tom Madsen

Series: River Publishers Rapids Series in Digital Security and Forensics

The book provides you with information on how to implement and manage a zero-trust architecture across these different layers of an infrastructure. It is an introduction to the overall purpose of zero-trust and the benefits that zero-trust can bring to an infrastructure, across many different technologies. Zero-trust is not a product, but a way of thinking about design and architecture. Cisco and Microsoft are used as the technology vendors, but the steps and information are equally applicable to other technology vendors.

River Publishers
January 2024:134
Pb: 978-8-770-22853-4: **£44.99**

* For full contents and more information, visit: www.routledge.com/9788770228534

Advances in Emerging Financial Technology and Digital Money



Edited by **Yassine Maleh, Justin Zhang, Abderrahim Hansali**

Advances in Emerging Financial Technology and Digital Money provide a platform for collective reflection, bringing together institutions, policymakers, digital and financial service providers, professionals, and academics from various disciplines. The aim is to clarify the challenges, opportunities, and socio-economic impacts of innovations in finance and technology on citizens and businesses in Morocco, Africa, and worldwide. This comprehensive collection offers valuable insights into the current state and prospects of financial technology and digital money.

CRC Press
March 2024:416
Hb: 978-1-032-66744-7: £110

* For full contents and more information, visit: www.routledge.com/9781032667447

Advances in Technological Innovations in Higher Education

Theory and Practices



Edited by **Adarsh Garg, B V Babu, Valentina Emilia Balas**

Series: Innovations in Intelligent Internet of Everything (IoE)

The technology evolution in education can no longer be apprehended simply by looking at the use of computers and networks. Technology is not just a supplementary tool to the conventional method of education. Education has to undergo a complete transformation with technological innovations for sustainability of quality education as a system and not in silos. The sustainability in education also necessitates a more workable strategy to realize socially viable educational policies and practices which can emphasize more on personalized learning.

CRC Press
March 2024:288
Hb: 978-1-032-45380-4: £110

* For full contents and more information, visit: www.routledge.com/9781032453804

AI and IoT Technology and Applications for Smart Healthcare Systems



Edited by **Alex Khang**

Series: Advances in Computational Collective Intelligence

Covering, methodologies, technologies, approaches, models, frameworks, theory, and practice, this book examines how to meet the challenges associated with applying AI-collaborative IoT technology as well as Big Data in the design and implementation of advanced infrastructure for the smart healthcare system. This book targets a mixed audience of students, engineers, scholars, researchers, academics and professionals who are learning, researching, and working in the field of healthcare.

Auerbach Publications
May 2024:456
Hb: 978-1-032-68490-1: £270
Pb: 978-1-032-67964-8: £120

* For full contents and more information, visit: www.routledge.com/9781032679648

AI in Wireless for Beyond 5G Networks



Edited by **Sukhdeep Singh, Yulei Wu, Mohan Rao GNS, Kaustubh Joshi, Payam Barnaghi, Madhan Raj Kanagarathinam**

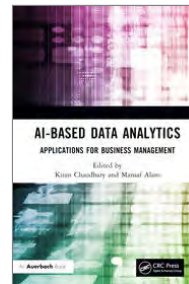
AI in Wireless for Beyond 5G Networks provides a comprehensive overview of the use of AI in wireless communication for the B5G networks. The authors draw on their expertise in the field to explore the latest developments in AI technologies and their application in B5G wireless communication systems. The book discusses a wide range of topics, from enabling AI technologies, architecture, and applications of AI from Smartphones, Radio Access Networks (RAN), core networks, and application service providers.

CRC Press
February 2024:240
Hb: 978-1-032-30121-1: £99.99

* For full contents and more information, visit: www.routledge.com/9781032301211

AI-Based Data Analytics

Applications for Business Management



Edited by **Kiran Chaudhary, Mansaf Alam**

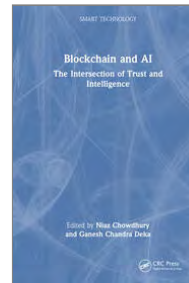
This book explores the concept and applications of AI-based analytics related to marketing and business. It also discusses future research directions in this domain. This book is meant for students, practitioners, industry professionals, researchers, and educators. It covers both aspects of artificial intelligence-based marketing and business that are helpful for business management to succeed in the marketplace by creating value.

Auerbach Publications
December 2023:260
Hb: 978-1-032-41176-7: £74.99

* For full contents and more information, visit: www.routledge.com/9781032411767

Blockchain and AI

The Intersection of Trust and Intelligence



Edited by **Niaz Chowdhury, Ganesh Chandra Deka**

Series: Smart Technology

In the rapidly evolving landscape of the digital age, two technologies stand out for their transformative potential: Artificial Intelligence (AI) and Blockchain. This book offers an incisive exploration of the confluence between these technological titans, shedding light on the synergies, challenges, and innovations that arise at this intersection. The chapters explore thought-provoking analyses, informed by cutting-edge research and expert perspectives, that navigate the nuanced interplay of decentralised ledger technology and intelligent systems.

CRC Press
April 2024:192
Hb: 978-0-367-75327-6: £110
Pb: 978-0-367-75331-3: £34.99

* For full contents and more information, visit: www.routledge.com/9780367753313

Communication Electronics: RF Design with Practical Applications using Pathwave/ADS Software



Stephen Long

Series: River Publishers Series in Electronic Materials, Circuits and Devices

This text/reference develops practical intuition into the art of RF circuit design and introduces users to the widely used simulation tool, Pathwave ADS, from Keysight Technologies. By using project-oriented assignments, it builds a strong foundation and focuses on practical applications illustrated by examples, simulation tutorials, and homework problems. Learning through doing has proven to be an effective preparatory tool for more advanced and complex applications, and this book is developed from the author's lecture notes for a senior/graduate class at University of California Santa Barbara.

River Publishers
January 2024:522
Hb: 978-8-770-22856-5: **£110**

* For full contents and more information, visit: www.routledge.com/9788770228565

Cyber Security for Next-Generation Computing Technologies



Edited by Inam Ullah Khan, Mariya Ouaisa, Mariyam Ouaisa, Zakaria Abou El Houda, Muhammad Fazal Ijaz

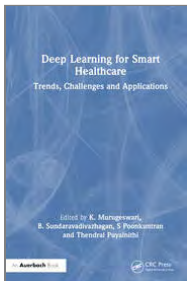
This book sheds light on the cybersecurity challenges associated with next generation computing technologies, emphasizing the serious threats posed to individuals, businesses, and nations. With everything becoming increasingly interconnected via the internet, data security becomes paramount. The book aims to cover key topics related to cybersecurity in next generation computing technologies, ultimately enhancing the quality of life for citizens, facilitating interaction with smart governments, and promoting secure communication processes.

CRC Press
January 2024:328
Hb: 978-1-032-51899-2: **£110**
eBook: 978-1-003-40436-1

* For full contents and more information, visit: www.routledge.com/9781032518992

Deep Learning for Smart Healthcare

Trends, Challenges and Applications



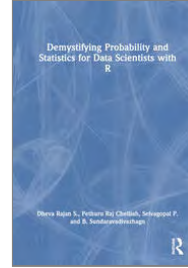
Edited by K. Murugeswari, B. Sundaravadivazhagan, S. Poonkuntran, Thendral Puyalnithi

Hospitals are currently not able to sufficiently meet the demand for quality patient outcomes due to increasing population and diversifying diseases. The shift from traditional healthcare approaches to ones assisted by machine learning hold promise. Managing patient data is critical and complex, and deep learning can provide solutions to manage such complexity. The book is a baseline reference for researchers and academicians who are investigating the application of deep learning algorithms in the healthcare sector. It focuses on medical imaging and healthcare data analytics.

Auerbach Publications
May 2024:224
Hb: 978-1-032-45581-5: **£160**

* For full contents and more information, visit: www.routledge.com/9781032455815

Demystifying Probability and Statistics for Data Scientists with R



Dheva Rajan S., Pethuru Raj Chelliah, Selvagopal P., B. Sundaravadivazhagan

This book illustrates statistics with the R programming language, an emerging tool in data science. Filled with techniques for data science and analytics programming, the book is written for students and professionals. It is focused on learning outcomes and problem solving. Beginning with basics of R programming, data science, and probability, the book progresses to methods, testing, and experiment design.

Auerbach Publications
April 2024:400
Hb: 978-1-032-72955-8: **£120**
Pb: 978-1-032-43621-0: **£44.99**

* For full contents and more information, visit: www.routledge.com/9781032436210

Digital Project Practice for Banking and FinTech



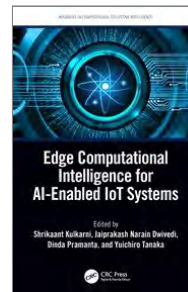
Edited by Tobias Endress

Technological trends in banking and fintech, particularly distributed ledger technology (DLT) and Open Banking, are often described as disruptive to the traditional finance industry. Emerging technologies like blockchain and API-based ecosystems fundamentally change the industry's structure and new business strategies are needed to capitalize on this change. This book explores practical aspects of digital transformation, but it also covers methods and critically analyzes existing approaches.

Auerbach Publications
March 2024:240
Hb: 978-1-032-49806-5: **£120**
Pb: 978-1-032-49365-7: **£44.99**

* For full contents and more information, visit: www.routledge.com/9781032493657

Edge Computational Intelligence for AI-Enabled IoT Systems



Edited by Shrikaant Kulkarni, Jaiprakash Dwivedi, Dinda Pramanta, Yuichiro Tanaka

Series: Advances in Computational Collective Intelligence

The book discusses the major contributions in the Edge AI domain of IoT systems: heterogeneous micro clusters employed for processing data and for exploiting adopted AI algorithms for the predictive analysis and or prescription. It covers experimental performances of various architectures for numerous applications in comparison with the similar kind of experimentation on the cloud and the outcomes derived with various artificial intelligence algorithms with conclusion and future prospects are discussed too.

CRC Press
February 2024:360
Hb: 978-1-032-20766-7: **£120**

* For full contents and more information, visit: www.routledge.com/9781032207667

Evolving from Digital Transformation to Digital Acceleration Using The Galapagos Framework

Cover Image
Not Available



Brian Harkin

More than 70% of digital transformations fail. This book challenges established thinking and offers The Galapagos Framework, a new way to drive digital change. This framework allows organisations to move from digital transformation to digital acceleration, resulting in exciting and innovative products and a positive impact on the motivation and well-being of their teams. Covering solutions to the common issues, expert case studies, the Galapagos Roadmap and a detailed guide to the Galapagos Framework itself, this book provides the key to increasing productivity, velocity, and performance whilst reducing cost and complexity leading to digital success.

Auerbach Publications

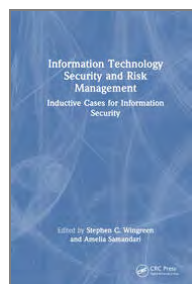
April 2024:304

Hb: 978-1-032-51111-5: **£38.99**

* For full contents and more information, visit: www.routledge.com/9781032511115

Information Technology Security and Risk Management

Inductive Cases for Information Security



Edited by **Stephen C. Wingreen, Amelia Samandari**

Information Technology Security and Risk Management: Inductive Cases for Information Security is a compilation of cases that examine recent developments and issues that are relevant to IT security managers, risk assessment and management, and the broader topic of IT security in the 21st century.

CRC Press

May 2024:336

Hb: 978-1-032-20614-1: **£110**

Pb: 978-1-032-20615-8: **£37.99**

* For full contents and more information, visit: www.routledge.com/9781032206158

Innovations and Applications of Technology in Language Education



Edited by **Hung Phu Bui, Raghvendra Kumar, Nilayam Kamila**

Series: Advances in Computational Collective Intelligence

The linguistics and language education world has recently experienced a rapidly proliferating interest in applying technology. This interdisciplinary area is bridging the gap between two previously separate fields. This book contextualizes language education technology and examines how it is currently applied, discusses how it should be applied, and indicates future development. It focuses on the use of technology to improve language teaching and learning, the potential and concerns regarding technology-assisted language testing and assessment, and on using technology in English language education.

Auerbach Publications

May 2024:240

Hb: 978-1-032-56073-1: **£160**

* For full contents and more information, visit: www.routledge.com/9781032560731

Internet of Things Vulnerabilities and Recovery Strategies



Edited by **Faheem Saeed Masoodi, Alwi Bamhdi, Majid Ahmad Charoo, Zubair Masoodi, Arif Lattoo, Gousiya Hussain**

The book covers the prime requirements for a secure Internet of Things (IoT) setup. The book discusses security concerns of an IoT setup by uncovering the present challenges in standardization of data routing, data integrity, device supervision, IoT integration, information storage, IoT performance, and security solutions. The book further demonstrates the modelling of varied possible attacks on an IoT setup and possible recovery strategies.

Auerbach Publications

May 2024:360

Hb: 978-1-032-47331-4: **£160**

* For full contents and more information, visit: www.routledge.com/9781032473314

Managing Customer Relationships Using Customer Care Techniques

Strategy Development of an International Enterprise



Anna Brzozowska, Stanisław Brzeziński, Arnold Pabian, Barbara Pabian

In today's global business environment, Customer Relationship Management (CRM) has become the key to the success of many international enterprises. "Managing Customer Relationships Using Customer Care Techniques: Strategy Development of an International Enterprise" offers a comprehensive analysis of this crucial business aspect, focusing on how companies can effectively manage their customer relationships in the context of global expansion. This book stands out with its unique approach to CRM, blending theory with practice, providing readers with a deep understanding of how CRM influences the strategies of international enterprises.

CRC Press

May 2024:248

Hb: 978-1-032-71388-5: **£110**

Pb: 978-1-032-71390-8: **£44.99**

* For full contents and more information, visit: www.routledge.com/9781032713908

Model-Driven Software Systems Development Using the Meta-Artifact Process



Wayne O'Brien

The book is concerned with software systems, specifically software code. It describes three major innovations for making software, which are combined with five widely used enabling technologies, to provide a complete, hypothesis-driven, software development process. Having complete requirements is essential for making good software and supports hypothesis-driven software development. The book explains ways to ensure that requirements are complete and correct and identifies likely points during development to form alternative hypotheses about them.

Auerbach Publications

April 2024:176

Hb: 978-1-032-58121-7: **£140**

Pb: 978-1-032-58176-7: **£44.99**

* For full contents and more information, visit: www.routledge.com/9781032581767

Optimum Spending on Cybersecurity Measures

DevOps



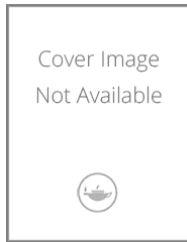
Sherita-Tara Kissoon

This book aims to discuss the integration of risk management methodologies within the DevOps process. It introduces the cyber risk investment model, and the cybersecurity risk management framework within the DevOps process. This can be used by various stakeholders who are involved in the implementation of cybersecurity measures to safeguard sensitive data. This framework facilitates an organization's risk management decision-making process to demonstrate the mechanisms in place to fund cybersecurity measures within DevOps practices and demonstrates the application of the process using a case study: Cascade.

CRC Press
March 2024:112
Hb: 978-1-032-51894-7: £110
Pb: 978-1-032-51897-8: £44.99

* For full contents and more information, visit: www.routledge.com/9781032518978

Providing Integrity, Awareness, and Consciousness in Distributed Dynamic Systems



Peter Simon Sapaty

The ideas of this book originate from the mobile WAVE approach which allowed us, more than half century ago, to implement citywide heterogeneous computer networks and solve distributed problems on them well before the internet. The invented paradigm evolved into Spatial Grasp Technology resulted in European Patent and eight books which were oriented on concrete applications in graph and network theory, defence and social systems, crises management, simulation of global viruses, gestalt theory, collective robotics, space research, and others. The obtained solutions often exhibited high system qualities like global integrity, distributed awareness, and even

consciousness.

CRC Press
April 2024:200
Hb: 978-1-032-54517-2: £110

* For full contents and more information, visit: www.routledge.com/9781032545172

Ransomware

Penetration Testing and Contingency Planning



Ravindra Das

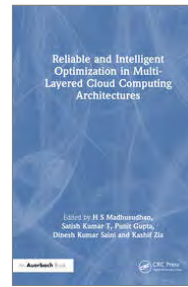
Series: Cyber Shorts

Ransomware attacks have become much more covert and stealthier, than when they first came out. In this book, the author provides an overview of what Ransomware is all about, and the timeline of its evolution. The author also discusses famous Ransomware attacks that have occurred, with a special focus on Solar Winds and Critical Infrastructure before taking a deep dive into Penetration Testing, and how it can be used to mitigate the risks of a Ransomware attack from happening. The author also covers Incident Response, Disaster Recovery, and Business Continuity Planning. We even look at an appropriate Data Backup Plan as well.

CRC Press
December 2023:132
Hb: 978-1-032-55667-3: £110
Pb: 978-1-032-55669-7: £29.99

* For full contents and more information, visit: www.routledge.com/9781032556697

Reliable and Intelligent Optimization in Multi-Layered Cloud Computing Architectures



Edited by **H S Madhusudhan, Satish Kumar T, Punit Gupta, Dinesh Kumar Saini, Kashif Zia**

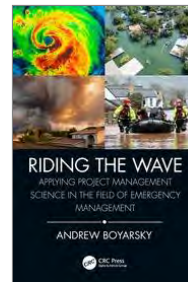
The book examines virtual machine placement techniques and task scheduling techniques that optimize resource utilization and minimize energy consumption of the cloud datacenter. Placement techniques provide an optimal solution to the optimization problem using multiple objectives. The book also focuses on basic design principles and analysis of virtual machine placement techniques and tasks allocation techniques. The virtual machine placement techniques are also used for quality-of-service (qoS) improvement of the service-oriented architecture-supported computing paradigm.

Auerbach Publications
April 2024:232
Hb: 978-1-032-55380-1: £150
Pb: 978-1-032-55996-4: £52.99

* For full contents and more information, visit: www.routledge.com/9781032559964

Riding the Wave

Applying Project Management Science in the Field of Emergency Management



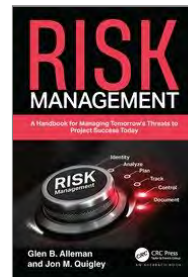
Andrew Boyarsky

Emergency managers and public safety professionals are more frequently being called on to address increasingly more challenging and complex critical incidents, with a wider variety and intensity of hazards and community vulnerabilities. Much of the work that falls into the scope of emergency managers- prevention, preparedness, mitigation- is "blue sky planning" and can be contained and effectively managed within projects. This book provides a foundational project management methodology relevant to the emergency management practice, and explains and demonstrates how project management can be applied in the context of emergency and public safety organizations.

CRC Press
April 2024:312
Hb: 978-1-032-06285-3: £110
Pb: 978-1-032-06286-0: £44.99

* For full contents and more information, visit: www.routledge.com/9781032062860

Risk Management



Glen B. Alleman, Jon M. Quigley

The book starts with the prerequisites to be able to uncover and understand risks. It then presents six immutable principles, with their process and data needed to put these principles and processes to work for managing risk needed to increase the probability of project success. The book also contains case studies of successful risk management and the attributes of those success, so the reader see how risk management worked in practice. As well there is a chapter on the anti-patterns of risk management, so the reader can recognize when the risk management principles and practices are being misapplied.

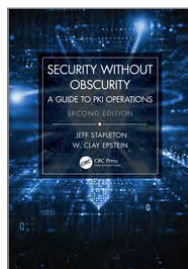
Auerbach Publications
March 2024:264
Hb: 978-1-032-54321-5: £130
Pb: 978-1-032-54564-6: £48.99

* For full contents and more information, visit: www.routledge.com/9781032545646

2ND EDITION

Security Without Obscurity

A Guide to PKI Operations



Jeff Stapleton, W. Clay Epstein

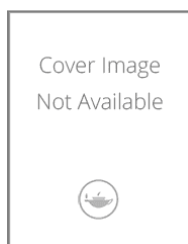
Public Key Infrastructure (PKI) is an operational ecosystem that employs key management, cryptography, information technology (IT), information security (cybersecurity) policy and practices, legal matters (law, regulatory, contractual, privacy), and business rules (processes and procedures). A properly managed PKI requires all of these disparate disciplines to function together; coherently, efficiently, effectually, and successfully. Clearly defined roles and responsibilities, separation of duties, documentation and communications are critical aspects for a successful operation.

CRC Press
February 2024:352
Hb: 978-1-032-54522-6: £110
Pb: 978-1-032-54525-7: £44.99

* For full contents and more information, visit: www.routledge.com/9781032545257

Seeing Invisible

Advanced Antenna Arrays



Pavlo A. Molchanov

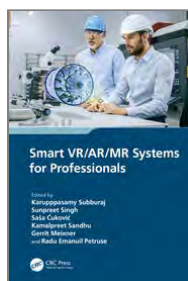
Series: River Publishers Series in Communications and Networking

This book provides a simple explanation of existing antenna arrays, their advances and limitations. It will lead you to nature-inspired next generation antenna array design and their advances. This book is intended for a wide area of readers and does not require special education, but it is a valuable resource for engineers and technicians who are involved in the design and development of all space communication and navigation systems, and drones, and hypersonic missiles detection systems, with special emphasis on interference immunity and protection.

River Publishers
April 2024:230
Hb: 978-8-770-04023-5: £94.99

* For full contents and more information, visit: www.routledge.com/9788770040235

Smart VR/AR/MR Systems for Professionals



Edited by Subburaj Karupppasamy, Sunpreet Singh, Saša Čuković, Kamalpreet Sandhu, Gerrit Meixner, Radu Emanuil Petrus

This book is a comprehensive guide that explores the ground-breaking applications of virtual reality (VR), augmented reality (AR), and mixed reality (MR) in various industries. This book aims to equip practicing professionals with the knowledge and insights they need to harness the full potential of these immersive technologies in their respective fields. In each chapter of this book, we will delve into specific topics, uncovering the principles, methodologies, and best practices that professionals can adopt.

CRC Press
February 2024:208
Hb: 978-1-032-30651-3: £99.99

* For full contents and more information, visit: www.routledge.com/9781032306513

Soft Computing Principles and Integration for Real-Time Service-Oriented Computing



Edited by Punit Gupta, Dinesh Kumar Saini, Kashif Zia

In recent years, soft computing techniques have emerged as a successful tool to understand and analyze the collective behavior of service-oriented computing software. Algorithms and mechanisms of self-organization of complex natural systems have been used to solve problems, particularly in complex systems which are adaptive, ever-evolving, and distributed in nature across the globe. What fits more perfectly into this scenario other than the rapidly developing era of fog, IoT, and edge computing environment? Service-oriented computing can be enhanced with soft computing techniques embedded inside the Cloud, Fog, and IoT systems.

Auerbach Publications
March 2024:272
Hb: 978-1-032-55188-3: £160

* For full contents and more information, visit: www.routledge.com/9781032551883

Technologies Enabling Future Mobile Connectivity & Sensing



Edited by Björn Debaillie, François Brunier, Dominique Morche, Erkan Nevzat Isa, Jan Craninx

Series: River Publishers Series in Communications and Networking

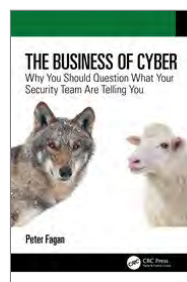
This book provides an overview of the latest research results in RF and digital SOI technology development for 5G and 6G, device and substrate characterization, packaging technology, and the realization of full systems including power amplifiers, linearization techniques, beamforming transceivers, access points, and radar detection. The book bundles the scientific content of the International Workshop on "Technologies enabling future mobile connectivity & sensing" in Lisbon, Portugal 10 September 2023, as part of the ESSCIRC/ESSDERC 2023 European Solid-state Circuits and Devices Conference.

River Publishers
January 2024:194
Hb: 978-8-770-04074-7: £130
eBook: 978-1-032-63303-9

* For full contents and more information, visit: www.routledge.com/9788770040747

The Business of Cyber

Why You Should Question What Your Security Team Are Telling You



Peter Fagan

The book examines the cybersecurity phenomenon, looking at the folklore, the hype, and the behaviour of its practitioners. A central theme is that the management of cybersecurity needs to be owned by the people running the organisation, rather than the security team. The content is strongly rooted in available research and case studies. Each chapter in the book takes a theme such as end-user behaviours, and compares the available evidence with what the industry would have its customers believe. The conclusion is that there is definitely a problem, and we certainly need cyber defences. Just not the ones the industry is currently selling.

CRC Press
February 2024:304
Hb: 978-1-032-46286-8: £110
Pb: 978-1-032-46290-5: £44.99

* For full contents and more information, visit: www.routledge.com/9781032462905

The Spirit of Recovery

IT Perspectives, Experiences, and Applications during the COVID-19 Pandemic



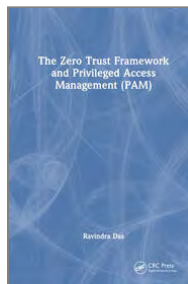
Edited by **Aji Prasetya Wibawa**

The scope of this book focuses on how information technology may assist in achieving goals and provide solutions to problems like the pandemic. This book explores and describes the current state-of-the-art research conducted during the pandemic. Topics covered include the IT Viewpoint and the rules governing digital transformation throughout the epidemic. The book includes five topics: Multidisciplinary Artificial Intelligence, Smart city and Internet of Things applications, Game Technology and Multimedia Processing, Data Science and Business Intelligence, IT Hospitality, and Information Systems.

CRC Press
January 2024:320
Hb: 978-1-032-36383-7: **£110**

* For **full contents** and more information, visit: www.routledge.com/9781032363837

The Zero Trust Framework and Privileged Access Management (PAM)



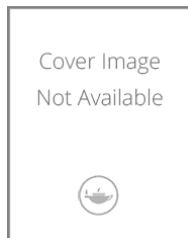
Ravindra Das

This book is about the Zero Trust Framework. Essentially, this is a methodology where an IT/Network Infrastructure of a business is segmented into smaller islands, each having their own lines of defenses. This is primarily achieved through the use of Multifactor Factor (MFA) authentication, where at least three more authentication layers are used, preferably being different from one another. It is hoped that by combining the Zero Trust Framework along with PAM, the use of passwords can be eradicated all together, thus giving rise to the "Passwordless Society".

CRC Press
May 2024:120
Hb: 978-1-032-74257-1: **£69.99**
Pb: 978-1-032-74600-5: **£29.99**

* For **full contents** and more information, visit: www.routledge.com/9781032746005

Towards Wireless Heterogeneity in 6G Networks



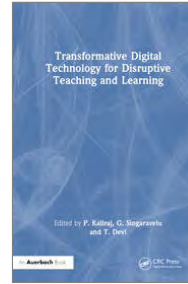
Edited by **Abraham George, G Ramana Murthy**

The connected world paradigm effectuated through proliferation of mobile devices, Internet of Things (IoT) and the metaverse will offer novel services in coming years that need anytime, anywhere, high speed access. The success will highly depend on the ability of the devices to always obtain the optimal network connectivity for an application and on the seamless mobility of the devices. The proposed book is on 6G concepts and architectures to support next generation applications such as IoT, multiband devices and high-speed mobile applications. The book will primarily focus on aspects of device characteristics, wireless heterogeneity, traffic engineering, etc.

CRC Press
April 2024:304
Hb: 978-1-032-43830-6: **£110**

* For **full contents** and more information, visit: www.routledge.com/9781032438306

Transformative Digital Technology for Disruptive Teaching and Learning



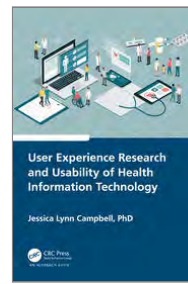
Edited by **P Kaliraj, G Singaravelu, T Devi**

This book looks at the ways in which the future learners of today can be educated. It covers digital learning strategies like blended learning, flipped learning, mobile learning, and gamification. It focuses on the creative teaching-learning strategies for modern learners. Providing knowledge on techno-pedagogy that encourages modern learners to learn more quickly, the book accelerates the capabilities of teaching and learning transactions. The book also anticipates innovative teaching-learning process in the classroom to meet the challenges of modern learners.

Auerbach Publications
February 2024:278
Hb: 978-1-032-46719-1: **£110**

* For **full contents** and more information, visit: www.routledge.com/9781032467191

User Experience Research and Usability of Health Information Technology



Jessica Campbell

This book is a comprehensive guide to designing and conducting studies that examine the usability of health information technology (HIT), including eHealth, mHealth, and other health information systems. Usability testing is a key method for evaluating and understanding the human factors that affect the usability of HIT in a specific context. The continuum of usability studies is presented ranging from formative testing (heuristic evaluations, think alouds) to summative testing (surveys, validation tests). This book provides practical knowledge on, frameworks for, and data collection and analysis techniques used in mixed-methods usability investigations of HIT.

Auerbach Publications
February 2024:234
Hb: 978-1-032-60878-5: **£130**
Pb: 978-1-032-16276-8: **£48.99**

* For **full contents** and more information, visit: www.routledge.com/9781032162768

2ND EDITION

Why CISOs Fail



Barak Engel

Series: Security, Audit and Leadership Series

Released in 2017, Why CISOs Fail reimagined the role of the Chief Information Security Officer in a new and powerful way. Written to be easily consumable by both security pros as well as everyone who must deal with them, the book explores the different realms in which security leaders fail to deliver meaningful impact to their organizations, and why this happens. Its central thesis - that security is primarily a human behavioral discipline rather than a technology one - has been gaining increased attention as a core tenet of the field, and the book was ultimately inducted into the cybersecurity canon as a leading book on security management.

CRC Press
March 2024:192
Hb: 978-1-032-29925-9: **£110**
Pb: 978-1-032-29927-3: **£24.99**

* For **full contents** and more information, visit: www.routledge.com/9781032299273

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A	Bioinformatics for Oral Cancer	26	Digital Project Practice for Banking and FinTech	42	Guide to Electricity and Magnetism	8
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