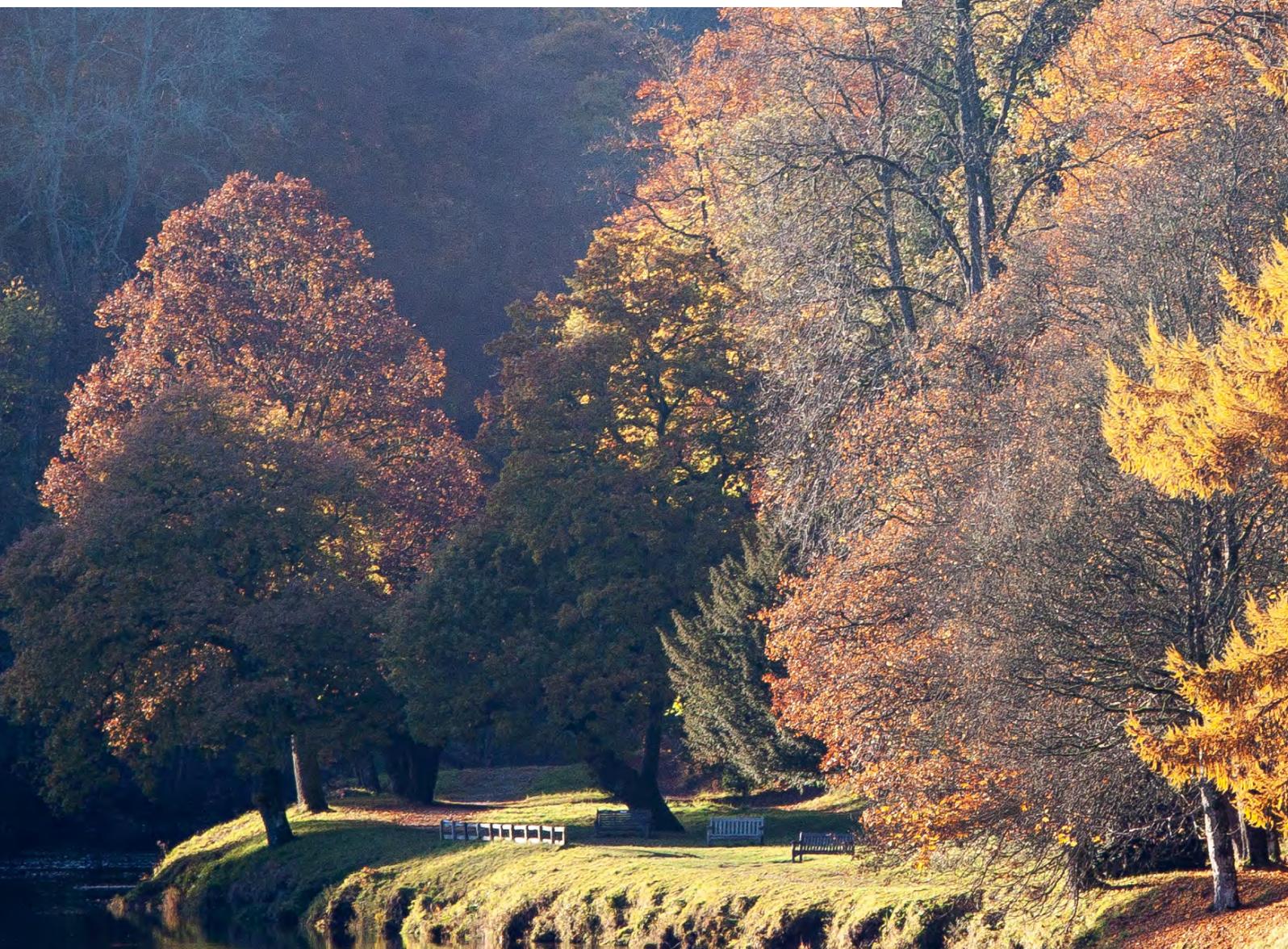


CRC PRESS

Rights Catalogue

Autumn - Winter 2022



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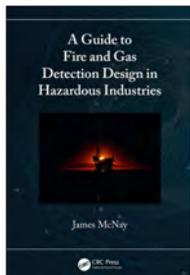
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A Guide to Fire and Gas Detection Design in Hazardous Industries



James McNay, Fire Training Centre, Aberdeen, UK

The text discusses fundamental aspects of fire and gas mapping, which has been applied with great success in many parts of the world and is commonly adopted by the major operators in the process industries. It is an ideal text for professionals and graduate students working in the fields of occupational health and safety, fire protection engineering, and environmental safety.

CRC Press

Market: Occupational Health and Safety

August 2022: 6.14 x 9.21: 152pp

Hb: 978-1-032-16012-2: **£150.00**

Pb: 978-1-032-16014-6: **£59.99**

eBook: 978-1-003-24672-5

* For full contents and more information, visit: www.routledge.com/9781032160146

The Health and Safety Trainer's Guidebook



Simon Watson Pain

This text comprehensively explains the effect of the brain on learning and then develops the training processes from training needs analysis all the way through effective training techniques and ending with competence assurance. The unique approach of the book is that part 2 provides a range of 30 tried and tested original resource ideas to make health and safety training effective and memorable. It will be a valuable text for professionals and graduate students in the fields of ergonomics, human factors, and occupation health and safety.

CRC Press

Market: Occupational Health and Safety

November 2022: 6.14 x 9.21: 324pp

Hb: 978-1-032-37958-6: **£180.00**

Pb: 978-1-032-31242-2: **£68.99**

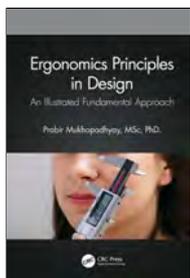
eBook: 978-1-003-34277-9

* For full contents and more information, visit: www.routledge.com/9781032312422



Ergonomics Principles in Design

An Illustrated Fundamental Approach



Prabir Mukhopadhyay, Indian Institute of Info Tech Design and Manufacturing, Jabalpur, India

The book touches upon different ergonomic principles in design and then showcases with examples where and how it has been applied. Each chapter of the book covers one aspect of design and emphasizes its application in the real world. It further highlights the ergonomic design of the interface of a blood pressure monitor and the ergonomic interface of a moving ticket vending machine. It will serve as an ideal reference text for graduate students and professionals in the fields of ergonomics, human factors, occupational health and safety, industrial engineering, and manufacturing engineering.

CRC Press

Market: Ergonomics and Human Factors

September 2022: 6.14 x 9.21: 162pp

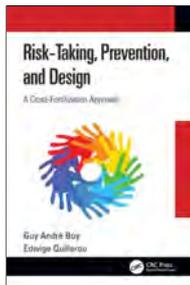
Hb: 978-1-032-29961-7: **£68.99**

eBook: 978-1-003-30293-3

* For full contents and more information, visit: www.routledge.com/9781032299617

Risk-Taking, Prevention and Design

A Cross-Fertilization Approach



Edited by Guy Andre Boy, CentraleSupélec & ESTIA and Edwige Quillerou

The text presents a new perspective that can be expanded in a large variety of domains of expertise where the role of people and organizations have crucial influence in the development of complex sociotechnical systems. It emphasizes on the combination of prevention and design for safety management. It will be an ideal reference text for graduate students and professionals working in the fields of occupational health and safety, ergonomics, and human factors, cognitive engineering, and human-system integration."

CRC Press

Market: Occupational Health and Safety

July 2022: 6.14 x 9.21: 267pp

Hb: 978-1-032-11800-0: **£180.00**

Pb: 978-1-032-11803-1: **£68.99**

eBook: 978-1-003-22160-9

* For full contents and more information, visit: www.routledge.com/9781032118031

Digital Transformation

Strategy, Execution and Technology



Siu Loon Hoe

This book provides insights on strategy, execution, and technology to enable transformation into a digital organization. It offers advice to organizations on how to become successful in this new digital age by explaining the importance and relevance of the different building blocks which form the foundation of a digital organization. It shows how to embrace these building blocks in the organization as part of the digital transformation journey from both a business and technical perspective. This practical guide is written for business professionals and digital transformation practitioners.

Auerbach Publications

Market: Information Technology Management

August 2022: 6.14 x 9.21: 156pp

Hb: 978-1-032-31795-3: **£120.00**

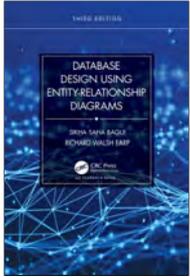
Pb: 978-1-032-11253-4: **£44.99**

eBook: 978-1-003-31139-3

* For full contents and more information, visit: www.routledge.com/9781032112534

3rd Edition

Database Design Using Entity-Relationship Diagrams



Sikha Saha Bagui, University of West Florida, Pensacola, Florida, USA and Richard Walsh Earp

Thoroughly revised and updated, this third edition covers, in an intuitive and informal way, the complete database design process, all the way from the inception of a database to effectively mapping the design to a relational model, that can then be implemented effectively in any relational software. Readers of this book will also understand how to reverse engineer a database back from relational mappings. Rules are presented for the forward and reverse mappings of the database to relational mappings and vice versa.

Auerbach Publications

Market: Database

September 2022: 6.14 x 9.21: 388pp

Hb: 978-1-032-01718-1: **£140.00**

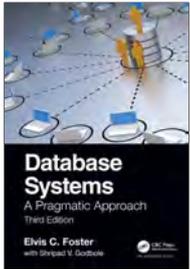
Pb: 978-1-032-32321-3: **£52.99**

eBook: 978-1-003-31445-5

* For full contents and more information, visit: www.routledge.com/9781032323213

Database Systems

A Pragmatic Approach



Elvis C. Foster and Shripad V. Godbole

This textbook is ideally suited for an undergraduate course in database systems. The discipline of database systems design and management is discussed within the context of a bigger picture — that of software engineering. The student is made to understand from the outset, that a database is a mission-critical component of a software system; that databases systems often form part of an organization's information infrastructure; and that proper database design and management is integral to the success of its related software engineering project and/or its related organizational information infrastructure.

Auerbach Publications

Market: Database

September 2022: 7 x 10: 622pp

Hb: 978-1-032-21732-1: **£140.00**

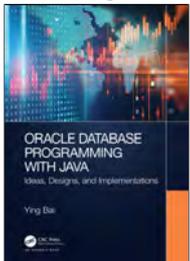
Pb: 978-1-032-20202-0: **£56.99**

eBook: 978-1-003-27572-5

* For full contents and more information, visit: www.routledge.com/9781032202020

Oracle Database Programming with Java

Ideas, Designs, and Implementations



Ying Bai, Johnson C. Smith University, Charlotte, North Carolina, USA

This textbook provides a detailed description about the practical considerations and applications in Oracle database programming using the most updated Apache NetBeans 12.4 as the IDE with authentic examples and detailed explanations. More important, quite a few of advanced Java programming techniques, such as Java Server Page (JSP), Java Web applications, Java Beans and Java Web Services, are developed and implemented in this book, combined with real examples, to provide readers with a clear picture as how to handle the Oracle database programming issues in Java NetBeans IDE environment.

Auerbach Publications

Market: Database

August 2022: 7 x 10: 604pp

Hb: 978-1-032-30229-4: **£74.95**

eBook: 978-1-003-30402-9

* For full contents and more information, visit: www.routledge.com/9781032302294

Software Design by Example

A Tool-Based Introduction with JavaScript



Greg Wilson

The best way to learn design in any field is to study examples, and some of the best examples of software design come from the tools programmers use in their own work. This book build small versions of the things programmers use in order to demystify them. This book can be used for self-paced study, in an undergraduate course on software design, or as the core of an intensive week-long workshop for working programmers. Each chapter has a set of exercises ranging in size and difficulty from half a dozen lines to a full day's work. Readers should be familiar with the basics of modern JavaScript, but the more advanced features are explained and illustrated as they are

introduced.

Chapman and Hall/CRC

Market: Computer Science

December 2022: 7 x 10: 344pp

Hb: 978-1-032-39967-6: **£110.00**

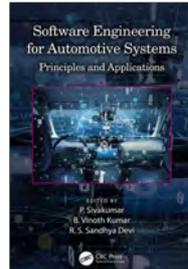
Pb: 978-1-032-33023-5: **£42.99**

eBook: 978-1-003-31780-7

* For full contents and more information, visit: www.routledge.com/9781032399676

Software Engineering for Automotive Systems

Principles and Applications



Edited by P. Sivakumar, PSG College of Technology, India, B. Vinoth Kumar, PSG College of Technology, India and R. S. Sandhya Devi, Kumaraguru College of Technology, India

Discussing state-of-art research and developments in software engineering for automotive systems in a single volume, this text will be useful as a reference text for senior undergraduate and graduate students in the field of electrical engineering, electronics and communications engineering, and automobile engineering. It comprehensively discusses important concepts such as automotive real-time operating systems, model-based testing of automotive software and software architecture for electric vehicle.

CRC Press

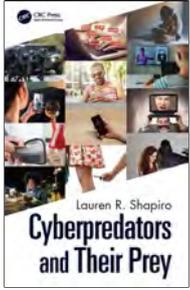
August 2022: 6.14 x 9.21: 176pp

Hb: 978-0-367-64785-8: **£74.99**

eBook: 978-1-003-26990-8

* For full contents and more information, visit: www.routledge.com/9780367647858

Cyberpredators and Their Prey



Lauren R. Shapiro, John Jay College, New York, USA

Cyberpredators and Their Prey examines cyberpredators from a multidisciplinary perspective utilizing psychology, criminal justice, law, and security principles to understand the criminal and the intended victim. It provides practical information on who typical cyberpredators are, their motives, methods, and targets.

It will prove essential reading to those who are studying to become, or are currently, security professionals; law enforcement personnel and investigators; intelligence agents; private investigators; lawyers; compliance officers; social service workers; and other professionals who deal with interpersonal cybercrime through the lens of social science.

CRC Press

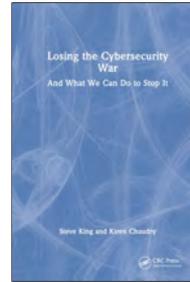
Market: Criminology/Cybercrime
September 2022: 6.14 x 9.21: 382pp
Hb: 978-0-367-55171-1: **£89.99**
Pb: 978-0-367-55169-8: **£42.99**
eBook: 978-1-003-09229-2

* For full contents and more information, visit: www.routledge.com/9780367551698



Losing the Cybersecurity War

And What We Can Do to Stop It



Steve King and Kiren Chaudry

A unique viewpoint that has never been explored – five battlefields include Economics, Technology, Information, Education and Leadership – and how each has contributed to our current disadvantage on the global stage – and how Zero Trust can change the game to an advantage for us going forward. The Zero Trust credibility is directly from the father of Zero Trust, John Kindervag who says "And now, Steve has written a new book on Zero Trust called : LOSING THE CYBERSECURITY WAR: Reversing the Attacker/Defender Dynamic on the Five Battlefields of Cybersecurity. It is undeniably the best Zero Trust book yet written..."

CRC Press

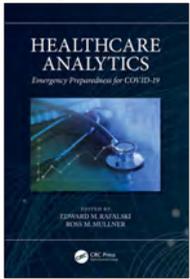
Market: Cybersecurity
December 2022: 6.14 x 9.21: 176pp
Hb: 978-1-032-36385-1: **£99.99**
Pb: 978-1-032-36408-7: **£29.99**
eBook: 978-1-003-33177-3

* For full contents and more information, visit: www.routledge.com/9781032364087



Healthcare Analytics

Emergency Preparedness for COVID-19



Edited by Edward M. Rafalski and Ross M. Mullner, University of Illinois, School of Public Health, Chicago, USA

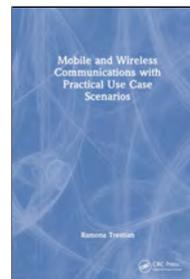
This book addresses a compelling need for documenting what has been learned by the academic and professional healthcare communities in healthcare analytics and disaster preparedness to this point in the COVID-19 pandemic. What is clear, at least from the US perspective, is that the healthcare system was unprepared and uncoordinated from an analytics perspective. Learning from this experience will only better prepare all healthcare systems and leaders for future crisis.

CRC Press

Market: Emergency Preparedness
August 2022: 6.14 x 9.21: 264pp
Hb: 978-1-032-06845-9: **£99.99**
eBook: 978-1-003-20413-8

* For full contents and more information, visit: www.routledge.com/9781032068459

Mobile and Wireless Communications with Practical Use Case Scenarios



Ramona Trestian

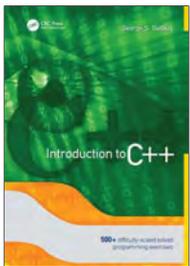
The aim of this textbook is to provide the readers with a comprehensive technical foundation of the mobile communication systems and wireless network design, operations and applications of various radio access technologies. Additionally, it also introduces the reader to the latest advancements in technologies in terms of Internet of Things ecosystem, Machine Learning and Digital Twins for IoT-enabled intelligent environments. Furthermore, this textbook also includes practical use-case scenarios using Altair WinProp Software as well as Python, TensorFlow and Jupiter as support for practice-based laboratory sessions.

CRC Press

Market: Mobile Communications
December 2022: 6.14 x 9.21: 344pp
Hb: 978-1-032-11901-4: **£120.00**
Pb: 978-1-032-11902-1: **£42.99**
eBook: 978-1-003-22209-5

* For full contents and more information, visit: www.routledge.com/9781032119021

Introduction to C++



George S. Tselikis, 4Plus company, Athens, Greece

This book is primarily addressed to students who are taking a course on the C++ language, to those who wish to self-study the C++ language, as well as programmers who have experience with C and want to move on to C++. It could also prove useful to instructors of the C++ course, who are looking for explanatory programming examples to add in their lectures. It has a focus on providing a solid introduction to the C++ language and programming knowledge through a large number of practical examples and meaningful advice. It includes more than 500 exercises and examples of progressive difficulty to aid the reader in understanding the C++ principles and concepts.

CRC Press

Market: Programming
August 2022: 7 x 10: 906pp
Hb: 978-1-032-13606-6: **£120.00**
Pb: 978-1-032-13608-0: **£38.99**
eBook: 978-1-003-23007-6

* For full contents and more information, visit: www.routledge.com/9781032136080

2nd Edition

Private Security

An Introduction to Principles and Practice



Charles P. Nemeth

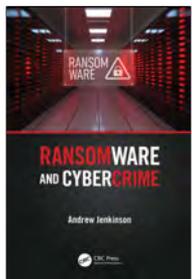
This book explains foundational security principles—defining terms and outlining the increasing scope of security in daily life—while reflecting current practices of private security as an industry and profession. Chapters focus on current practice, reflecting the technology-driven, fast-paced, global security environment including security law and legal issues, risk management, physical security, human resources and personnel considerations, investigations, institutional and industry-specific security, crisis and emergency planning, computer, and information security.

CRC Press

Market: Criminal Justice / Security
December 2022: 8 x 10: 944pp
Hb: 978-1-032-10833-9: **£120.00**
Pb: 978-1-032-10745-5: **£52.99**
eBook: 978-1-003-21729-9

* For full contents and more information, visit: www.routledge.com/9781032107455

Ransomware and Cybercrime



Andrew Jenkinson

This book covers many cyber and ransom attacks and events including how we have got to the point of massive digital utilisation and particularly, during the Global Lockdown and pandemic that is Covid-19 to online spending that will see twice the monetary amount lost to cybercrime, then to that which is spent online.

CRC Press

Market: Cybercrime

July 2022: 6.14 x 9.21: 198pp

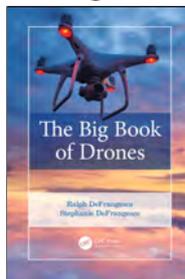
Hb: 978-1-032-23549-3: £99.99

Pb: 978-1-032-23550-9: £29.99

eBook: 978-1-003-27821-4

* For full contents and more information, visit: www.routledge.com/9781032235509

The Big Book of Drones



Ralph DeFrancesco and Stephanie DeFrancesco

The Big Book of Drones covers everything from drone law to laws on privacy. The book discusses the history and evolution of drones to where we are today. If you are new to piloting, it covers how to fly a drone including a pre-flight check list.

For those who are interested in taking drones to the next level, we discuss how to build your own using a 3D printer and many challenging projects for your drone. For the truly advanced, the Big Book of Drones discusses how to hack a drone. This includes how to perform a replay attack, denial of service, how to detect a drone and take it down.

CRC Press

Market: Drones

July 2022: 6.14 x 9.21: 182pp

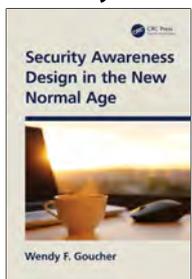
Hb: 978-1-032-06281-5: £55.99

Pb: 978-1-032-06282-2: £24.99

eBook: 978-1-003-20153-3

* For full contents and more information, visit: www.routledge.com/9781032062822

Security Awareness Design in the New Normal Age



Wendy F. Goucher

In these post-COVID days of 'New Normal' working, in which staff spend more of their time working at home, organisations are still responsible for the protection of sensitive personal and corporate data. This means that it is more important than ever to create an effective security awareness communication process. This book will primarily consider the problem of hitting that 'Sweet Spot' in the age of 'New Normal working', where knowledge about secure practice is not only understood and remembered, but also reliably put into practice – even when working alone. This will be informed by academic research as well as professional experience.

CRC Press

Market: IT Security

July 2022: 6.14 x 9.21: 136pp

Hb: 978-1-032-04764-5: £54.99

eBook: 978-1-003-19458-3

* For full contents and more information, visit: www.routledge.com/9781032047645

What To Do When You Get Hacked

A Practitioner's Guide to Incident Response in the 21st Century



Simon Brathwaite

This book teaches you everything that you need to know about preparing your company for a potential data breach. We begin by talking about what the latest cybersecurity threats and attacks are that your company needs to be prepared for. Once we establish that we go into the different phases of the incident response lifecycle based on the NIST framework. This will teach you how to properly prepare and respond to cybersecurity incidents so that you can be sure to minimize the damage and fulfill all of your legal requirements during a cyberattack. This book is meant for the everyday business owner and makes these concepts simple to understand and apply.

CRC Press

Market: Incident Response

November 2022: 6.14 x 9.21: 176pp

Hb: 978-1-032-20607-3: £68.99

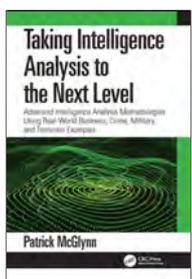
Pb: 978-1-032-20608-0: £37.99

eBook: 978-1-003-26429-3

* For full contents and more information, visit: www.routledge.com/9781032206080

Taking Intelligence Analysis to the Next Level

Advanced Intelligence Analysis Methodologies Using Real-World Business, Crime, Military, and Terrorism Examples



Patrick McGlynn

The book examines intelligence gathering and analysis and the significance of these programs. Coverage assumes a basic understanding of the intelligence cycle and processes, and the book builds upon the author's previous text, *Intelligence Analysis Fundamentals* —also published by CRC Press—to further address various types of intelligence, the function and increasing usage of intelligence in both the private and public sectors, and the consumption of intelligence products to inform strategic decision-making.

CRC Press

Market: Homeland Security/Intelligence

September 2022: 7 x 10: 350pp

Hb: 978-1-032-13676-9: £120.00

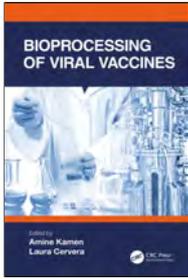
Pb: 978-1-032-13673-8: £58.99

eBook: 978-1-003-24119-5

* For full contents and more information, visit: www.routledge.com/9781032136738



Bioprocessing of Viral Vaccines



Edited by **Amine Kamen** and **Laura Cervera**

This book focuses on cell culture-produced viral vaccines to meet the needs of the rapidly expanding research and development in academia and industry in the field. This book introduces the basic principles of vaccination and the manufacturing of viral vaccines. This book is aimed at graduate engineers and professionals in the fields of virology, immunology, bioprocessing, and biomanufacturing of viral vaccines.

CRC Press

Market: Biomedical Engineering

September 2022: 6.14 x 9.21: 328pp

Hb: 978-1-032-13211-2: **£120.00**

eBook: 978-1-003-22979-7

* For full contents and more information, visit: www.routledge.com/9781032132112

Biosensors

Fundamentals, Emerging Technologies, and Applications



Edited by **Sibel A. Ozkan**, **Bengi Uslu** and **Mustafa Kemal Sezgin**

Series: Emerging Materials and Technologies

This book provides insight into the sensing applications of different types of biosensors for environmental pollutants, microbiological analysis, and healthcare. It describes the state-of-the-art in biosensors, point of care testing, potential applications, and future prospects of biosensors. This book is aimed at advanced students, researchers, and academics across a broad interdisciplinary field including biochemical, pharmaceutical, and environmental engineering as well as materials science, analytical chemistry, and biosciences.

CRC Press

Market: Biotechnology/Chemical Engineering

July 2022: 6.14 x 9.21: 394pp

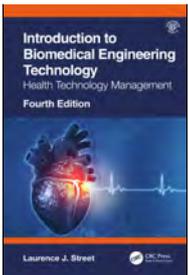
Hb: 978-1-032-03865-0: **£140.00**

eBook: 978-1-003-18943-5

* For full contents and more information, visit: www.routledge.com/9781032038650

4th Edition

Introduction to Biomedical Engineering Technology



Laurence J. Street, Independent Consultant, Rosedale, Canada

This updated fourth edition provides current information on devices and is divided into diagnostic and treatment sections. Devices are described with the theory of operation, relevant anatomical and physiological considerations. Aspects of BMET work including test equipment, standards and information technology are also discussed. This new edition also includes two new chapters on computers, Information Technology and networking as well as health technology management. This book is intended for students in BMET/HTM programs as well as biomedical engineering students. Field service representatives, medical device designers, and medical device sales

representatives would also find it useful.

CRC Press

Market: Biomedical Science

August 2022: 6.14 x 9.21: 441pp

Hb: 978-0-367-68700-7: **£110.00**

eBook: 978-1-003-14060-3

Prev. Ed Hb: 978-1-498-72275-9

* For full contents and more information, visit: www.routledge.com/9780367687007

Rehabilitation Engineering

Principles and Practice



Edited by **Alex Mihailidis** and **Roger Smith**

Series: Rehabilitation Science in Practice Series

This book will provide an overview of the rehabilitation engineering field, including key concepts that are required to provide a solid foundation about the discipline. It will present these concepts through a mix of basic and applied knowledge from rehabilitation engineering research and practice. It's written as an introductory text in order to provide access to the field by those without previous experience or background in the field. These concepts will include those related to engineering and health that are necessary to understand the application of rehabilitation engineering to support human function.

CRC Press

Market: Biomedical Science

November 2022: 6.14 x 9.21: 696pp

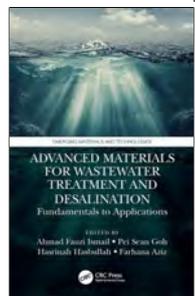
Hb: 978-1-138-19826-5: **£99.99**

eBook: 978-1-315-27048-7

* For full contents and more information, visit: www.routledge.com/9781138198265

Advanced Materials for Wastewater Treatment and Desalination

Fundamentals to Applications



Edited by **Ahmad Fauzi Ismail, Pei Sean Goh, Hasrinah Hasbullah and Farhana Aziz**

Series: *Emerging Materials and Technologies*

Advanced Materials for Wastewater Treatment and Desalination: Fundamentals to Applications offers a comprehensive overview of current progress in the development of advanced materials used in wastewater treatment and desalination. The book is divided into 2 major sections, covering with both fundamentals and applications. With chapters written by leading researchers from around the world, this book will be of interest to chemical, materials, and environmental engineers working on progressing materials applications to improve water treatment technologies.

CRC Press

Market: Chemical/Environmental Engineering

August 2022: 6.14 x 9.21: 378pp

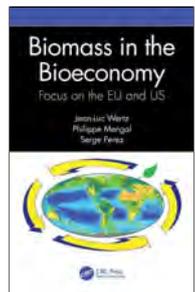
Hb: 978-0-367-76516-3: **£120.00**

eBook: 978-1-003-16732-7

* For full contents and more information, visit: www.routledge.com/9780367765163

Biomass in the Bioeconomy

Focus on the EU and US



Edited by **Jean-Luc Wertz, l'USINE, Belgium, Philippe Mengal and Serge Perez, Claix, France**

Demand for biomass is increasing worldwide, and the challenge is to reconcile this increased demand with the sustainable management of ecosystems, including forests and crops. This reference discusses the role of biomass in the bioeconomy and focuses on the European Union and the United States, the first two regions to develop a bioeconomy strategy with an obvious effect on the bioeconomy developments in the rest of the world. When significant, developments in other areas of the world are addressed. This reference will appeal to an interdisciplinary audience of readers working in the fields of chemical and environmental engineering.

CRC Press

Market: Chemical Engineering

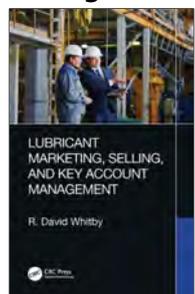
October 2022: 6.14 x 9.21: 178pp

Hb: 978-1-032-31173-9: **£99.99**

eBook: 978-1-003-30845-4

* For full contents and more information, visit: www.routledge.com/9781032311739

Lubricant Marketing, Selling, and Key Account Management



Edited by **R. David Whitby, Pathmaster Marketing Ltd., England**

This book fills a need for a comprehensive guide on the important commercial aspects of the lubricants business, offering unique and valuable insights from a veteran of the industry. It answers questions and offers insights on how to effectively market and sell all types of lubricants, including automotive, industrial, mining, marine, agricultural, and aerospace, among others. This practical book is written for technical and non-technical readers involved in the sale and management of lubricant products and offers hands-on guidance for how to successfully navigate and grow your profitability in this vitally important product sector.

CRC Press

Market: Chemical Engineering/Business

September 2022: 6.14 x 9.21: 394pp

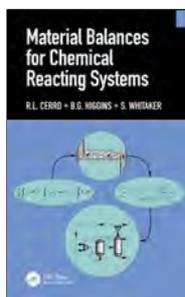
Hb: 978-1-032-33146-1: **£130.00**

eBook: 978-1-003-31839-2

* For full contents and more information, visit: www.routledge.com/9781032331461

Material Balances for Chemical Reacting Systems

Edited by **R.L. Cerro, B.G. Higgins and S. Whitaker**



Written for a first course in chemical engineering, this book offers students a rigorous approach to solving the types of macroscopic balance problems they will encounter as chemical engineers. This course is generally taken after students have completed calculus and vector analysis, and these subjects are employed throughout. This textbook is aimed at undergraduate chemical engineering students but can be used as a reference for graduate students and professional chemical engineers as well as readers from environmental engineering and bioengineering. It features a solutions manual and lecture slides available to adopting professors.

CRC Press

Market: Chemical Engineering

November 2022: 6.14 x 9.21: 456pp

Hb: 978-1-032-25529-3: **£74.99**

eBook: 978-1-003-28375-1

* For full contents and more information, visit: www.routledge.com/9781032255293

Microalgae for Environmental Biotechnology

Smart Manufacturing and Industry 4.0 Applications



Edited by **Pau Loke Show, The University of Nottingham, Malaysia, Wai Siong Chai and Tau Chuan Ling**

This is the first book to present the idea of using Industry 4.0 and smart manufacturing in the microalgae industry for environmental biotechnology. It provides the latest developments on microalgae for use in environmental biotechnology, explains process analysis from an engineering point of view, and discusses the transition to smart manufacturing and how state of the art technologies can be incorporated. It covers applications, technologies, challenges, and future perspectives. Aimed at chemical engineers, bioengineers, and environmental engineers, this is an essential resource for researchers, academics, and industry professionals

in the microalgae biotechnology field.

CRC Press

Market: Chemical Engineering/Biotechnology

July 2022: 6 x 9: 466pp

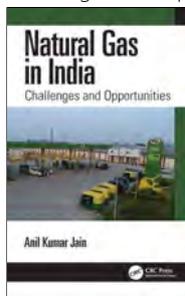
Hb: 978-1-032-06411-6: **£130.00**

eBook: 978-1-003-20219-6

* For full contents and more information, visit: www.routledge.com/9781032064116

Natural Gas in India

Challenges and Opportunities



Edited by **Anil Kumar Jain, Secretary, Ministry of Coal, ND, India**

This book provides a detailed discussion on India's energy mix including descriptive use of Diversity and Shannon Weiner Diversity indexes for numerically comparing India's diversity in energy supply with other leading energy consuming countries. The likely supply scenarios of both domestic and imported gas, and price competitiveness with competing fuels in differing consuming sectors, has also been presented. Overall, it covers energy systems, comparison of Indian natural gas economy with other countries, and a scenario-based analysis of gas demand in India in 2030. This book aims at Gas Industry professionals, techno-managerial personnel including students in chemical engineering.

CRC Press

Market: Energy, Fuels, and Petrochemicals

September 2022: 6 x 9: 230pp

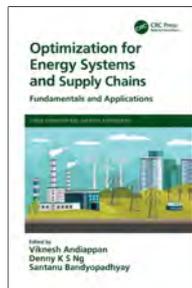
Hb: 978-1-032-30985-9: **£64.99**

eBook: 978-1-003-30769-3

* For full contents and more information, visit: www.routledge.com/9781032309859

Optimization for Energy Systems and Supply Chains

Fundamentals and Applications



Edited by **Viknesh Andiappan**, **Denny K S Ng** and **Santanu Bandyopadhyay**

Series: Green Chemistry and Chemical Engineering

Mathematical models can provide decision-makers with the tools required to make well-informed decisions relating to development of energy systems and supply chains to curb the impacts of rising CO₂ emissions. This book provides an understanding of the various available energy systems, the basics behind mathematical models, the steps required to develop mathematical models, and examples/case studies where such models are applied. This book is divided into two parts, one covering basics for beginners and the other featuring contributed chapters offering illustrative examples. It is aimed

at chemical, process, mechanical, and energy engineers.

CRC Press

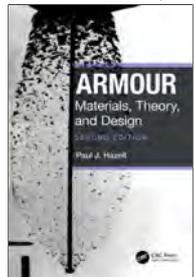
Market: Chemical Engineering
 December 2022: 6.14 x 9.21: 328pp
 Hb: 978-1-032-14621-8: **£180.00**
 Pb: 978-1-032-14622-5: **£89.99**
 eBook: 978-1-003-24022-8

* For full contents and more information, visit: www.routledge.com/9781032146225

2nd Edition

Armour

Materials, Theory, and Design



Paul J. Hazell, The University of New South Wales, Australia

Introducing a wide range of armour technologies, the book is a key guide to the technology used to protect against both blasts and ballistic attacks. Chapters cover bullets, blast, jets and fragments, as well as penetration mechanics. The new edition builds on the previous one, discussing ceramics, metallic materials as well as woven fabrics and composite laminates. Detailing modern technology advancements, the second edition has also been expanded to include improved explanations on shock mechanisms and includes significantly more figures and diagrams

CRC Press

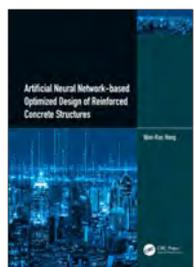
Market: Mechanical Engineering

September 2022: 6.14 x 9.21: 498pp

Hb: 978-0-367-41971-4: £120.00

eBook: 978-1-003-32271-9

Prev. Ed Hb: 978-1-482-23829-7

* For full contents and more information, visit: www.routledge.com/9780367419714**Artificial Neural Network-based Optimized Design of Reinforced Concrete Structures**

Won-Keel Hong, Kyung Hee University, Republic of Korea

This book introduces AI-based Lagrange optimization techniques that can enable more rational engineering decisions for concrete structures, while conforming to codes of practice. These help formulate not only objective functions but also constraining functions in terms of weights and biases for both forward and reverse formulation in a way that is not possible using analytically mathematical expressions. The principles are outlined and then applied to the design of RC columns and beams, offering insight for both advanced practitioners and graduate students.

CRC Press

Market: Structural and Civil Engineering

December 2022: 7 x 10: 600pp

Hb: 978-1-032-32368-8: £150.00

eBook: 978-1-003-31468-4

* For full contents and more information, visit: www.routledge.com/9781032323688**Coastal Disaster Surveys and Assessment for Risk Mitigation**

Edited by Tomoya Shibayama, Waseda University, Japan and Miguel Esteban, Waseda University, Japan

This covers the essential concepts in the management of coastal disasters, for students and engineers who manage tsunamis, storm surges, high wave attacks and coastal erosion. It outlines several field surveys of coastal disasters in the 21st century, including the Indian Ocean and Tohoku Tsunamis, and the storm surges of Hurricane Katrina, Cyclone Nargis, and Typhoon Haiyan, with measurements of flood heights, distributions of structural destruction and residents' testimonies. It develops numerical simulations alongside current understanding of disaster mechanisms and the most advanced tools for future simulation to propose future procedures for effective mitigation.

CRC Press

Market: Coastal Engineering and Hazards

October 2022: 6.14 x 9.21: 392pp

Hb: 978-0-367-74128-0: £79.99

eBook: 978-1-003-15616-1

* For full contents and more information, visit: www.routledge.com/9780367741280**Collision Actions on Structures**

Arnold C.Y. Yong, Research Fellow, Malaysia, Nelson T.K.

Lam, University of Melbourne, Australia and Scott J.

Menegon, Swinburne University of Technology, Australia

This book is concerned with collision of a moving, fallen or flying object on a rigid barrier or a structural element, and the transmission of the transient action to the rest of a structural system. Engineers typically have little to draw on for analysis and design. Modelling software, such as FEM, is challenging to use effectively, physical experimentation is costly, and there is little or no regulatory documentation. This textbook for graduate students and guide for practitioners sets out solid principles and much of the methodology conveyed in the book has been validated experimentally.

CRC Press

Market: Structural and Mechanical Engineering

September 2022: 6.14 x 9.21: 378pp

Hb: 978-0-367-67817-3: £84.99

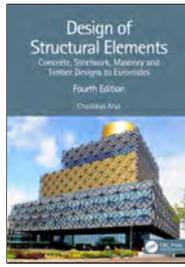
eBook: 978-1-003-13303-2

* For full contents and more information, visit: www.routledge.com/9780367678173

4th Edition

Design of Structural Elements

Concrete, Steelwork, Masonry and Timber Designs to Eurocodes



Chanakya Arya, University College, London

This is a concise introduction to the design of structural elements in concrete, steel, timber, masonry and composites. It provides design principles and guidance in line with Eurocodes, current as of 2021. Topics include the philosophy of design, sustainable development, basic structural concepts, and material properties. The chapters encompass numerous diagrams and worked examples on design in reinforced concrete, structural steelwork and steel/concrete composites, masonry and timber based on EN 1990-1997. Elements considered cover reinforced concrete and composite floors, isolated foundation, cantilever retaining wall, load-bearing and panel walls, stud wall and connections.

CRC Press

Market: Structural Engineering

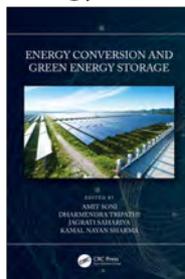
May 2022: 6.85 x 9.69: 520pp

Hb: 978-1-032-07632-4: £110.00

Pb: 978-1-032-07631-7: £42.99

eBook: 978-1-003-20803-7

Prev. Ed Pb: 978-0-415-46720-9

* For full contents and more information, visit: www.routledge.com/9781032076317**Energy Conversion and Green Energy Storage**

Edited by Amit Soni, Manjiv Tripathi, Jagrati Sahariya, and Kamal Nayan Sharma

Manjiv Tripathi, National Institute of Technology Uttarakhand,

Jagrati Sahariya, National Institute of Technology Uttarakhand and

Kamal Nayan Sharma, Amity University Haryana, Gurugram

Energy Conversion and Green Energy Storage presents recent developments in renewable energy conversion and green energy storage. Covering technical expansions in renewable energy and applications, energy storage, and solar photovoltaics, the book features chapters written by global experts in the field. The book serves as a useful reference for researchers, graduate students, and engineers in the field of energy. Providing insights related to various forms of renewable energy, the book discusses

developments in solar photovoltaic applications. The book also includes simulation codes and programs, such as Wien2k code, VASP code, and MATLAB®.

CRC Press

Market: Engineering - Energy

September 2022: 6.14 x 9.21: 230pp

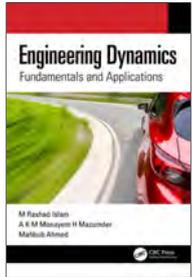
Hb: 978-1-032-19206-2: £89.99

eBook: 978-1-003-25820-9

* For full contents and more information, visit: www.routledge.com/9781032192062

Engineering Dynamics

Fundamentals and Applications



M Rashad Islam, A K M Monayem H Mazumder and Mahbub Ahmed

This textbook is intended for the first course of engineering dynamics for undergraduate students. Engineering dynamics is a rigorous topic that typically involves the intensive use of vector mathematics and calculus. This book, however, uses plain language with less vector mathematics and calculus to introduce these topics of mathematics to students with a high school physics background. Numerous practical examples are provided with their step-by-step worked out solutions, as well as case studies to reflect the interests of new engineering and applied engineering students.

CRC Press

Market: Civil Engineering
August 2022: 6 x 9: 276pp
Hb: 978-1-032-25557-6: **£89.99**
eBook: 978-1-003-28395-9

* For full contents and more information, visit: www.routledge.com/9781032255576

2nd Edition

Fundamentals of Open Channel Flow



Glenn E. Moglen, US Department of Agriculture, USA

This new edition focuses on theory with clear, fully-solved examples, and practical tools such as spreadsheets and software. Now with more on design applications, including culvert design, a wider range of channel shapes, and an update of the US Corps of Engineers' HEC-RAS program. It suits a senior undergraduate or graduate student course, covering energy, momentum, friction, and gradually varied flow, both qualitative and quantitative, with the few simple equations needed. Energy-depth and momentum-depth relationships are looked at graphically and the book's website gives a wealth of interactive tools and animations showing actual flow dynamics of some transient flow problems.

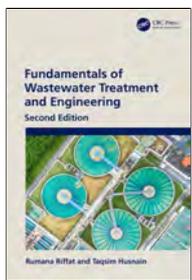
CRC Press

Market: Hydraulic Engineering
December 2022: 6.14 x 9.21: 328pp
Hb: 978-1-032-20456-7: **£130.00**
Pb: 978-1-032-20455-0: **£59.99**

* For full contents and more information, visit: www.routledge.com/9781032204550

2nd Edition

Fundamentals of Wastewater Treatment and Engineering



Rumana Riffat, George Washington University, USA and Taqsim Husnain, William Jewell College, USA

This new edition introduces readers to the fundamental concepts of wastewater treatment, followed by engineering design of unit processes for sustainable treatment of municipal wastewater and resource recovery. New chapters reflect advances in design, resource recovery practices and research. It covers history, current practices, emerging concerns, future directions and pertinent regulations that have shaped the objectives of this important area of engineering. Ideally suited for undergraduate and graduate students who have some knowledge of environmental chemistry and fluid mechanics, as well as professionals in the wastewater industry.

CRC Press

Market: Water and Hydraulics Engineering
April 2022: 6.14 x 9.21: 430pp
Hb: 978-0-367-68130-2: **£74.99**
eBook: 978-1-003-13437-4
Prev. Ed Hb: 978-0-415-66958-0

* For full contents and more information, visit: www.routledge.com/9780367681302

Geopolymers as Sustainable Surface Concrete Repair Materials



Ghasan Fahim Huseien, Abdul Rahman Mohd Sam and Mahmood Md. Tahir

Series: Emerging Materials and Technologies

The deterioration of concrete surface structures is a major concern in construction engineering that requires precise repairing. Geopolymer mortars have been identified as potentially superior and environmentally friendly high-performance construction materials, as they are synthesized by selectively combining waste materials containing alumina and silica compounds which are further activated via strong alkaline solution. This book offers readers insight into the synthesis, properties, benefits, and applications of geopolymer-based materials for concrete repair. It is written for researchers and professionals working with concrete materials,

including civil and materials engineers.

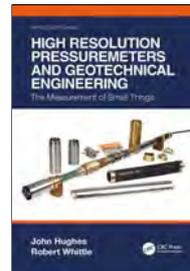
CRC Press

Market: Materials Science/Civil Engineering
August 2022: 6.14 x 9.21: 220pp
Hb: 978-1-032-00299-6: **£99.99**
eBook: 978-1-003-17361-8

* For full contents and more information, visit: www.routledge.com/9781032002996

High Resolution Pressuremeters and Geotechnical Engineering

The Measurement of Small Things



John Hughes, Cambridge Insitu Ltd, UK and Robert Whittle, Cambridge Insitu Ltd, UK

Series: Applied Geotechnics

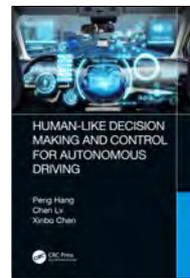
Pressuremeters are in situ soil testing devices that expand a cavity in ground and provide a loading curve of the measured response. This book focuses on pressuremeters with internal transducers that allow measurement of strength, stiffness and in-situ reference stress. It outlines the principles and the basics of the technology, gives guidance on good practice and making reliable analysis, provides case studies, and compares the pressuremeter test with similar ones from other devices to enable engineers to make informed choices.

CRC Press

Market: Civil Engineering
October 2022: 6.14 x 9.21: 325pp
Hb: 978-1-032-06094-1: **£69.99**
eBook: 978-1-003-20068-0

* For full contents and more information, visit: www.routledge.com/9781032060941

Human-Like Decision Making and Control for Autonomous Driving



Peng Hang, Nanyang Technological University, Singapore, Chen Lv, Nanyang Technological University, Singapore and Xinbo Chen, Tongji University, China

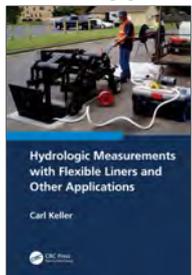
Beginning with a review of current research in the field, the book uses this as a springboard from which to present a new theory of human-like driving framework for autonomous vehicles. Throughout the book, game theory is applied to human-like decision making, enabling the autonomous vehicle and the human driver interaction to be modelled using noncooperative game theory approach. It also uses game theory to model collaborative decision making between connected autonomous vehicles. This framework enables human-like decision making and control of autonomous vehicles, which leads to safer and more efficient driving in complicated traffic scenarios.

CRC Press

Market: Mechanical Engineering
July 2022: 6.14 x 9.21: 200pp
Hb: 978-1-032-26208-6: **£74.99**
eBook: 978-1-003-28708-7

* For full contents and more information, visit: www.routledge.com/9781032262086

Hydrologic Measurements with Flexible Liners and Other Applications



Carl Keller

The book will be of interest to Environmental professionals; Mine operators; Petroleum engineers; Geophysicists who use these methods or are considering using these methods for remediation of groundwater contamination; Academics, students, and Regulators.

CRC Press

Market: Civil & Environmental Engineering

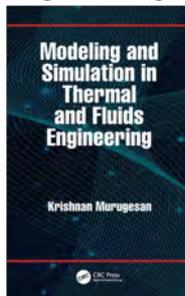
July 2022: 6.14 x 9.21: 336pp

Hb: 978-1-032-21262-3: £120.00

eBook: 978-1-003-26837-6

* For full contents and more information, visit: www.routledge.com/9781032212623

Modeling and Simulation in Thermal and Fluids Engineering



Krishnan Murugesan, IIT Roorkee, India

The book will guide the readers on fundamentals of mathematical modelling and simulation of thermal engineering related problems. It begins by discussing conservation equations, numerical methods including finite volume methods and finite element methods, followed by modelling of heat transfer problems and modelling of flow problems. It will be a valuable resource for senior undergraduate and graduate students in the field of mechanical chemical engineering.

CRC Press

Market: Engineering - Medical

July 2022: 6.14 x 9.21: 370pp

Hb: 978-0-367-56046-1: £140.00

eBook: 978-1-003-24807-1

* For full contents and more information, visit: www.routledge.com/9780367560461

Introduction to Computational Engineering with MATLAB®



Timothy Bower, Kansas State University, USA

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

This book aims to teach readers how to use MATLAB programming to solve numerical engineering problems. The book focuses on computational engineering with the objective of helping engineering students improve their numerical problem-solving skills. Although this book covers some advanced topics, readers do not need prior computer programming experience or an advanced mathematical background. Instead, the focus is on learning how to leverage the computer and software environment to do the hard work. The problem areas discussed are related to data-driven engineering, statistics, linear

algebra, and numerical methods.

Chapman and Hall/CRC

Market: Mathematics

September 2022: 6.14 x 9.21: 438pp

Hb: 978-1-032-22178-6: £130.00

Pb: 978-1-032-22141-0: £52.99

eBook: 978-1-003-27143-7

* For full contents and more information, visit: www.routledge.com/9781032221410

4th Edition

Pavement Engineering

Principles and Practice

Edited by **Rajib B. Mallick**, CEE Department, WPI, Worcester, MA, USA and **Tahar El-Korchi**, Worcester Polytechnic Institute, Massachusetts, USA

Pavement Engineering: Principles and Practice examines a wide range of topics in asphalt and concrete pavements, from soil preparation and structural design to life cycle costing and economic analysis. This updated Fourth Edition covers all concepts and practices of pavement engineering in terms of materials, design, and construction methods for both flexible and rigid pavements, and includes the latest developments in recycling, sustainable pavement materials, and resilient infrastructure.

CRC Press

Market: Engineering - Civil

December 2022: 7 x 10: 688pp

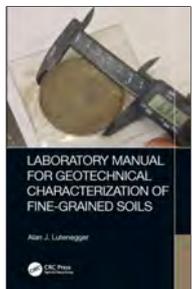
Hb: 978-0-367-75807-3: £120.00

eBook: 978-1-003-35349-2

Prev. Ed Hb: 978-1-498-75880-2

* For full contents and more information, visit: www.routledge.com/9780367758073

Laboratory Manual for Geotechnical Characterization of Fine-Grained Soils



Alan J. Lutenegeger, University of Massachusetts, Amherst, USA

Most laboratory testing of fine-grained soils involves evaluation of basic soil behaviour. Generally little attention is given to characterizing the soil in more detail, by identifying subtle changes in conditions and vertical variations in the soil and which help explain unusual behaviour. This manual covers characterization tests such as determination of carbonate content, specific surface area, cation exchange capacity, and pore fluid salinity which determine soil composition, and behaviour tests such as the Atterberg Limits tests that demonstrate how the fines fraction of a soil reacts when mixed with water or the Linear Shrinkage test.

CRC Press

Market: Civil Engineering

October 2022: 6.14 x 9.21: 330pp

Hb: 978-1-032-20345-4: £79.99

eBook: 978-1-003-26328-9

* For full contents and more information, visit: www.routledge.com/9781032203454

Pipeline Valve Technology

A Practical Guide

Karan Sotoodeh, University of Stavanger, Norway

Pipeline valves require particular attention to ensure they are safely designed, installed and maintained, due to the high stakes. Failure would result in environmental pollution, the destruction of expensive assets and potentially loss of life. This requires specialist processes throughout the lifecycle of the valve. This book is a key guide to these processes. Beginning by looking at the design of pipeline valves, it details how conserving weight and space is prioritised, how materials are chosen, thickness calculated and how leakage is minimised.

CRC Press

Market: Mechanical Engineering

December 2022: 6.14 x 9.21: 240pp

Hb: 978-1-032-38056-8: £68.99

eBook: 978-1-003-34331-8

* For full contents and more information, visit: www.routledge.com/9781032380568

2nd Edition

Pressuremeters in Geotechnical Design

B.G. Clarke, University of Leeds, UK

The pressuremeter quantifies in-situ stress, stiffness, strength and permeability – the essential properties needed to design geotechnical structures – using pressuremeter specific and empirical design methods, and numerical analyses.

This reference book for professional and academic engineering geologists and geotechnical, civil and structural engineers covers the types of pressuremeter and the control equipment, methods of installation, test procedures, methods of analysis including direct and indirect methods of interpretation, and application in design. This is supported by an exemplar specification for field operations with the interpretation of the results.

CRC Press

Market: geotechnical and foundation engineers; civil and structural engineers; advanced students in these disciplines

November 2022: 6.85 x 9.69: 352pp

Hb: 978-0-367-46468-4: £140.00

eBook: 978-1-003-02892-5

Prev. Ed Hb: 978-0-751-40041-0

* For full contents and more information, visit: www.routledge.com/9780367464684

Safety Management Systems and their Origins

Insights from the Aviation Industry

Corinne Bieder

Safety Management Systems and their Origins: Insights from the Aviation Industry presents different perspectives on SMS to better decode what it means as a safety approach and what it implicitly conveys beyond safety. Using the aviation industry as the basis for analysis, the book examines where SMS stands in terms of safety enhancement.

CRC Press

Market: Engineering - Aviation

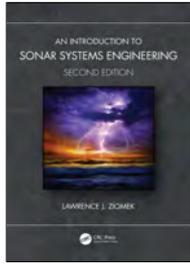
November 2022: 6.14 x 9.21: 208pp

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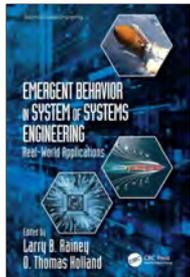
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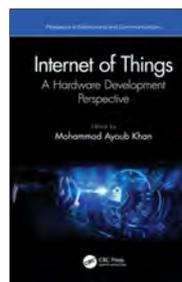
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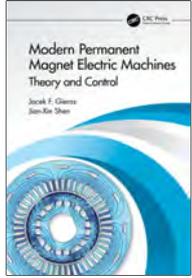
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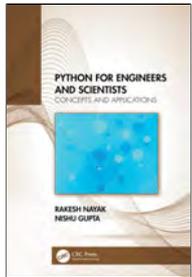
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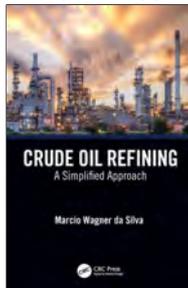
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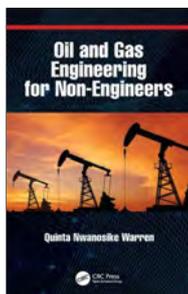
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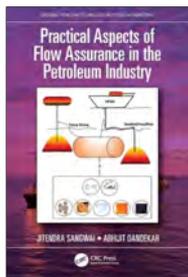
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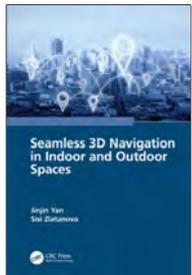
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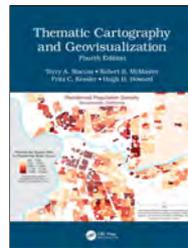
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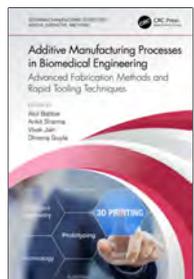
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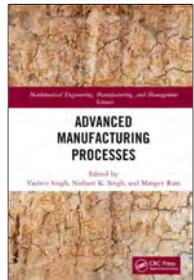
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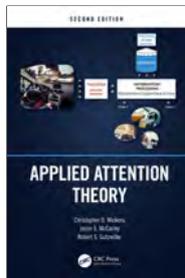
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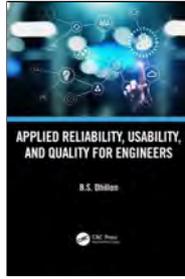
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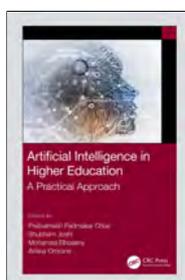
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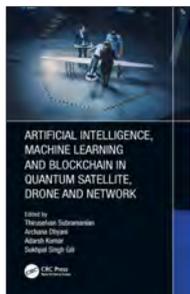
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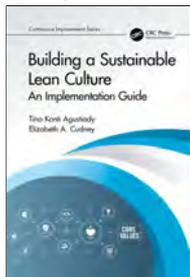
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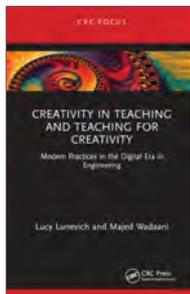
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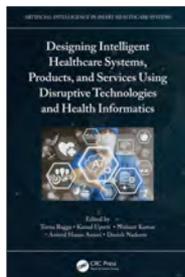
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Edited by **Teena Bagga**, Amity University, Noida, **Kamal Upreti**, IEC, Ghaziabad, **Nishant Kumar**, CHRIST (Deemed to be University), **Amirul Hasan Ansari**, Jamia Millia Islamia University and **Danish Nadeem**, Atos Consulting

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CRC Press

Market: Engineering: Industrial and Manufacturing Engineering

August 2022: 6.14 x 9.21: 294pp

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eBook: 978-1-003-21710-7

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Discrete Stochastic Models and Applications for Reliability Engineering and Statistical Quality Control



Serkan Eryilmaz, Atilim University Rektorluk, Ankara

The book describes discrete stochastic models along with real-life examples and explores not only well-known models, but also comparatively lesser known ones. It includes definitions, concepts, and methods with a clear understanding of their use in reliability engineering and statistical quality control fields. Also covered are the recent advances and established connections between the theoretical framework of discrete stochastic models and their engineering applications.

CRC Press

Market: Engineering - Industrial and Manufacturing

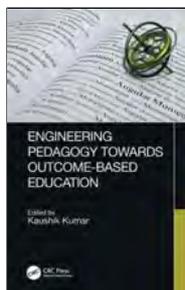
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eBook: 978-1-003-16063-2

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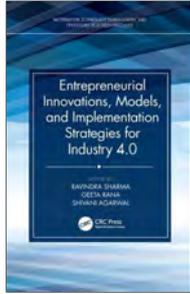
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Entrepreneurial Innovations, Models, and Implementation Strategies for Industry 4.0



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CRC Press

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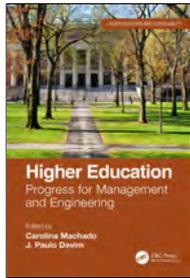
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July 2022: 6.14 x 9.21: 104pp

Hb: 978-0-367-44418-1: **£140.00**

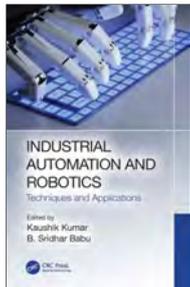
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CRC Press

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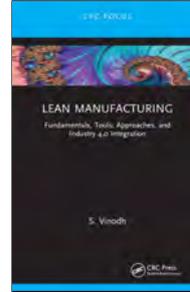
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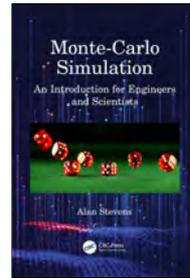
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CRC Press

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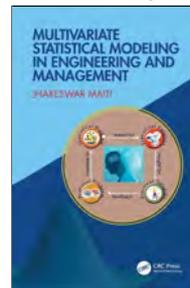
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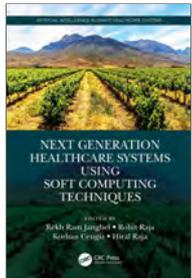
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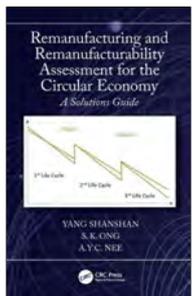
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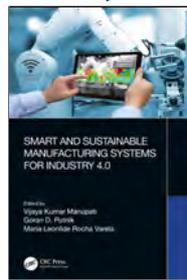
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CRC Press

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August 2022: 6.14 x 9.21: 264pp

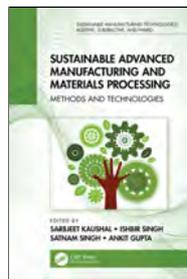
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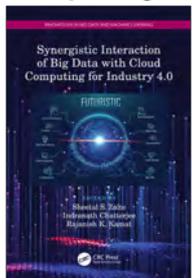
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November 2022: 6.14 x 9.21: 216pp

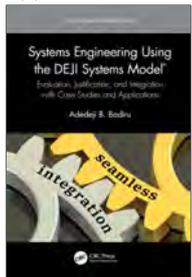
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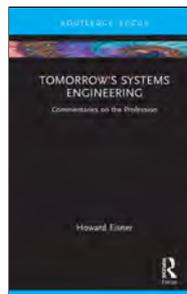
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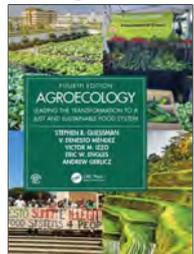
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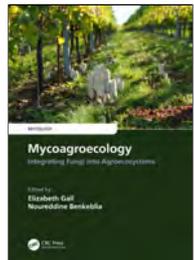
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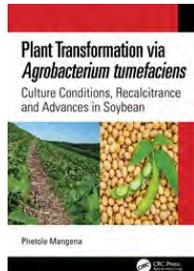
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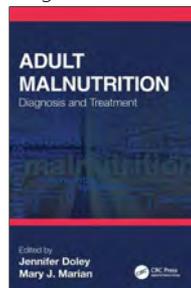
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CRC Press

Market: Food Science & Technology

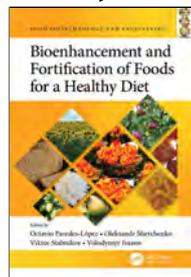
December 2022: 7 x 10: 256pp

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Market: Food Science & Technology

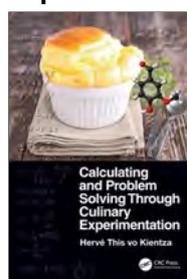
August 2022: 6.14 x 9.21: 356pp

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* For full contents and more information, visit: www.routledge.com/9781032113777

Calculating and Problem Solving Through Culinary Experimentation



Hervé This and **Kientza**, INRAE/AgroParisTech

This book offers an appealing approach to teaching experimental design and scientific calculations. Students are invited first to make simple experiments in order to get a clear idea of the (culinary) phenomena that they will be invited to investigate, and then are asked simple questions about the phenomena, for which they have to transform their knowledge into skills, using a clear strategy that is explained throughout. Indeed, the is "problem solving based on experiments", and all this about food and cooking.

A unique mix of culinary arts and correct calculations, this book is useful to students as well as professors in chemistry, physics, biology, food science and technology.

CRC Press

Market: Food Science & Technology

September 2022: 7 x 10: 260pp

Hb: 978-1-032-28714-0: **£120.00**

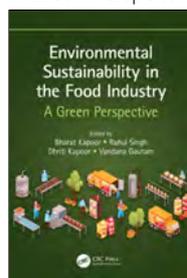
Pb: 978-1-032-28650-1: **£44.99**

eBook: 978-1-003-29815-1

* For full contents and more information, visit: www.routledge.com/9781032286501

Environmental Sustainability in the Food Industry

A Green Perspective



Edited by **Bharat Kapoor**, **Rahul Singh**, **Dhriti Kapoor** and **Vandana Gautam**

This book delves into the effect of food processing on different aspects such as the environment, human health, nutrition, energy efficiency, nanotechnology in food industry and to maintain ecological sustainability.

This book presents eco-friendly approaches to reduce impact of food processing on the environment and to promote sustainable development. The focus of this book is to implement green practices in food industry to reduce negative impacts of food processing on the ecosystem and to improve food quality for better human health & nutrition. It also shows the food industry's focus on sustainable aspects in resource conservation and in reducing energy consumption.

CRC Press

Market: Food Science & Technology

December 2022: 6.14 x 9.21: 168pp

Hb: 978-1-032-19303-8: **£150.00**

Pb: 978-1-032-16461-8: **£59.99**

eBook: 978-1-003-25856-8

* For full contents and more information, visit: www.routledge.com/9781032164618

Food Processing Waste and Utilization

Tackling Pollution and Enhancing Product Recovery



Edited by **Sanju Bala Dhull**, Department of Food Science and Technology, Chaudhary Devi Lal University, Haryana, India, **Ajay Singh**, Mata Gujri College and **Pradyuman Kumar**, Sant Longowal Institute of Engineering and Technology Department of Food Engineering and Technology

Because of its high Chemical Oxygen Demand (COD) and sheer volume, waste from food processing has significant potential to pollute land, water, and air. Both environmentally and economically, it is important to treat properly the food processing wastes including the recovery of valuable products.

This book discusses possible solutions to tackle food waste generation and its further utilization. It addresses process

engineering economics, microbiology of waste recycling and biochemical, and nutritional aspects of food waste processing. The book includes detailed guidance and case-studies about utilization/valorization of food waste.

CRC Press

Market: Food Science & Technology

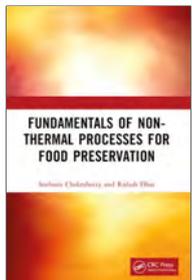
November 2022: 7 x 10: 380pp

Hb: 978-1-032-06294-5: **£150.00**

eBook: 978-1-003-20768-9

* For full contents and more information, visit: www.routledge.com/9781032062945

Fundamentals of Non-Thermal Processes for Food Preservation



Snehasis Chakraborty and Rishab Dhar

The ten chapters of this textbook, written in a simple but scientific language, encompass all the non-thermal treatments in-depth, from concepts to technological advances. The book provides complete study material in a single source including such pedagogical features as multiple-choice questions, solved numerical problems, and short questions.

CRC Press

Market: Food Science & Technology

September 2022: 6.14 x 9.21: 176pp

Hb: 978-1-032-05909-9: **£120.00**

Pb: 978-1-032-04059-2: **£44.99**

eBook: 978-1-003-19980-9

* For full contents and more information, visit: www.routledge.com/9781032040592



Handbook of Nanotechnology in Nutraceuticals

Edited by Shakeel Ahmed, Tanima Bhattacharya, Annu and Akbar Ali

This book highlights the impact of nanotechnology in food industries. It focuses on the application of Nanotechnology in nutraceuticals and food industries to improve the overall quality of life. The book also addresses some important applications of nanonutraceuticals in the treatment of different diseases such as oxidative stress, cancer, neurodegenerative disorders, cardiovascular diseases etc. It is a valuable reference for nanotechnologists, scientists, food industries, researchers working in the field of food technology, food science, pharmaceuticals, and nutraceuticals.

CRC Press

Market: Food Science & Technology

November 2022: 7 x 10: 484pp

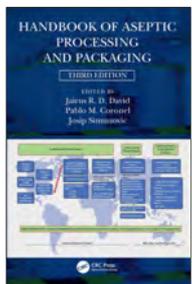
Hb: 978-1-032-12791-0: **£140.00**

eBook: 978-1-003-24472-1

* For full contents and more information, visit: www.routledge.com/9781032127910

3rd Edition

Handbook of Aseptic Processing and Packaging



Edited by Jairus R. D. David, JRD Food Technology Consulting, LLC, Pablo M. Coronel, CRB Consulting Engineers and Josip Simunovic, Dept of Food, Bioprocessing and Nutrition Sciences, NC State University

Significant changes have taken place in several aseptic processing and packaging areas since the 2nd edition of this book was published. These include aseptic filling of plant based beverages for non-refrigerated shelf stable formats for longer shelf life and sustainable packaging along with cost of environmental benefits to leverage savings on energy and carbon footprint. Contributors to this volume have more than 250 years of combined experience encompassing manufacturing, innovation in processing and packaging, R&D, quality assurance and compliance. Their insight provides a comprehensive update on this rapidly developing leading edge technology for the food processing industry.

CRC Press

Market: Food Science & Technology

September 2022: 7 x 10: 702pp

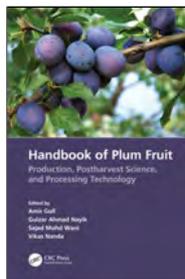
Hb: 978-0-367-72480-1: **£190.00**

eBook: 978-1-003-15865-3

* For full contents and more information, visit: www.routledge.com/9780367724801

Handbook of Plum Fruit

Production, Postharvest Science, and Processing Technology



Edited by Amir Gull, Gulzar Ahmad Nayik, Govt. Degree College, Dept. of Food Science & Technology, India, Sajad Mohd Wani and Vikas Nanda

Divided into two main parts, the first eight chapters provide insight about preharvesting processing of plum, whereas the later chapters discuss the postharvesting processing of plum. This book also includes vital chapters on varietal improvement and rootstock breeding, high density planting, and pollination. After harvesting, plum quality quickly diminishes mainly due to weight loss, total acidity, firmness losses, and decay incidence.

This book provides comprehensive information on recent advances in post harvesting technologies of plum. The health benefits of plum and its products are also addressed.

CRC Press

Market: Food Science & Technology

September 2022: 6.14 x 9.21: 364pp

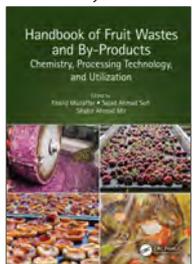
Hb: 978-1-032-06242-6: **£155.00**

eBook: 978-1-003-20544-9

* For full contents and more information, visit: www.routledge.com/9781032062426

Handbook of Fruit Wastes and By-Products

Chemistry, Processing Technology, and Utilization



Edited by Khalid Muzaffar, Sajad Ahmad Sofi and Shabir Ahmad Mir, Department of Food Technology, Islamic University of Science & Technology

This book deals with the various techniques and methods involved in processing of fruit byproducts. This is the first book devoted to fruit processing by-products of wide range of important fruits including tropical, subtropical and temperate fruits; and their possible utilization in food and non-food industries.

It also includes various novel technologies useful in extraction and evaluation of the functional components from these fruit processing byproducts, addressing how the proper utilization

of fruit processing byproducts will not only emerge as a source of extra profit to the fruit processing industry but also will help in lessen the environment pollution.

CRC Press

Market: Food Science & Technology

October 2022: 7 x 10: 351pp

Hb: 978-0-367-72474-0: **£140.00**

eBook: 978-1-003-16446-3

* For full contents and more information, visit: www.routledge.com/9780367724740

Healthy Ageing in Asia

Culture, Prevention and Wellness



Edited by Goh Cheng Soon, Gerard Bodeker and Kishan Kariippanan

Asia is the world's most populous region and has the highest per capita number of older people in the world. It is also home to the healthy ageing traditions of Ayurveda and Chinese Medicine and the rich regional traditions of Japan, Korea, Southeast Asia, and South Asia.

This book addresses policies related to ageing, traditional Asian approaches to ageing, an integrated medical system approaches to ageing, ageing in place, and community empowerment.

CRC Press

Market: Food & Nutrition

July 2022: 6.14 x 9.21: 344pp

Hb: 978-0-367-48874-1: **£150.00**

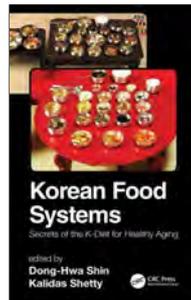
Pb: 978-0-367-47388-4: **£52.99**

eBook: 978-1-003-04327-0

* For full contents and more information, visit: www.routledge.com/9780367473884

Korean Food Systems

Secrets of the K-Diet for Healthy Aging



Edited by **Dong-Hwa Shin** and **Kalidas Shetty**, North Dakota State University, USA

Among many insights for longevity among the people of ROK is the diverse Korean ethnic diet with roots in traditional diet that has been preserved for centuries. *Korean Food Systems: Secrets of the K-Diet for Healthy Aging* provides an integrated and holistic approach towards the understanding how food systems of ROK and experiences of the last 60 plus years has been sustained by traditions and ecology integrated with contemporary advances in technology and economy. A collaboration between various outstanding authors, the insights from this book can provide global examples to align similar approach and policies in other countries in different ecologies of planet earth.

CRC Press

Market: Food Science & Technology

September 2022: 6.14 x 9.21: 248pp

Hb: 978-1-032-23112-9: **£155.00**

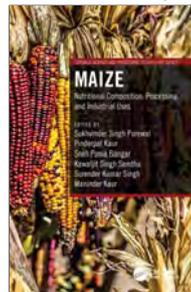
Pb: 978-1-032-23109-9: **£52.99**

eBook: 978-1-003-27573-2

* For full contents and more information, visit: www.routledge.com/9781032231099

Maize

Nutritional Composition, Processing, and Industrial Uses



Edited by **Sukhvinder Singh Purewal**, MAHARAJA RANJIT SINGH PUNJAB TECHNICAL UNIVERSITY, **Pinderpal Kaur**, Maharaja Ranjit Singh PUNjab Technical University, **Sneh Punia Bangar**, Department of Food Science and technology, Chaudhary Devi Lal University, Sirsa, India, **Kawaljit Singh Sandhu**, **Surender Kumar Singh**, ICAR - National Research Centre for Integrated Pest Management and **Maninder Kaur**
Series: Cereals

With 1 billion tons of maize harvested every year, it is widely used at industrial scale to prepare corn ethanol, animal feed and other maize products, such as corn starch and corn syrup. This book provides in depth information about maize flour, its different components such as starch, protein, bioactive

metabolites and their uses in food products. This book covers all aspects of recent research about the maize and it provides updated information on maize. In depth information is discussed regarding various health benefiting nutrient components of maize flour, providing meaningful information for product formulation.

CRC Press

Market: Food Science & Technology

September 2022: 6.14 x 9.21: 383pp

Hb: 978-1-032-12792-7: **£150.00**

eBook: 978-1-003-24523-0

* For full contents and more information, visit: www.routledge.com/9781032127927

Mycotoxins in Food and Feed

Detection and Management Strategies

Edited by **Pradeep Kumar**, **Madhu Kamle** and **Dipendra Kumar Mahato**

Mycotoxins represent an assorted range of secondary fungal metabolites that extensively occur in numerous food and feed ingredients at any stage during pre- and post-harvest conditions. Mycotoxin contamination in food and feed cause acute and chronic mycotoxicosis, including teratogenic, carcinogenic, oestrogenic, neurotoxic, and immunosuppressive effects and several others health issues. This book presents an overview of all the major mycotoxins, sources of production, chemistry and biosynthesis, occurrence in food and feed, effect on agriculture, effect on human health, detection technique, masked mycotoxins, and management and control strategies.

CRC Press

Market: Food Science & Technology

January 2023: 6.14 x 9.21: 496pp

Hb: 978-1-032-11392-0: **£150.00**

eBook: 978-1-003-24220-8

* For full contents and more information, visit: www.routledge.com/9781032113920

Non-Thermal Processing Technologies for the Fruit and Vegetable Industry

Edited by **M. Selvamuthukumar**, Institute of Technology, Haramaya University

This book introduces the various non-thermal food processing techniques especially employed for fruits and vegetables processing industries; it deals with the effect of several non-thermal processing techniques on quality aspects of processed fruits and vegetable products and keeping quality and consumer acceptability. Readers will come to know the current and emerging trends in use of non-thermal processing techniques for its application in several fruits and vegetables based food processing industries.

CRC Press

Market: Food Science & Technology

November 2022: 7 x 10: 282pp

Hb: 978-1-032-08029-1: **£155.00**

eBook: 978-1-003-22217-0

* For full contents and more information, visit: www.routledge.com/9781032080291

Spice Bioactive Compounds

Properties, Applications, and Health Benefits



Edited by **Sajad Ahmad Wani**, **Ajay Singh**, Mata Gujri College and **Pradyuman Kumar**, Sant Longowal Institute of Engineering and Technology Department of Food Engineering and Technology

This book presents necessary features related to spices and their properties. Exploring the most recent research related to the extraction, isolation, encapsulation, identification, and characterization of bioactive compounds present in spices, this book also covers the health element of spices and its utilization as a treatment for various disorders.

Written by experts in their field, this book will be useful to anyone in the food or pharmaceutical industry, as well as those who

have an interest in the use of such bioactive compounds for the production of drugs and functional foods.

CRC Press

Market: Food Science & Technology

September 2022: 7 x 10: 360pp

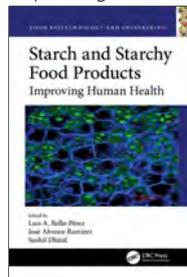
Hb: 978-1-032-06291-4: **£155.00**

eBook: 978-1-003-21538-7

* For full contents and more information, visit: www.routledge.com/9781032062914

Starch and Starchy Food Products

Improving Human Health



Edited by **Luis A. Bello-Pérez**, **José Alvarez-Ramírez** and **Sushil Dhital**

Series: Food Biotechnology and Engineering

The book reviews existing research on various aspects of starch, including physicochemical, nutritional and functional properties, as well as on various applications in addition to foods. Particular emphasis is on the various physical and chemical modifications, which are aimed at improving the properties and applicability of starch.

CRC Press

Market: Food Science & Technology

September 2022: 6.14 x 9.21: 350pp

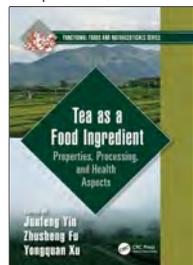
Hb: 978-0-367-54343-3: **£155.00**

eBook: 978-1-003-08892-9

* For full contents and more information, visit: www.routledge.com/9780367543433

Tea as a Food Ingredient

Properties, Processing, and Health Aspects



Edited by **Junfeng Yin, Zhusheng Fu and Yongquan Xu**
Series: *Functional Foods and Nutraceuticals*

This book provides extensive scientific information on the properties of tea foods, chemical properties, formulations, and tea as ingredients to develop new health foods. It describes tea food production, chemical and physical properties, sensory quality, processing technology and health benefits. Early chapters present information relating to scientific studies on the health benefits of tea, and the latter chapters focus on introducing tea products into foods, which is the major focus of the entire book.

CRC Press

Market: Food Science & Technology

July 2022: 7 x 10: 396pp

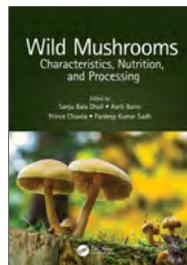
Hb: 978-0-367-68571-3: **£150.00**

eBook: 978-1-003-15282-8

* For full contents and more information, visit: www.routledge.com/9780367685713

Wild Mushrooms

Characteristics, Nutrition, and Processing



Edited by **Sanju Bala Dhull, Chaudhary Devi Lal University, Haryana, India, Aarti Bains, Prince Chawla, Shoolini University, Himachal Pradesh, India and Pardeep Kumar Sadh**

The book represents a comprehensive assessment of current knowledge about the edible mushrooms commercialization, especially as nutraceuticals and dietary supplement formulation, mineral supplementation and source of quality proteins in foods and diet. The health benefits of edible mushrooms, nature and chemistry of bioactive components and in-vitro and in-vivo bioactivity of edible mushrooms are also highlighted in different chapters. This book should be of interest to a large and varied

audience of researchers in academia, industry, nutritionists, dietitian, food scientists, agriculturists and regulators.

CRC Press

Market: Food Science & Technology

August 2022: 7 x 10: 544pp

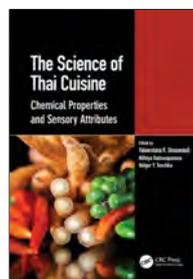
Hb: 978-0-367-69251-3: **£155.00**

eBook: 978-1-003-15258-3

* For full contents and more information, visit: www.routledge.com/9780367692513

The Science of Thai Cuisine

Chemical Properties and Sensory Attributes



Edited by **Valeeratana K. Sinsawasdi, Nithiya Rattanapanone and Holger Y. Toschka**

This book approaches the art of cooking and serving from the perspective of science and proposes the possible rationales behind Thai culinary art. With applied chemistry and sensory science, it bridges the gap between food science and culinary arts, explaining the functional properties and changes in major ingredients and techniques used in Thai cuisine.

This book will be beneficial to professionals in the food industry, appealing to chefs, food scientists, sensory analysis experts, as well as anyone who has an interest in Thai culture.

CRC Press

Market: Food Science & Technology

September 2022: 6.14 x 9.21: 296pp

Hb: 978-1-032-02328-1: **£150.00**

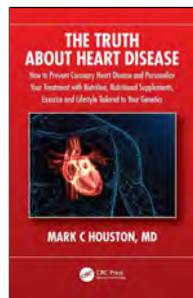
Pb: 978-0-367-76335-0: **£59.99**

eBook: 978-1-003-18292-4

* For full contents and more information, visit: www.routledge.com/9780367763350

The Truth About Heart Disease

How to Prevent Coronary Heart Disease and Personalize Your Treatment with Nutrition, Nutritional Supplements, Exercise and Lifestyle Tailored to Your Genetics



Mark Houston

This book looks at heart disease prevention, recognition, and easy-to-do interventions. It presents information on diagnosis, genetics, pathophysiology, physiology, and prevention of coronary heart disease and myocardial infarction.

CRC Press

Market: Medicine

August 2022: 6.14 x 9.21: 320pp

Hb: 978-1-032-23090-0: **£150.00**

Pb: 978-1-032-23087-0: **£42.99**

eBook: 978-1-003-27560-2

* For full contents and more information, visit: www.routledge.com/9781032230870

Data Science

A First Introduction



Tiffany Timbers, University of British Columbia, Trevor Campbell and Melissa Lee

Series: *Chapman & Hall/CRC Data Science Series*

Data Science: A First Introduction focuses on using the R programming language in Jupyter notebooks to perform data manipulation and cleaning, create effective visualizations, and extract insights from data using classification, regression, clustering, and inference.

The text emphasizes workflows that are clear, reproducible, and shareable, and includes coverage of the basics of version control. All source code is available online, demonstrating the use of good reproducible project workflows.

Chapman and Hall/CRC

Market: Statistics

July 2022: 7 x 10: 456pp

Hb: 978-0-367-53217-8: £112.00

Pb: 978-0-367-52468-5: £44.99

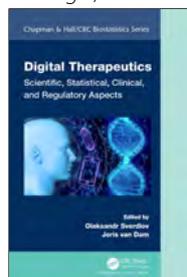
eBook: 978-1-003-08097-8

* For full contents and more information, visit: www.routledge.com/9780367524685



Digital Therapeutics

Strategic, Scientific, Developmental, and Regulatory Aspects



Edited by Oleksandr Sverdllov, EMD Serono, Inc., Billerica, Massachusetts, USA and Joris van Dam

Series: *Chapman & Hall/CRC Biostatistics Series*

Digital Therapeutics: Scientific, Statistical, Clinical, and Regulatory Aspects is an unparalleled summary of the current scientific, statistical, developmental, and regulatory aspects of DTx which is poised to become the fastest growing area of the biopharmaceutical and digital medicine product development. This edited volume intends to provide a systematic exposition to digital therapeutics through 19 peer-reviewed chapters written by subject matter experts in this emerging field.

Chapman and Hall/CRC

Market: Statistics

December 2022: 7 x 10: 464pp

Hb: 978-0-367-86159-9: £170.00

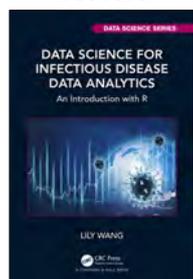
eBook: 978-1-003-01728-8

* For full contents and more information, visit: www.routledge.com/9780367861599



Data Science for Infectious Disease Data Analytics

An Introduction with R



Lily Wang, Iowa State University, Ames, USA

Series: *Chapman & Hall/CRC Data Science Series*

This book provides an overview of modern data science tools and methods that have been developed specifically to analyze infectious disease data. With a quick start guide to epidemiological data visualization and analysis in R, this book spans the gulf between academia and practices providing many lively, instructive data analysis examples using the most up-to-date data, such as the newly discovered coronavirus disease (COVID-19).

Aimed at readers with an undergraduate knowledge of mathematics and statistics, this book is an ideal introduction to

the development and implementation of data science in epidemiology.

Chapman and Hall/CRC

Market: Statistics

October 2022: 6.14 x 9.21: 409pp

Hb: 978-1-032-18742-6: £74.99

eBook: 978-1-003-25632-8

* For full contents and more information, visit: www.routledge.com/9781032187426

Exploring Modeling with Data and Differential Equations Using R

John Zobitz

The book provides a unique introduction to differential equations with applications to the biological and other natural sciences. Additionally, model parameterization and simulation of stochastic differential equations are explored, providing additional tools for model analysis and evaluation. This unified framework sits "at the intersection" of different mathematical subject areas, data science, statistics, and the natural sciences. The text throughout emphasizes data science workflows using the R statistical software program and the tidyverse constellation of packages. Only knowledge of calculus is needed.

Chapman and Hall/CRC

Market: Statistics

November 2022: 6.14 x 9.21: 376pp

Hb: 978-1-032-25948-2: £74.99

eBook: 978-1-003-28697-4

* For full contents and more information, visit: www.routledge.com/9781032259482



Data Science, AI, and Machine Learning in Drug Development



Edited by Harry Yang

Series: *Chapman & Hall/CRC Biostatistics Series*

The confluence of big data, AI, and machine learning has led to a paradigm shift in how innovative medicines are developed and healthcare delivered. To fully capitalize on these technological advances, it is essential to systematically harness data from diverse sources and leverage digital technologies and advanced analytics to enable data-driven decisions. Data science stands at a unique moment of opportunity to lead such a transformative change.

Chapman and Hall/CRC

Market: Statistics

October 2022: 6.14 x 9.21: 334pp

Hb: 978-0-367-70807-8: £99.99

eBook: 978-1-003-15088-6

* For full contents and more information, visit: www.routledge.com/9780367708078

Foundations of Reinforcement Learning with Applications in Finance



Ashwin Rao, Stanford University, USA and Tikhon Jelvis

This book aims to demystify Reinforcement Learning, and to make it a practically useful tool for those studying and working in applied areas — especially finance. RL is emerging as a viable and powerful technique for solving a variety of complex problems across industries that involve Sequential Optimal Decisioning under Uncertainty. Its penetration in high-profile problems like self-driving cars, robotics, and strategy games points to a future where Reinforcement Learning algorithms will have decisioning abilities far superior to humans. This book introduces the foundations of RL in a way that balances depth of understanding with clear, minimally technical delivery.

Chapman and Hall/CRC

Market: Mathematics

December 2022: 7 x 10: 598pp

Hb: 978-1-032-12412-4: £74.99

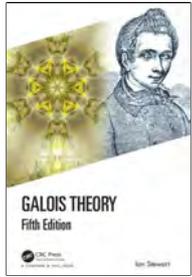
eBook: 978-1-003-22919-3

* For full contents and more information, visit: www.routledge.com/9781032124124



5th Edition

Galois Theory



Ian Stewart

Since 1973, Galois Theory has been educating undergraduate students on Galois groups and classical Galois theory. In Galois Theory, Fifth Edition, mathematician and popular science author Ian Stewart updates this well-established textbook for today's algebra students.

This bestseller continues to deliver a rigorous yet engaging treatment of the subject while keeping pace with current educational requirements. More than 200 exercises and a wealth of historical notes augment the proofs, formulas, and theorems.

Chapman and Hall/CRC

Market: Mathematics

September 2022: 6.14 x 9.21: 371pp

Hb: 978-1-032-10159-0: **£130.00**

Pb: 978-1-032-10158-3: **£49.99**

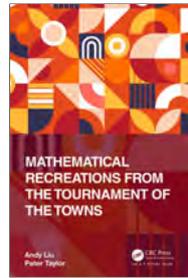
eBook: 978-1-003-21394-9

Prev. Ed Pb: 978-1-482-24582-0

* For full contents and more information, visit: www.routledge.com/9781032101583



Mathematical Recreations from the Tournament of the Towns



Andy Liu, University of Alberta, Canada and Peter Taylor, University of Canberra, Australia

Series: *AK Peters/CRC Recreational Mathematics Series*

Mathematical Recreations from the Tournament of the Towns contains the complete list of problems and solutions to the International Mathematics Tournament of the Towns from Fall 2007 to Spring 2021. The primary audience for this book is the army of recreational mathematicians united under the banner of Martin Gardner. It should also have great value to students preparing for mathematics competitions and trainers of such students. This book also provides an entry point for students in upper elementary schools.

A K Peters/CRC Press

Market: Mathematics

November 2022: 6.14 x 9.21: 472pp

Hb: 978-1-032-35292-3: **£42.99**

eBook: 978-1-003-32621-2

* For full contents and more information, visit: www.routledge.com/9781032352923



Hands-On Data Analysis in R for Finance



Jean-Francois Collard

This textbook is an introduction to data science/data analysis applied to finance, using R and its most recent and freely available extension libraries. The target audience is undergrad data science, finance and graduate students, and practitioners or professionals who need a desk reference. This content has been tested in actual university classes, and makes the reader proficient in advanced methods such as machine learning, time series analysis and principal component analysis. It assumes no prior knowledge of R, providing comprehensive explanations on how to use the most recent resources, like financial and statistics libraries or open databases on the internet.

Chapman and Hall/CRC

Market: Statistics

November 2022: 6.14 x 9.21: 416pp

Hb: 978-1-032-34097-5: **£74.99**

eBook: 978-1-003-32055-5

* For full contents and more information, visit: www.routledge.com/9781032340975



Number Savvy

From the Invention of Numbers to the Future of Data

George Sciadas

This book is written for the love of numbers. It tells their story, shows how they were invented and used to quantify our world, and explains what quantitative data mean for our lives. It aspires to contribute to overall numeracy through a tour de force presentation of the production, use, and evolution of data. It discusses the significance of standards, the use of taxonomies, and clarifies a series of misconceptions regarding the making of data. The book then describes the switch to a new research paradigm and its implications, highlights the arrival of microdata, illustrates analytical uses of data, and closes with a look at the future of data and our own role in it.

Chapman and Hall/CRC

Market: Statistics

December 2022: 6.14 x 9.21: 352pp

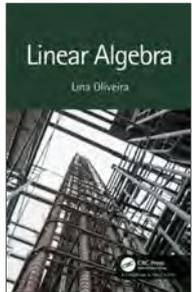
Hb: 978-1-032-36215-1: **£56.99**

Pb: 978-1-032-35721-8: **£22.99**

eBook: 978-1-003-33080-6

* For full contents and more information, visit: www.routledge.com/9781032357218

Linear Algebra



Lina Oliveira

This book is intended primarily as an undergraduate textbook but is written in such a way that it can be also a valuable resource for independent learning. The narrative of the book takes a matrix approach: the exposition is intertwined with matrices either as the main subject or as tools to explore the theory. Each chapter contains a description of its aims, a summary at the end of the chapter, exercises and solutions. The reader is carefully guided through the theory and techniques presented which are outlined throughout in "How to..." text boxes. Common mistakes and pitfalls are also pointed out as one goes along.

Chapman and Hall/CRC

Market: Mathematics

July 2022: 6.14 x 9.21: 328pp

Hb: 978-1-032-28781-2: **£120.00**

Pb: 978-0-815-37331-5: **£48.99**

eBook: 978-1-351-24345-2

* For full contents and more information, visit: www.routledge.com/9780815373315



Outstanding User Interfaces with Shiny



David Granjon, Senior Data Science Expert, Novartis, Switzerland

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

Outstanding User Interfaces with Shiny provides the reader with necessary knowledge to develop beautiful and highly interactive user interfaces. It gives the minimum requirements in HTML/JavaScript and CSS to be able to extend already existing Shiny layouts or develop new templates from scratch. Suitable for anyone with some experience of Shiny, package development and software engineering best practices, this book is an ideal guide for graduates and professionals who wish to bring their app design to the next level.

Chapman and Hall/CRC

Market: Statistics

August 2022: 7 x 10: 510pp

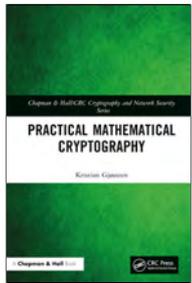
Hb: 978-0-367-64526-7: **£132.99**

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Kristian Gjøsteen

Series: *Chapman & Hall/CRC Cryptography and Network Security Series*

This book provides a clear and accessible introduction to practical mathematical cryptography. ; ; Cryptography, both as a science and as practice, lies at the intersection of mathematics and the science of computation, and the presentation emphasises the essential mathematical nature of the computations and arguments involved in cryptography.

The presentation provides a unified and consistent treatment of the most important cryptographic topics, from the initial design and analysis of basic cryptographic schemes towards

applications.

Chapman and Hall/CRC

Market: Mathematics

August 2022: 6.14 x 9.21: 546pp

Hb: 978-0-367-71085-9: £74.99

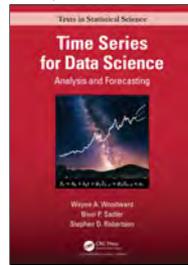
eBook: 978-1-003-14942-2

* For full contents and more information, visit: www.routledge.com/9780367710859



Time Series for Data Science

Analysis and Forecasting



Wayne A. Woodward, Southern Methodist University, Dallas, Texas, USA, Bivin Philip Sadler, Technical Assistant Professor, Southern Methodist University and Stephen Robertson

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Data Science students and practitioners want to find a forecast that "works" and don't want to be constrained to a single forecasting strategy. *Practical Time Series Analysis for Data Science* discusses techniques of ensemble modelling for combining information from several strategies. Covering time series regression models, exponential smoothing, Holt-Winters forecasting, and Neural Networks. It places a particular emphasis on classical ARMA and ARIMA models that is often lacking from

other textbooks on the subject.

Chapman and Hall/CRC

Market: Statistics

August 2022: 7 x 10: 528pp

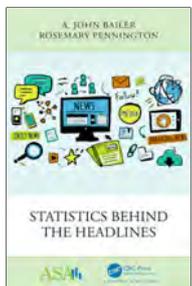
Hb: 978-0-367-53794-4: £89.00

eBook: 978-1-003-08907-0

* For full contents and more information, visit: www.routledge.com/9780367537944



Statistics Behind the Headlines



A. John Bailer and Rosemary Pennington

Series: *ASA-CRC Series on Statistical Reasoning in Science and Society*

The only prerequisite for enjoying this book is an interest in developing the skills and insights for better understanding news stories that incorporate quantitative information. The chapters kick off with a news story headline and a summary of the story itself. The meat of each chapter consists of an exploration of the statistical and journalism concepts needed to understand the data analyzed and reported in the story.

Chapman and Hall/CRC

Market: Statistics

September 2022: 5.5 x 8.5: 204pp

Hb: 978-0-367-90253-7: £56.99

Pb: 978-0-367-90252-0: £22.99

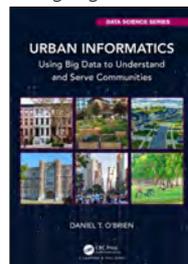
eBook: 978-1-003-02340-1

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Urban Informatics

Using Big Data to Understand and Serve Communities



Daniel T. O'Brien, School of Public Policy and Urban Affairs, Northeastern University, Boston, USA

Series: *Chapman & Hall/CRC Data Science Series*

Urban Informatics introduces the reader to the tools of data management, analysis, and manipulation using R statistical software. Designed for undergraduate and above level courses, this book is an ideal onramp for the study of urban informatics and how to translate novel data sets into new insights and practical tools.

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Exploratory Data Assignment that prompts readers to practice their new skills on a data set of their choice.

Chapman and Hall/CRC

November 2022: 7 x 10: 336pp

Hb: 978-1-032-27468-3: £122.99

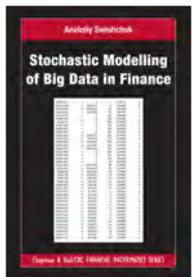
Pb: 978-1-032-26459-2: £48.99

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* For full contents and more information, visit: www.routledge.com/9781032264592



Stochastic Modelling of Big Data in Finance



Anatoliy Swishchuk, University of Calgary, Alberta, Canada

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This book provides a rigorous overview and exploration of stochastic modelling of big data in finance (BDF). The book describes various stochastic models, including multivariate models, to deal with big data in finance. This includes data in high-frequency and algorithmic trading, specifically in limit order books (LOB), and shows how those models can be applied to different datasets to describe the dynamics of LOB, and to figure out which model is the best with respect to a specific data set. The results of the book may be used to also solve acquisition, liquidation and market making problems, and other optimization problems in finance.

Chapman and Hall/CRC

Market: Financial Mathematics

November 2022: 6.14 x 9.21: 304pp

Hb: 978-1-032-20926-5: £74.99

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* For full contents and more information, visit: www.routledge.com/9781032209265



2nd Edition

100 Cases in Acute Medicine

Henry Fok, St George's Uni of London, Kerry Layne, Guy's & St Thomas' NHS Foundation Trust, London, UK and Adam Nabeebaccus, Specialist Registrar, Cardiology, King's College, London, UK

Series: 100 Cases

100 Cases in Acute Medicine presents 100 acute conditions commonly seen by medical students and junior doctors in the emergency department, or on the ward or in the community setting. A succinct summary of the patient's history, examination and initial investigations, including photographs where relevant, is followed by questions on the diagnosis and management of each case. The answer includes a detailed discussion on each topic, with further illustration where appropriate, providing an essential revision aid as well as a practical guide for students and junior doctors.

CRC Press

Market: Medicine

September 2022: 6.85 x 9.69: 322pp

Hb: 978-1-032-14803-8: £68.99

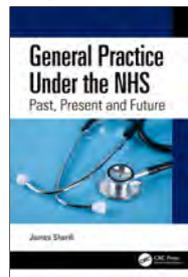
Pb: 978-1-032-14801-4: £26.99

eBook: 978-1-003-24117-1

Prev. Ed Pb: 978-1-444-13519-0

* For full contents and more information, visit: www.routledge.com/9781032148014**General Practice Under the NHS**

Past, Present and Future



James Sherifi

This accessible text covers the entirety of General Practice and the General Practitioner, from student studies to retirement and from the beginning of the NHS to the present day. It provides a comprehensive historic overview representing both academic and frontline perspectives, describing what has, and has not been, adopted as the specialty has evolved. The details within each chapter represent the views of the average, front-line British GP and illustrate how the changes over the decades have impacted patient care and its delivery. The perspective often differs from that which prevails in many academic tomes on the subject.

CRC Press

Market: Medicine

August 2022: 6.14 x 9.21: 320pp

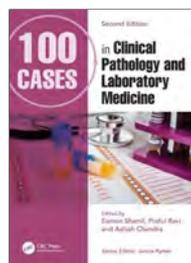
Hb: 978-1-032-18831-7: £74.99

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eBook: 978-1-003-25646-5

* For full contents and more information, visit: www.routledge.com/9781032188294

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100 Cases in Clinical Pathology and Laboratory Medicine

Edited by Eamon Shamil, Specialist Registrar in ENT - Head & Neck Surgery, Guy's and St Thomas' NHS Foundation Trust, London, UK, Praful Ravi, Dana-Farber Cancer Inst and Ashish Chandra, MD FRCPath DipRCPath (Cytol) Consultant Histopathologist, Guy's & St Thomas' NHS Foundation Trust, London, UK

Series: 100 Cases

100 Cases in Clinical Pathology and Laboratory Medicine presents 100 clinical scenarios commonly seen by medical students and junior doctors in the emergency department, outpatient clinic, operating theatre or in general practice. A succinct summary of

the patient's history, examination and initial investigations is followed by questions on each case. The answer includes a detailed discussion on each topic, providing an essential revision aid as well as a practical guide for students and junior doctors, especially those preparing for undergraduate and postgraduate examinations.

CRC Press

Market: Medicine

December 2022: 6.85 x 9.69: 362pp

Hb: 978-1-032-15139-7: £74.99

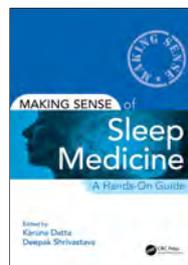
Pb: 978-1-032-15137-3: £29.99

eBook: 978-1-003-24269-7

Prev. Ed Pb: 978-1-444-17998-9

* For full contents and more information, visit: www.routledge.com/9781032151373**Making Sense of Sleep Medicine**

A Hands-On Guide



Edited by Karuna Datta, Armed Forces Medical College, Pune, India and Deepak Shrivastava, UC Davis School of Medicine, Sacramento, California, USA

Series: Making Sense of

This is a practical and patient-complaint focused handbook, directed to motivate non-sleep experts and beginners in sleep medicine and technology. This book provides a basic review of the area of sleep, identifies some common patient presentations and illustrates the types of investigations that should be requested. With sleep and breathing problems being so common and affecting many other chronic clinical conditions, it is important that primary care and other general physicians

as well as allied health practitioners have a greater appreciation of this area. This text is a valuable "go-to" handbook for the occasional "sleep" practitioner to refer to.

CRC Press

Market: Medicine

December 2022: 7 x 10: 168pp

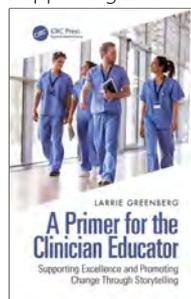
Hb: 978-0-367-55409-5: £89.99

Pb: 978-0-367-55408-8: £34.99

eBook: 978-1-003-09338-1

* For full contents and more information, visit: www.routledge.com/9780367554088**A Primer for the Clinician Educator**

Supporting Excellence and Promoting Change Through Storytelling



Larrie Greenberg, Children's National Med. Cent, MD, USA

This concise, introductory primer has been written specifically for clinician educators (CEs), particularly those new to the role and those working to further develop their experience and knowledge. Drawing on his dual roles as a pediatrician and medical educationalist, the author uses story-telling and personal experience alongside practical tips and tricks to support the reader in their teaching, patient care and educational scholarship, helping both junior faculty and more senior educators to avoid pitfalls in all segments of their careers.

CRC Press

Market: Medicine

July 2022: 5.5 x 8.5: 131pp

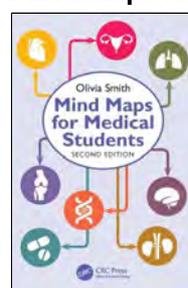
Hb: 978-1-032-28317-3: £89.99

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eBook: 978-1-003-29627-0

* For full contents and more information, visit: www.routledge.com/9781032283166

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Olivia Antoinette Mary Smith, Final Year Medical Student, Hull York Medical School, York, UK

This popular learning and revision aid is designed specifically to help medical students memorise essential clinical facts, invaluable throughout medical students and particularly useful in the pressured run-up to final exams. Over 100 maps are organised by body system, and include disease definitions and descriptions, pathophysiology, causes, risk factors, investigations, treatments and complications where relevant and applicable.

CRC Press

Market: Medicine

September 2022: 5.06 x 7.81: 276pp

Hb: 978-1-032-20114-6: £42.99

Pb: 978-1-032-20112-2: £16.99

eBook: 978-1-003-26227-5

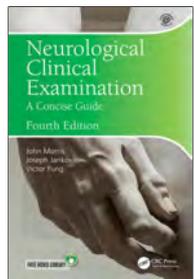
Prev. Ed Pb: 978-1-482-25031-2

* For full contents and more information, visit: www.routledge.com/9781032201122

4th Edition

Neurological Clinical Examination

A Concise Guide



John Morris, University of Sydney, NSW, Australia, Joseph Jankovic, Baylor College of Medicine, Houston, Texas, USA and Victor Fung

This book and video collection provide a practical guide to the clinical neurological examination, an essential tool in the diagnosis of neurological conditions encountered in the outpatient clinic and hospital ward. Each chapter covers a different condition and uses a step-by-step approach selecting those aspects of the clinical examination which are most likely to lead to the correct diagnosis. Primary care physicians, neurologists, and trainees preparing for certifying examinations will find this book an invaluable learning companion and essential tool for the diagnosis of neurological disorders.

CRC Press

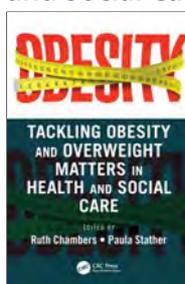
October 2022: 6.14 x 9.21: 166pp

Hb: 978-0-367-63435-3: £89.99

Pb: 978-0-367-55612-9: £34.99

eBook: 978-1-003-11916-6

Prev. Ed Pb: 978-1-444-14538-0

* For full contents and more information, visit: www.routledge.com/9780367556129**Tackling Obesity and Overweight Matters in Health and Social Care**

Edited by Ruth Chambers, NHS and Paula Stather, NHS

This practical guide helps health or social care professionals across all settings to understand how important it is to prevent and manage their service users' overweight and obesity, and motivate them to achieve and maintain a healthy weight, so reducing their risk of associated health conditions such as diabetes and now COVID-19. Obesity and associated health problems represent a growing health burden around the world, with rates throughout Europe increasing sharply over the last forty years, second only to the United States and closely followed by many nations in Asia.

CRC Press

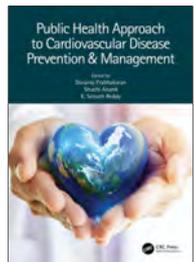
Market: Medicine

July 2022: 6.14 x 9.21: 189pp

Hb: 978-1-032-18951-2: £74.99

Pb: 978-1-032-18947-5: £29.99

eBook: 978-1-003-25712-7

* For full contents and more information, visit: www.routledge.com/9781032189475**Public Health Approach to Cardiovascular Disease Prevention & Management**

Edited by Dorairaj Prabhakaran, Public Health Foundation of India, Gurgaon, India, Shuchi Anand, Stanford University, USA and K Srinath Reddy, Public Health Foundation of India, Gurgaon, India

Series: *Public Health Approach*

Cardiovascular Diseases (CVDs) are the number one cause of death and disability globally, being the most important public health problem that needs to be tackled as more people die annually from CVDs than from any other cause. Over three quarters of CVD deaths take place in low- and middle-income countries. This book on cardio-vascular diseases provides an overview of the global and regional challenges associated with

CVDs. Coupled with case studies and theoretical concepts, it helps the reader to contextualize CVDs in the broader public health system and the administrative aspects of practicing CVD control approaches for improved population health in their local setting.

CRC Press

Market: Medicine

December 2022: 7 x 10: 250pp

Hb: 978-1-032-40357-1: £125.00

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How to appraise, conduct and publish reviews

Khalid Saeed Khan and Javier Zamora

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CRC Press

Market: Medicine

December 2022: 6.14 x 9.21: 264pp

Hb: 978-1-032-11473-6: £99.99

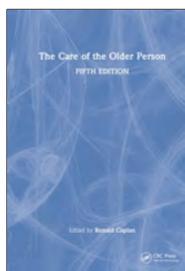
Pb: 978-1-032-11467-5: £36.99

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This fifth edition brings you updated and revised content, built on the basic understanding that medicine does not work in a vacuum, but rather alongside other disciplines to provide the environment for a healthy and fulfilling long life. Edited by alumni and senior faculty at McGill University, with international contributions, this book advocates the achievement of better, longer, satisfying, and more productive lives for older persons. A helpful resource for physicians, professional caregivers, therapists, students, and residents in medical and nursing disciplines, who care for our burgeoning older population, and

need to know what to look for and when to consult specialists.

CRC Press

Market: Medicine

December 2022: 7 x 10: 328pp

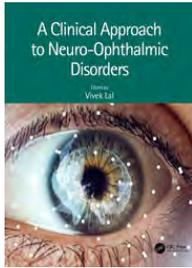
Hb: 978-1-032-38318-7: £100.00

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eBook: 978-1-003-34447-6

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A Clinical Approach to Neuro-Ophthalmic Disorders



Edited by **Vivek Lal**, PGIMER, Chandigarh, India
Neuro-ophthalmology is a merged subspecialty of neurology and ophthalmology dealing with complex multisystem diseases presenting with visual manifestations. This book helps the reader in recognizing, approaching, and managing such a patient. It covers the afferent and efferent systems, pupillary disorders, and Radiology of neuro-ophthalmic conditions. It features individual symptomatology with salient points, their management and differential diagnosis. It has case scenarios, key points, and algorithms along with self-assessment MCQ questions. Its simplified, step wise approach will be a useful resource for neurologists, ophthalmologists, physicians, pediatricians, and

optometrists.

CRC Press

Market: Medicine

October 2022: 8.25 x 11: 368pp

Hb: 978-0-367-03051-3: **£200.00**

Pb: 978-1-032-25148-6: **£79.99**

eBook: 978-0-429-02027-8

* For full contents and more information, visit: www.routledge.com/9780367030513

Acute Trauma Care in Developing Countries

A Practical Guide



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This evidence-based manual highlights the early management of acutely injured trauma victims arriving in emergency triage areas. It caters to the needs of developing nations in pre-hospital as well as in-hospital emergency trauma care and provides clear practical guidelines for the management of victims of major trauma. The book covers basic principles along with managing a crashing trauma patient, followed by effective treatment by different sub-specialty. Inputs from experienced anaesthesiologists, intensivists, orthopaedics, vascular surgeons, plastic surgeons, and radiologists, make this book a gold standard

for good practice for professionals.

CRC Press

Market: Medicine

September 2022: 7 x 10: 204pp

Hb: 978-1-032-27157-6: **£125.00**

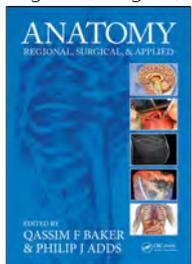
Pb: 978-1-032-27155-2: **£49.99**

eBook: 978-1-003-29161-9

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Anatomy

Regional, Surgical, and Applied



Edited by **Qassim F. Baker**, Royal College of Surgeons of England, UK and **Philip J. Addis**, St George's University of London, UK

An easy-to-read book written by students for students, edited by senior clinicians and anatomy academics, with contributions from leading anatomists and clinicians. Anatomical facts are correlated with clinical settings, especially medical emergencies, and important points are highlighted with clear learning points. The clear text is supplemented by diagrams and images, which form an essential part of this book. It covers the students' learning objectives in undergraduate anatomy curricula and helps in preparing them for practical and written exams. It forms a solid

foundation for future clinical exams based on the knowledge of anatomical facts in a clinical setting.

CRC Press

Market: Medicine

December 2022: 8.25 x 11: 294pp

Hb: 978-1-032-32116-5: **£110.00**

Pb: 978-1-032-32114-1: **£42.99**

eBook: 978-1-003-31289-5

* For full contents and more information, visit: www.routledge.com/9781032321141

Clark's Essential Guide to Clinical Ultrasound

Jan Dodgeon and Gill Harrison

Series: *Clark's Companion Essential Guides*

This easy-to-understand pocketbook in the highly respected Clark's stable of diagnostic imaging texts is an invaluable tool for students, sonographers and other ultrasound practitioners, providing practical guidance on clinical ultrasound procedures, summarising current relevant literature and professional body guidelines.

Clark's Essential Guide to Clinical Ultrasound is ideal for all users of clinical ultrasound at both undergraduate and postgraduate level. It provides a convenient distillation of the latest best practice and guidelines for sonographers, vascular technologists, ECG technologists, and other health professionals.

CRC Press

Market: Medicine

November 2022: 5.06 x 7.81: 376pp

Hb: 978-0-367-77508-7: **£74.99**

Pb: 978-0-367-77116-4: **£29.99**

eBook: 978-1-003-17170-6

* For full contents and more information, visit: www.routledge.com/9780367771164



Clinical Innovation in Rheumatology

Past, Present, and Future



Edited by **Jason Liebowitz**, Skylands Medical Group, Rockaway, USA and **Philip Seo**, Johns Hopkins University School of Medicine, Baltimore, USA

Tremendous advances have been made in the field of rheumatology. This book explains the most significant advances in research and care and speculates as to what will be the future of rheumatology over the next decades, including challenges and lessons learned from past experiences in the field. It highlights landmark research articles and scientific discoveries, discusses how big data, personalized medicine, new biomarkers for disease, and other technological revolutions will shape the

future, making it a must-have resource for physicians from all regions of the world.

CRC Press

Market: Medicine

October 2022: 8.25 x 11: 198pp

Hb: 978-1-032-07492-4: **£140.00**

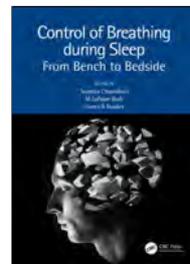
Pb: 978-1-032-07491-7: **£56.99**

eBook: 978-1-003-20716-0

* For full contents and more information, visit: www.routledge.com/9781032074917

Control of Breathing during Sleep

From Bench to Bedside



Edited by **Susmita Chowdhuri**, Wayne State University, Detroit VA Medical Center, Detroit, USA, **M. Safwan Badr**, Wayne State University School of Medicine, USA and **James A Rowley**, Wayne State University School of Medicine, USA

This book describes control of ventilation during sleep in both health and disease states. The topics are presented in a fashion that can be easily comprehended with many figures to illustrate complex concepts. Thus, a wide range of topics, starting from the site of normal respiratory rhythm generation to chemoreceptor control of sleep apnea, description of the apneic threshold, pathophysiology of upper airway closure, novel techniques to measure control of breathing, effect of cerebral

blood flow on breathing, effect of opioids on ventilation, effect of heart failure on ventilation, genetic aspects of breathing disorders, age and gender differences, and various therapies are discussed.

CRC Press

Market: Medicine

August 2022: 7 x 10: 281pp

Hb: 978-0-367-55625-9: **£190.00**

Pb: 978-0-367-43011-5: **£74.99**

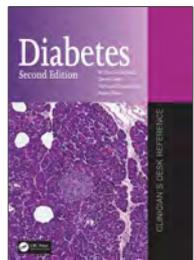
eBook: 978-1-003-00063-1

* For full contents and more information, visit: www.routledge.com/9780367430115

2nd Edition

Diabetes

Clinician's Desk Reference



M Cecilia Lansang, Richard David Leslie, St Bartholomew's Hospital and Centre for Diabetes, London, UK, **Tahseen Chowdhury** and **Keren Zhou**

Series: *Clinician's Desk Reference Series*

The book explains the underlying pathophysiology of the disease and covers in detail all its main forms and complications. Separate chapters consider the range of treatment options, together with summaries of key clinical trials. Coverage also includes epidemiology and classification, as well as diagnosis, screening, limiting risk, and other aspects of disease management and patient care. The book is illustrated throughout by explanatory diagrams, graphs, tables, and photos.

CRC Press

Market: Medicine

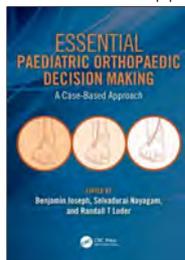
October 2022: 7 x 10: 208pp

Hb: 978-1-032-14647-8: **£190.00**Pb: 978-1-032-14645-4: **£56.99**

eBook: 978-1-003-24034-1

* For full contents and more information, visit: www.routledge.com/9781032146454**Essential Paediatric Orthopaedic Decision Making**

A Case-Based Approach



Edited by **Benjamin Joseph**, Manipal University, **Selvadurai Nayagam**, Consultant Orthopaedic Surgeon, Liverpool, UK and **Randall T Loder**, Indiana University School of Medicine, Indianapolis, USA

This collection of practical Case reports provides a concise guide to managing a wide spectrum of orthopaedic conditions in children. Strategies for determining the best management approach are provided, and are supported with clinical illustrations and guidelines. Sixty challenging clinical scenarios are presented. Each case is approached in a systematic manner with a background history, key features of physical examination and a series of questions. Trainees in pediatric orthopaedics and

those sitting their final specialty examination will find this Case-based approach helps to anchor both their understanding and retention of key concepts.

CRC Press

Market: Medicine

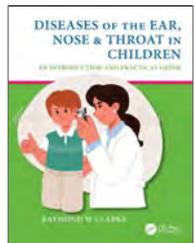
June 2022: 6.85 x 9.69: 485pp

Hb: 978-0-367-61877-3: **£175.00**Pb: 978-0-367-55362-3: **£69.99**

eBook: 978-1-003-23230-8

* For full contents and more information, visit: www.routledge.com/9780367553623**Diseases of the Ear, Nose & Throat in Children**

An Introduction and Practical Guide



Raymond W Clarke, BA, BSc, DCH, FRCS, FRCS(ORL) Consultant Paediatric Otolaryngologist, Royal Liverpool Children's Hospital, Liverpool, UK; Senior Lecturer and Associate Dean, University of Liverpool, UK

An essential introduction to the clinical examination, treatment and surgical procedures for children with diseases of the ear, nose and throat. This book encompasses the conditions most commonly encountered in the emergency setting, on the ward and in the outpatient clinic. With its highly practical approach and step-by-step guidance, this book will be invaluable for all surgical trainees studying for higher postgraduate examinations

in ENT, as well as an essential guide for otorhinolaryngologists, primary care practitioners and specialist ENT nurses in the early years of training.

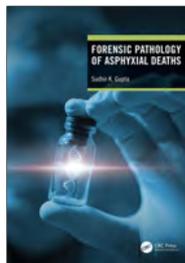
CRC Press

Market: Medicine

September 2022: 7.44 x 9.69: 162pp

Hb: 978-1-138-57942-2: **£99.99**Pb: 978-1-138-57934-7: **£39.99**

eBook: 978-0-429-01912-8

* For full contents and more information, visit: www.routledge.com/9781138579347**Forensic Pathology of Asphyxial Deaths**

Sudhir K Gupta, AIIMS, India.

This book provides an overview of Asphyxial Deaths which includes hanging, strangulation, choking, smothering, gagging, drowning, aspiration, mechanical and chemical asphyxiants, etc. Postmortem examination often leads to doubts as a clear distinction between the different type of asphyxia cannot be made easily. Forensic and physiological aspects are discussed with the help of illustrative cases. The author discusses the different aspects of asphyxia deaths and substantiates multiple case studies to establish a scientific approach that can act as a guideline to the autopsy surgeon in providing a precise opinion and clarify doubts for the judiciary involved in such criminal

justice cases.

CRC Press

Market: Medicine

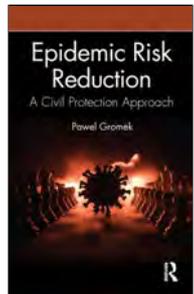
July 2022: 8.25 x 11: 219pp

Hb: 978-0-367-13410-5: **£190.00**Pb: 978-1-032-26448-6: **£74.99**

eBook: 978-0-429-02631-7

* For full contents and more information, visit: www.routledge.com/9781032264486**Epidemic Risk Reduction**

A Civil Protection Approach



Pawel Gromek

Epidemic Risk Reduction: A Civil Protection Approach focuses on disaster risk reduction (DRR) relative to epidemic outbreak and the concept of civil protection and public safety. First and foremost, the primary role of public officials and agencies—including police, military, public health, and emergency management and response professionals—must be the safety and security the citizens. The book provides practical solutions and policies that can be enacted and instituted to protect human life and health as well as property and environment in the scope of human survival, providing essential services, and providing for peoples' basic needs.

Routledge

Market: Risk Management/Pandemic

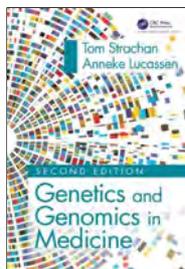
July 2022: 6.14 x 9.21: 308pp

Hb: 978-1-032-18101-1: **£120.00**Pb: 978-1-032-18100-4: **£59.99**

eBook: 978-1-003-25285-6

* For full contents and more information, visit: www.routledge.com/9781032181004

2nd Edition

Genetics and Genomics in Medicine

Tom Strachan, Newcastle University, UK and **Anneke Lucassen**, Newcastle University, UK

The second edition of this popular textbook written for undergraduate students, grad students, and medical researchers, *Genetics and Genomics in Medicine* explains the science behind the uses of genetics and genomics in medicine today.

Maintaining the features that made the first edition so popular, this second edition has been thoroughly updated in line with the latest developments in the field.

Rather than focusing narrowly on rare inherited and chromosomal disorders, it is a comprehensive, integrated account of how genetics and genomics affect the whole

spectrum of human health and disease. Specific topics are profiled in boxes throughout the text.

CRC Press

Market: Medicine

October 2022: 8.25 x 11: 552pp

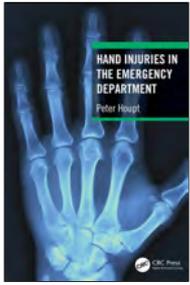
Hb: 978-0-367-49082-9: **£125.00**Pb: 978-0-367-49081-2: **£49.99**

eBook: 978-1-003-04440-6

Prev. Ed Pb: 978-0-815-34480-3

* For full contents and more information, visit: www.routledge.com/9780367490812

Hand Injuries in the Emergency Department



Peter Houpt, Isala Clinics, Zwolle, The Netherlands

This new pocketbook introduces students, junior doctors, and clinicians to the vital skills of diagnostic strategy and clinical reasoning for hand injuries. 30% of the patients in an emergency department present with hand injuries or acute non-traumatic problems of the hand. These are rarely life-threatening but can lead to high morbidity and disability due to inadequate diagnosis and treatment resulting in malpractice claims. This book is an easy-to-use ready reckoner, for physicians working in ER departments and residents or fellows exposed to hand surgery. It addresses the needs of its core readers and encourages them to refine their powers of observation during physical examination.

CRC Press

Market: Medicine

September 2022: 5.06 x 7.81: 94pp

Hb: 978-1-032-32243-8: **£62.99**

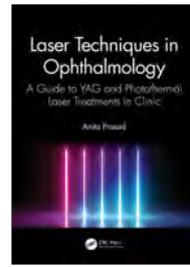
Pb: 978-1-032-32242-1: **£24.99**

eBook: 978-1-003-31354-0

* For full contents and more information, visit: www.routledge.com/9781032322421

Laser Techniques in Ophthalmology

A Guide to YAG and Photothermal Laser Treatments in Clinic



Anita Prasad, Royal Gwent Hospital, Aneurin Bevan University Health Board, UK

This is a practical guide to using lasers in the Eye clinic and includes all commonly performed Lasers for a range of ocular conditions. It uses multiple illustrations of real-life fundus photographs, FFA images, OCT images and digitally modified retinal images to simplify learning the fundamentals of laser physics and physiology, laser safety and an overview of the variety of ophthalmic lasers in current use. It standardizes Laser procedures and serves as a reference guide for Ophthalmic trainees learning the technique that can be transferred to their clinical practice. The book simplifies understanding of

Ophthalmic Lasers and answers common questions of how and why things are done.

CRC Press

Market: Medicine

July 2022: 7 x 10: 228pp

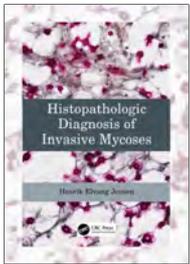
Hb: 978-0-367-70032-4: **£115.00**

Pb: 978-0-367-70031-7: **£46.99**

eBook: 978-1-003-14430-4

* For full contents and more information, visit: www.routledge.com/9780367700317

Histopathologic Diagnosis of Invasive Mycoses



Henrik Elvang Jensen, University of Copenhagen, Denmark

Written by one of the very few pathologists who has real expertise in this field, this book is a comprehensive key for the identification of fungal infections in tissues. With updated terminology and presentation, all invasive mycoses-types are covered, detailing their epidemiology, pathology, histomorphology of fungal elements, and differential diagnoses. Each of the separate fungal groups has a good combination of text and high-quality illustrations which is a critical feature for clinicians to state the mycopathological diagnoses.

CRC Press

Market: Medicine

December 2022: 8.25 x 11: 252pp

Hb: 978-1-032-30671-1: **£190.00**

Pb: 978-1-032-30670-4: **£74.99**

eBook: 978-1-003-30617-7

* For full contents and more information, visit: www.routledge.com/9781032306704

Latest Advances in Diagnosis and Treatment of Women-Associated Cancers



Edited by **Shazia Rashid**, Amity University, Noida, India., **Ankur Saxena**, Amity University, Noida, India and **Sabia Rashid**, Queen Elizabeth Hospital, UK

There has been tremendous progress in cancer diagnosis and treatment methodologies, and this book focuses on major cancers of the cervix, breast, endometrium, and the associated reproductive system affecting women. It focuses on specific diagnostic techniques and treatment strategies including computational tools, Nanomedicine, and the use of Machine Learning (ML), Artificial Intelligence (AI), Big Data, and other latest techniques, including the evolution of these treatments over the years. Oncologists, cancer scientists, and professionals will find using the content on cutting-edge interventions by experts

in their field, significantly improving earlier diagnosis and treatment options.

CRC Press

Market: Medicine

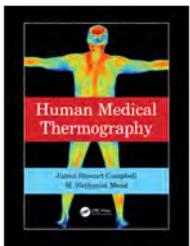
July 2022: 5.5 x 8.5: 166pp

Hb: 978-1-032-19636-7: **£44.99**

eBook: 978-1-003-26017-2

* For full contents and more information, visit: www.routledge.com/9781032196367

Human Medical Thermography



James Stewart Campbell, Albany Medical College, USA and **M. Nathaniel Mead**, UNC Gillings School of Global Public Health, USA

Want to incorporate medical infrared imaging into your practice but can't find a book that explains how to do it? Well, this book is for you! Complete, practical instructions are provided on imager choice and care as well as the physical needs of a thermography service from the imaging room layout to the computer requirements. How to acquire, interpret, and report a thermal examination is covered in detail. Fully illustrated with both normal and abnormal images, Human Medical

Thermography provides practitioners of all types with the knowledge to design and operate a scientifically-based thermography practice.

CRC Press

Market: Medicine

August 2022: 8.25 x 11: 250pp

Hb: 978-1-032-25141-7: **£250.00**

Pb: 978-1-032-25140-0: **£99.99**

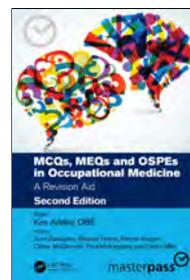
eBook: 978-1-003-28176-4

* For full contents and more information, visit: www.routledge.com/9781032251400

2nd Edition

MCQs, MEQs and OSPEs in Occupational Medicine

A Revision Aid



Edited by **Ken Adley**

Series: *MasterPass*

This second edition of the well-regarded *Multiple Choice Questions and Revision Aid in Occupational Medicine* continues as a comprehensive revision and study resource for those preparing for professional examinations in occupational health, occupational medicine and occupational health & safety.

The content has been extensively revised and updated to cover relevant and current issues. There are three sections organized by question type – MCQ, MEQ, and OSPE. Each question is accompanied by the correct answer along with a brief justification explanation.

CRC Press

Market: Medicine

July 2022: 7 x 10: 167pp

Hb: 978-1-032-27240-5: **£74.99**

Pb: 978-1-032-27239-9: **£29.99**

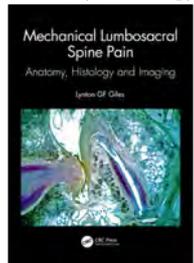
eBook: 978-1-003-29193-0

Prev. Ed Pb: 978-0-750-62394-0

* For full contents and more information, visit: www.routledge.com/9781032272399

Mechanical LumboSacral Spine Pain

Anatomy, Histology and Imaging



Lynton G.F. Giles, James Cook University, Queensland, Australia

This book addresses an extremely prevalent medical problem: low back pain. It is not a general anatomy book, but it relates specifically to the lumbo-sacral spine, encompassing anatomy, histology, histopathology, and imaging all in one volume. For students, the text incrementally introduces them to lumbo-sacral anatomy terms and scientific knowledge by using photographs of gross and histological sections of the spine, as well as schematic drawings and images, in preparation for clinical practice. It answers many questions about the pathogenesis of low back pain, helpful for clinicians, both for treatment decisions

and for counselling patients.

CRC Press

Market: Medicine

November 2022: 8.25 x 11: 174pp

Hb: 978-1-032-32644-3: £150.00

Pb: 978-1-032-32643-6: £59.99

eBook: 978-1-003-31596-4

* For full contents and more information, visit: www.routledge.com/9781032326436

Morphodynamic Imaging in Achalasia

Edited by Giovanni Fontanella

This book approaches the imaging of achalasia with new pathophysiological assumptions in mind, coming from the Chicago Classification of Manometric diagnosis. Using modern x-ray technology, the authors have developed a schematic and simple approach to detection, diagnosis, and patient stadiation and prognostic stratification, for radiologists, clinicians, and students. It serves as a useful guide to structured and comprehensive reporting of barium swallows. The book allows radiologists to comprehensively understand achalasia from anatomic, pathophysiological, therapeutic points of view and empowers readers to diagnose and define the exact achalasia subtype in each patient.

CRC Press

Market: Medicine

December 2022: 6.14 x 9.21: 140pp

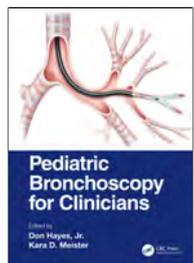
Hb: 978-1-032-33585-8: £110.00

Pb: 978-1-032-33584-1: £44.99

eBook: 978-1-003-32030-2

* For full contents and more information, visit: www.routledge.com/9781032335841

Pediatric Bronchoscopy for Clinicians



Edited by Don Hayes, Jr., University of Cincinnati College of Medicine, Cincinnati, USA and Kara D. Meister, Stanford University, Stanford, USA

This book is a quick reference and atlas for performing bronchoscopy in pediatric patients. It offers a multidisciplinary approach, incorporating the perspectives of pediatric pulmonology, otolaryngology, anesthesiology, and respiratory therapy by outlining important anatomic and physiologic considerations. It describes the basic and advanced techniques in performing flexible, rigid and special bronchoscopy maneuvers and approaches. Enhances the understanding of the critical skill of clinical evaluation and management of the pediatric airway.

It is addressed to junior and senior trainees as well as early and late career clinicians involved in pediatric bronchoscopy as an on-the-go guide.

CRC Press

Market: Medicine

September 2022: 7 x 10: 174pp

Hb: 978-0-367-61729-5: £160.00

Pb: 978-0-367-61728-8: £64.99

eBook: 978-1-003-10623-4

* For full contents and more information, visit: www.routledge.com/9780367617288

Pocket Prescriber Pulmonary Medicine

Craig Batista, Imperial College and The Royal Brompton Hospital, Clinical Research Fellow & Respiratory Specialist Registrar National Heart & Lung Institute, London, United Kingdom, Donald RJ Singer, Clinical Pharmacology and Therapeutics, Fellowship of Postgraduate Medicine, London, United Kingdom and Peter J Barnes, National Heart & Lung Institute, Imperial College, Royal Brompton Hospital, London, United Kingdom

Series: Pocket Prescriber Series

Pocket Prescriber Pulmonary Medicine is a concise, up-to-date prescribing guide containing all the 'must-have' information that clinical professionals treating patients with respiratory conditions need to know. This book provides focused information for all health professionals prescribing drugs for or to patients with a respiratory condition and is an essential guide for pulmonologists, intensive care physicians, emergency medicine doctors and general practitioners and nurse prescribers, in training and in practice.

CRC Press

Market: Medicine

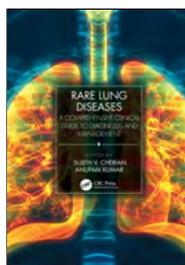
December 2022: 318pp

Pb: 978-1-498-74440-9: £19.99

eBook: 978-1-498-74441-6

* For full contents and more information, visit: www.routledge.com/9781498744409

Rare Lung Diseases



Edited by Sujith V. Cherian, University of Texas Health-McGovern Medical School, Houston, Texas, USA and Anupam Kumar, Baylor College of Medicine, Houston, Texas, USA

This book aims to be a complete guide to diagnose, manage and treat rare lung diseases encountered by practising pulmonologists and trainees. It extensively covers the "more common" of the rare lung diseases, categorising them based on developmental lung anomalies in adults, airway disorders, diffuse parenchymal lung diseases, neoplasms, rare vascular disorders and other miscellaneous conditions.

CRC Press

Market: Medicine

December 2022: 8.25 x 11: 216pp

Hb: 978-0-367-54456-0: £190.00

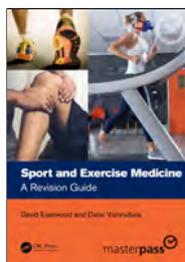
Pb: 978-0-367-54455-3: £74.99

eBook: 978-1-003-08938-4

* For full contents and more information, visit: www.routledge.com/9780367544553

Sport and Exercise Medicine

A Revision Guide



Edited by David Eastwood and Dane Vishnubala

Series: Master Pass Series

The complete guide for all candidates studying and working in the field of sport and exercise medicine, including higher specialist training and post graduate examinations. Each chapter reflects a separate aspect of the UK national sport and exercise curriculum. Key features include: a pictorial summary at the start of each chapter; a 'clinical application' section for every chapter that shows how knowledge can be applied to working clinical practice; SBA questions for each chapter, including answers.

CRC Press

Market: Medicine

December 2022: 7 x 10: 300pp

Hb: 978-1-032-01772-3: £149.99

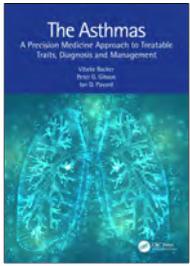
Pb: 978-1-032-01762-4: £59.99

eBook: 978-1-003-17997-9

* For full contents and more information, visit: www.routledge.com/9781032017624

The Asthmas

A Precision Medicine Approach to Treatable Traits, Diagnosis and Management



Edited by **Vibeke Backer**, Copenhagen University, Denmark, **Peter G. Gibson**, John Hunter Hospital, NSW, Australia and **Ian D. Pavord**, University of Oxford, UK

The field of asthma has expanded in the last decade with specific drugs targeting the disease mechanisms. This book is an updated treatise covering diagnoses, phenotypes and endotypes of asthma along with its management. It includes diagnostic work-up which is required prior to medical assistance, and basic immunology assessment, illustrating the types, severity, number of exacerbations due to disease activity, allergy or infections. As the treatment selection has changed from one-size-fits all to precision-based medicine, it aims to refine asthma management

with right medication usage, neither overuse nor underuse, and initiation of the new hospital administered biologic drugs.

CRC Press

Market: Pulmonary Medicine

September 2022: 7 x 10: 142pp

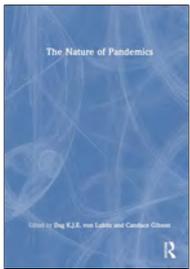
Hb: 978-0-367-35273-8: **£170.00**

Pb: 978-1-032-32323-7: **£69.99**

eBook: 978-0-429-33029-2

* For full contents and more information, visit: www.routledge.com/9781032323237

The Nature of Pandemics



Edited by **Dag K.J.E. von Lubitz**, MedSMART Inc., Ann Arbor, Michigan, USA and **Candace J. Gibson**

Holistically examines the nature of pandemics as a phenomenon, and how to mount an organized, concerted global response to a globally lethal bioevent. The book outlines the meaning of readiness, addressing military and security issues, government roadblocks to response, mutual aid agreements, ethics, global health organizations and response agencies, and the harsh realities of potential mass fatalities. The book proposes invaluable organizational recommendations for the development of readiness in mobilizing response based on the contributors' extensive expertise.

CRC Press

Market: Public Health/Infectious Diseases

November 2022: 7 x 10: 468pp

Hb: 978-1-138-04830-0: **£57.99**

Pb: 978-1-032-34060-9: **£59.99**

eBook: 978-1-315-17022-0

* For full contents and more information, visit: www.routledge.com/9781032340609

The Obscure Sacroiliac Joint

Insights into anatomy, biomechanics, etiology and the treatment of mechanical dysfunction

Edited by **Niels Hammer**

This book summarises contemporary basic science understanding of sacroiliac joint anatomy, biomechanics, and disease with related changes in the joint. It provides great insight into emerging and promising therapeutic options. Combining established concepts and recent findings on the sacroiliac joint, together with research advances made over the last 25 years, this illustrated text will appeal to pain therapists, orthopedic practitioners, spine surgeons, sacroiliac joint surgeons, physiotherapists, and general practitioners.

CRC Press

Market: Medicine

December 2022: 6.14 x 9.21: 120pp

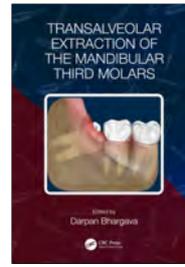
Hb: 978-1-032-39044-4: **£150.00**

Pb: 978-1-032-38706-2: **£59.99**

eBook: 978-1-003-34816-0

* For full contents and more information, visit: www.routledge.com/9781032387062

Transalveolar Extraction of the Mandibular Third Molars



Edited by **Darpan Bhargava**, TMJ Consultancy Services, Bhopal, Madhya Pradesh, India

This practical manual provides details on the clinical and radiographic evaluation, classification, principles of suturing and flaps, intricacies of the trans-alveolar surgery, newer advances in mandibular third molar surgery and complications that may be encountered during mandibular third molar exodontia. It presents vital surgical skills for the mandibular third molar exodontia in a concise and to-the-point manner. This book is a user-friendly resource for students of dentistry and maxillofacial surgery, as it brings together information from various reputable resources to one single platform for easier understanding and

application.

CRC Press

Market: Medicine

December 2022: 7 x 10: 192pp

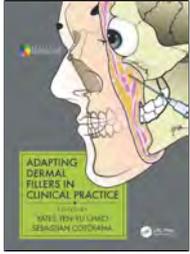
Hb: 978-1-032-34832-2: **£150.00**

Pb: 978-1-032-34831-5: **£59.99**

eBook: 978-1-003-32403-4

* For full contents and more information, visit: www.routledge.com/9781032348315

Adapting Dermal Fillers in Clinical Practice



Edited by Yates Yen-Yu Chao and Sebastian Cotofana
Series: *Series in Cosmetic and Laser Therapy*

This innovative text from an international expert explains how standard dermal filler injections and techniques need to be adapted, refined, or developed for different indications in different types of patient. It is organized by the scenarios likely to arise with different patients as a quick way to find the answer to a problem. Every level of practitioner from a student to an advanced injector will find the wealth of clinical experience here invaluable as a resource to refer to for guidance.

CRC Press

Market: Medicine

June 2022: 7 x 10: 282pp

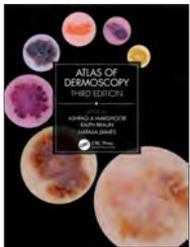
Hb: 978-0-367-20255-2: **£130.00**

eBook: 978-0-429-26052-0

* For full contents and more information, visit: www.routledge.com/9780367202552

3rd Edition

Atlas of Dermoscopy



Edited by Ashfaq A Marghoob, Ralph Braun and Natalia Jaimes

The third edition of the leading reference book in dermoscopy has undergone comprehensive revisions to all chapters, with updates and expanded content providing the reader with a more comprehensive coverage of skin conditions, ranging from skin neoplasia to hair, nails, infections and inflammatory diseases. This compilation of contemporary dermoscopy knowledge will benefit the novice in building expertise and benefit experienced practitioners also by providing nuanced insights.

Embark on a journey of learning as leading international experts

explain via text and annotated exemplar images the amazing world of subsurface cutaneous colors and structures visible through a dermatoscope!

CRC Press

Market: Medicine

September 2022: 8.25 x 11: 334pp

Hb: 978-1-138-59598-9: **£155.00**

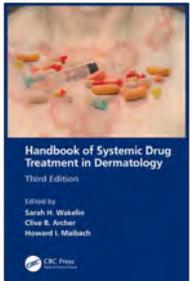
eBook: 978-0-429-48787-3

Prev. Ed Hb: 978-0-415-45895-5

* For full contents and more information, visit: www.routledge.com/9781138595989

3rd Edition

Handbook of Systemic Drug Treatment in Dermatology



Edited by Sarah H. Wakelin, St. Mary's Hospital, London, UK, Howard I. Maibach, University of California School of Medicine, Department of Dermatology, San Francisco, USA and Clive B. Archer

The Handbook of Systemic Drug Treatment in Dermatology helps prescribers and patients make rational decisions about drug treatment while considering known risks and potential unwanted effects. This third edition includes new classes of drugs as well as information on updated guidelines for prescribing and monitoring established drugs.

CRC Press

Market: Dermatology

December 2022: 7 x 10: 304pp

Hb: 978-0-367-86082-0: **£137.98**

Pb: 978-0-367-86081-3: **£68.99**

eBook: 978-1-003-01678-6

Prev. Ed Pb: 978-1-482-22284-5

* For full contents and more information, visit: www.routledge.com/9780367860813

Skin Disease and the History of Dermatology

Order out of Chaos



Scott Jackson

This text is a history of skin disease and a history of dermatology, telling the human historical experience of skin disease and how we have come to know what we know about the skin and its myriad diseases over the course of four millennia, looking at key figures in life and literature and key events such as the Black Death and the eradication of smallpox.

* This book examines how the history of skin disease fits into the larger picture of the history of each age

* Provides dermatological insight into major events and personalities from history

* Offers a unique perspective on the history of each age

CRC Press

Market: Dermatology

September 2022: 7 x 10: 398pp

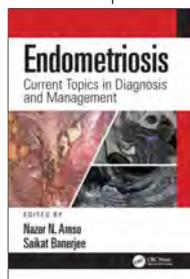
Hb: 978-1-032-22660-6: **£130.00**

eBook: 978-1-003-27362-2

* For full contents and more information, visit: www.routledge.com/9781032226606

Endometriosis

Current Topics in Diagnosis and Management



Edited by **Nazar Amso**, Spire Cardiff Hospital, Cardiff, UK and **Saikat Banerjee**, Addenbrooke's Hospital, Department of Gynaecology, Biomedical Campus, Hills Road, Cambridge, CB2 0QQ, UK

A succinct but comprehensive overview of the current approaches to diagnosis and management, both medical and surgical, of a very distressing condition, believed to affect about 10% of women of reproductive age. There is an emphasis on the increasingly important role being played by imaging for diagnosis, the assessment of management, and to aid the surgeon.

CRC Press

Market: Medicine

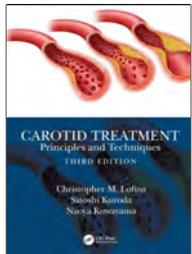
August 2022: 7 x 10: 310pp

Hb: 978-1-138-59587-3: **£150.00**

eBook: 978-0-429-48811-5

* For **full contents** and more information, visit: www.routledge.com/9781138595873

3rd Edition

Carotid Treatment: Principles and Techniques

Christopher M. Loftus, Center for Devices and Radiological Health, USA, **Satoshi Kuroda**, University of Toyama, Japan and **Naoya Kuwayama**, University of Toyama, Japan

This text presents the current state of the art in carotid treatment. Coverage includes carotid stenting, radiography, and highly illustrated surgical techniques case examples reflecting international practice. Throughout the book numerous case examples, and interesting examples of anatomical variants are illustrated and explained. An expanded section on complications further increases the value of this resource for all practitioners. Neurosurgeons, Vascular surgeons, and Neuro-Interventionalists will benefit from the third edition of

this acclaimed text.

CRC Press

Market: Medicine

December 2022: 8.25 x 11: 442pp

Hb: 978-0-367-46571-1: **£130.00**

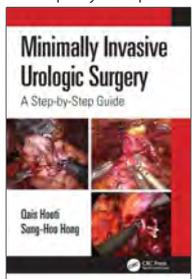
eBook: 978-1-003-04217-4

Prev. Ed Hb: 978-0-824-72832-8

* For **full contents** and more information, visit: www.routledge.com/9780367465711

Minimally Invasive Urologic Surgery

A Step-by-Step Guide



Qais Hooti and **Sung-Hoo Hong**

This text provides concise and highly practical information covering the most commonly performed urological procedures. Each procedure is presented in detail, supported by scientific justification and supplemented by operative images and diagrams. The operative steps are clearly explained with critical moments highlighted.

CRC Press

Market: Medicine

August 2022: 6.85 x 9.69: 224pp

Hb: 978-1-032-25714-3: **£150.00**

Pb: 978-1-032-25710-5: **£59.99**

eBook: 978-1-003-28466-6

* For **full contents** and more information, visit: www.routledge.com/9781032257105

Complementary and Alternative Medicinal Approaches for Enhancing Immunity



Mehwish Iqbal, Dow University of Health Sciences
Baba-urdu Road Sadar Karachi, Sindh 75300 Pakistan

This book describes the benefits of the traditional medicinal system for strengthening the human immune system. It explains how these ancient medicinal systems and treatment modalities incorporate a holistic health approach and inculcate various therapies, including natural medicine for nourishing and supporting body tissues and stimulating recovery from the diseases. It discusses strategies to facilitate the process of oxygenation, detoxification, bathing, stress management, cleansing of blood and body tissues, strengthening of the immune system, and identification of root cause of the diseases

so that better health can be achieved.

CRC Press

Market: Complementary/Alternative Medicine

August 2022: 7 x 10: 528pp

Hb: 978-1-032-19941-2: **£130.00**

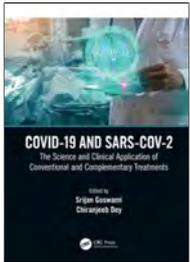
Pb: 978-1-032-19175-1: **£49.99**

eBook: 978-1-003-26152-0

* For full contents and more information, visit: www.routledge.com/9781032191751

COVID-19 and SARS-CoV-2

The Science and Clinical Application of Conventional and Complementary Treatments



Edited by **Srijan Goswami**, Indian School of Complementary Therapy & Allied Sciences, Ichapur and **Chiranjeeb Dey**

This book covers the fundamental concepts regarding SARS-CoV-2 and COVID-19 as well as common concerns and issues ensuring optimal understanding of the latest basic science and clinical content. The comparative coverage of Conventional Medical Science with Complementary and Alternative Systems of Medicine in relation to the ongoing pandemic makes this book unique compared to other books available on COVID-19. Written in textbook format and in semi-technical style, it provides basic to advanced concepts and multidimensional clinical perspectives keeping in mind the diverse needs of academicians,

researchers, students and common people.

CRC Press

Market: Complementary/Alternative Medicine

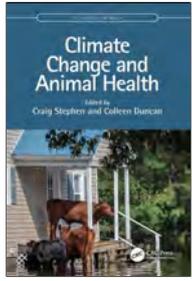
July 2022: 7 x 10: 286pp

Hb: 978-1-032-01195-0: **£150.00**

eBook: 978-1-003-17851-4

* For full contents and more information, visit: www.routledge.com/9781032011950

Climate Change and Animal Health



Edited by **Craig Stephen**, McEachran Institute, Canada and **Colleen Duncan**, Colorado State Univ.

Series: *CRC One Health One Welfare*

This benchmark publication brings together information on the current and anticipated effects of climate change on animal health. It empowers educators, managers, practitioners, and researchers by providing evidence, experience, and opinions on what we need to do to prepare for, and cope with, the largest threat ever to have faced animals on this planet. After introducing animal health in a climate change context, chapters look at specific animal health impacts arising from climate change. The book concludes with suggestions on teachable

and actionable ideas that could be used to mobilize concepts provided into education or advocacy.

CRC Press

Market: Veterinary Medicine

November 2022: 6 x 9: 352pp

Hb: 978-0-367-71202-0: **£120.00**

Pb: 978-0-367-71201-3: **£44.99**

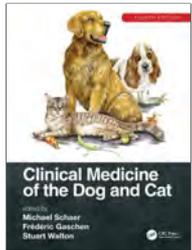
eBook: 978-1-003-14977-4

* For full contents and more information, visit: www.routledge.com/9780367712013



4th Edition

Clinical Medicine of the Dog and Cat



Edited by **Michael Schaefer**, University of Florida, College of Veterinary Medicine, USA, **Frederic Gaschen**, School of Veterinary Medicine, Louisiana State University and **Stuart Walton**

This fourth edition remains the most extensively illustrated and practical small animal veterinary medicine textbook available. It continues and expands on the revolutionary approach of the previous three editions, now including more than 1100 highly relevant clinical colour photographs, diagrams, and tables. The practical information is presented with text, tables, and algorithms, while each chapter is arranged to provide the

definition of each disorder, its clinical features, the differential diagnoses, the diagnostic methodology, and the treatment and prognosis.

CRC Press

Market: Veterinary Medicine

October 2022: 8.25 x 11: 1098pp

Hb: 978-1-032-16894-4: **£130.00**

eBook: 978-1-003-25459-1

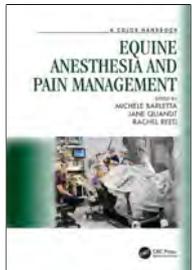
Prev. Ed Hb: 978-1-482-22605-8

* For full contents and more information, visit: www.routledge.com/9781032168944



Equine Anesthesia and Pain Management

A Color Handbook



Edited by **Michele Barletta**, Georgia Univ., **Jane Quandt**, Georgia Univ. and **Rachel Reed**, Georgia Univ.

Series: *Veterinary Color Handbook Series*

Equine Anesthesia and Pain Management: A Color Handbook brings together key information for clinicians in an easy-to-use, problem-orientated format. It disseminates a wealth of knowledge in a quick reference style, with a focus on clinical practice. Fifteen chapters cover everything from anesthetic equipment, premedication and physical restraint, to total intravenous anesthesia, inhalant anesthesia and partial intravenous anesthesia, recovery, complications, and euthanasia. Over 250 superb color photographs and diagrams bring the

material to life. This book will be invaluable to equine practitioners, veterinary technicians/nurses, and veterinary students.

CRC Press

Market: Veterinary Medicine

August 2022: 7 x 10: 284pp

Hb: 978-1-032-30962-0: **£180.00**

Pb: 978-1-498-74958-9: **£69.99**

eBook: 978-0-429-19094-0

* For full contents and more information, visit: www.routledge.com/9781498749589

Illustrated Textbook of Clinical Diagnosis in Farm Animals



Philip R Scott, Edinburgh Veterinary School

Providing veterinary students with a brand-new approach to large animal medicine, this portable textbook first describes the detailed examination of each organ system achievable on the farm, illustrated via 2000+ unique images and 1000+ video recordings. Key points, images and video recordings then provide differential diagnoses for common farm animal clinical presentations. The repository of video clips show the clinical presentation, diagnosis, recovery or pathology of all common disorders. Small and spiral-bound, the book offers a lifeline for veterinary students during their EMS (extra-mural studies) placements.

CRC Press

Market: Veterinary Medicine

August 2022: 7 x 10: 414pp

Hb: 978-1-032-19750-0: **£140.00**

Pb: 978-0-367-61270-2: **£54.99**

eBook: 978-1-003-10645-6

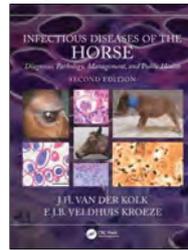
* For full contents and more information, visit: www.routledge.com/9780367612702



2nd Edition

Infectious Diseases of the Horse

Diagnosis, pathology, management, and public health



J.H. van der Kolk, Utrecht Univ. and **E.J.B. Veldhuis Kroeze**, Erasmus Univ. Med. Centre

This comprehensive yet practical book about established infectious diseases of horses is categorized according to the different pathogens. The majority of equine infectious diseases caused by microbes and parasites are covered - bacterial, viral, protozoan, fungal, ectoparasitic and helminthic. Practical Appendices contain a list of differential diagnoses based on clinical signs to support clinical decision-making, a list of zoonoses and reportable diseases, and illustrations of clinical pathology and hematology. This is a valuable resource for all veterinary practitioners, scientists, students, technicians and

nurses working with horses.

CRC Press

Market: Veterinary Medicine

December 2022: 8.25 x 11: 488pp

Hb: 978-1-032-05428-5: **£150.00**

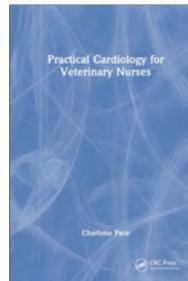
eBook: 978-1-003-19754-6

Prev. Ed Hb: 978-1-840-76165-8

* For full contents and more information, visit: www.routledge.com/9781032054285



Practical Cardiology for Veterinary Nurses



Charlotte Pace, Royal Veterinary College

This concise textbook provides a comprehensive, practical guide for veterinary nurses and technicians who wish to develop their knowledge, confidence and skills when nursing the cardiac patient. Presentation of dogs or cats with heart disease are common and it is vital that nurses understand how to look after these patients appropriately and support owners through what can often be challenging times. The book is packed with learning features including a Glossary, diagrams, illustrations and tables in full colour, concise end of chapter Key Points and Further Reading lists. This is the book that general practice veterinary nurses have been waiting for!

CRC Press

Market: Veterinary Medicine

October 2022: 6 x 9: 152pp

Hb: 978-0-367-64106-1: **£89.99**

Pb: 978-0-367-64102-3: **£34.99**

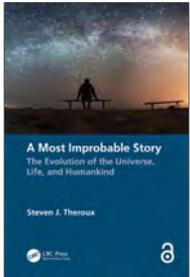
eBook: 978-1-003-12217-3

* For full contents and more information, visit: www.routledge.com/9780367641023



A Most Improbable Story

The Evolution of the Universe, Life, and Humankind



Steven J. Theroux

This book is a "big history" of the evidence regarding how we came to be. It briefly explores philosophical thought and how our past might affect our future. The text summarizes different perspectives, including the strengths and weaknesses of each. The genesis of our planet is explored, especially the circumstances that must exist for complex life to arise. This brief journey highlights the history of life, the emergence of simple lifeforms, and the evolution of complex creatures, including humans. The book concludes with a discussion of why other humanoids went extinct while our species achieved dominance. The author speculates on potentialities awaiting humankind and our planet.

CRC Press

Market: Big History

July 2022: 6.14 x 9.21: 318pp

Hb: 978-1-032-21854-0: £99.99

Pb: 978-1-032-21851-9: £42.99

eBook: 978-1-003-27029-4

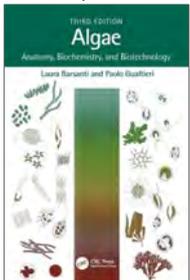
* For full contents and more information, visit: www.routledge.com/9781032218519



3rd Edition

Algae

Anatomy, Biochemistry, and Biotechnology



Laura Barsanti and Paolo Gualtieri, Istituto di Biofisica, Pisa, Italy

A single-core reference on the biology of algae, the third edition of *Algae: Anatomy, Biochemistry, and Biotechnology* examines the most important taxa and structures for freshwater, marine, and terrestrial forms of algae. Its comprehensive coverage goes from levels of organization from the subcellular, cellular and morphological standpoints, to physiology, biochemistry, culture methods, and the current issues that involve algae and human society. Written for students as well as researchers, teachers, and professionals in the field of phycology and applied phycology, this new full-color edition is both challenging and stimulating.

CRC Press

Market: Life Science

December 2022: 7 x 10: 440pp

Hb: 978-1-032-03512-3: £99.99

eBook: 978-1-003-18770-7

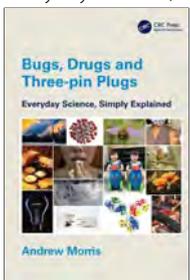
Prev. Ed Hb: 978-1-439-86732-7

* For full contents and more information, visit: www.routledge.com/9781032035123



Bugs, Drugs and Three-pin Plugs

Everyday Science, Simply Explained



Andrew Morris, University College, London

For the millions who remain curious about the world around them, this book offers a way forward. Based on live discussions with adults from all walks of life, each chapter begins with an everyday experience, like swallowing a pill or watching a bee on a flower. The main scientific ideas underlying each topic are then explored, so that understanding of a set of fundamental concepts builds up gradually throughout the book. In contrast to more traditional approaches to science learning, topics range freely across the subject areas. Plain English is used throughout and mathematical expressions are avoided. Key points are illustrated with clear diagrams and photographs.

CRC Press

Market: Popular Science

October 2022: 6.14 x 9.21: 212pp

Hb: 978-1-032-22494-7: £38.99

Pb: 978-1-032-22492-3: £14.99

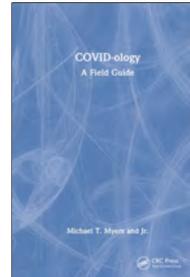
eBook: 978-1-003-27277-9

* For full contents and more information, visit: www.routledge.com/9781032224923



COVID-ology

A Field Guide



Michael T. Myers, Jr.

The COVID-19 outbreak and response has been characterized by institutional missteps, media misinformation, and economic and social upheavals. This book is intended to de-mystify and inform in a succinct and straightforward text. The lessons shared are applicable to other infectious diseases and future inevitable pandemics. Readers will learn about the origins of COVID-19, the disease it causes, tests and how they work, therapeutics and prophylactic measures such as vaccines. This text prepares readers to be better able to respond to future emerging infectious diseases and pandemics.

CRC Press

Market: Infectious Diseases

December 2022: 6 x 9: 224pp

Hb: 978-1-032-31605-5: £84.99

Pb: 978-1-032-31603-1: £29.99

eBook: 978-1-003-31052-5

* For full contents and more information, visit: www.routledge.com/9781032316031



Cytogenetics and Molecular Cytogenetics

Edited by Thomas Liehr

Series: *Medical Genomics and Proteomics*

Genomic technologies provide the means of diagnosis and management of many human diseases. Without insights from cytogenetics, correct interpretation of modern high throughput results is difficult, if not impossible. This book summarizes applications of cytogenetics and molecular cytogenetics for students, clinicians and researchers in genetics, genomics and diagnostics. The book combines the state-of-the-art knowledge and practical expertise from leading researchers and clinicians and provides a comprehensive overview of current medical applications of many of these technologies.

CRC Press

Market: Genetics

December 2022: 6.14 x 9.21: 328pp

Hb: 978-1-032-12162-8: £100.00

eBook: 978-1-003-22365-8

* For full contents and more information, visit: www.routledge.com/9781032121628



Evolution, Development and Ecology of Anemonefishes

Model Organisms for Marine Science



Edited by Vincent Laudet and Timothy Ravasi

Anemonefishes, one of the most popular and recognizable of fishes in the world, are much more than film characters, they are also emerging model organisms for studying the biology, ecology and evolution of coral reef fishes. They are a group of 28 species often employed to study patterns and processes of social organization, intra- and inter-specific competition, sex change, mutualism, dispersal and connectivity of fish populations, habitat selection, pigment pattern formation, lifespan and predator-prey interactions. This multi-authored book covers all these areas and provides an update on the research done with this model and the perspective it opens for the future.

CRC Press

Market: Natural History - Fishes

November 2022: 8.25 x 11: 296pp

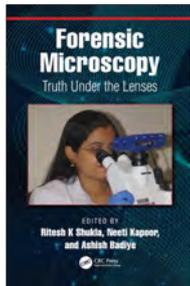
Hb: 978-0-367-64581-6: £110.00

eBook: 978-1-003-12536-5

* For full contents and more information, visit: www.routledge.com/9780367645816

Forensic Microscopy

Truth Under the Lenses



Edited by **Ritesh K Shukla**, Ahmedabad University, India, **Neeti Kapoor**, Government Institute of Forensic Science, India and **Ashish Badiye**, Government Institute of Forensic Science, India

Forensic Microscopy presents an overview and understanding of the various microscopes types and their techniques employed in the field of forensic science. The book covers both the theoretical as well as the practical aspects of various microscopes, addressing usage in analyzing various types of trace, chemical, and biological evidence.

CRC Press

Market: Forensic Science/ Chemistry

July 2022: 7 x 10: 368pp

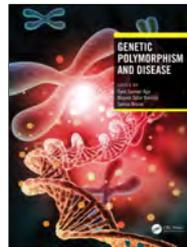
Hb: 978-0-367-63853-5: **£120.00**

Pb: 978-1-032-28328-9: **£68.99**

eBook: 978-1-003-12099-5

* For full contents and more information, visit: www.routledge.com/9781032283289

Genetic Polymorphism and Disease



Edited by **Syed Sameer Aga**, **Mujeeb Zafar Banday** and **Saniya Nissar**

This book collates the reviews on the roles played by polymorphisms in critical metabolic, signal transduction, cell cycle or DNA repair genes either directly or indirectly in the disease mechanisms. The focus is on various techniques for identifying the various Single Nucleotide Polymorphisms (SNPs). Polymorphism studies document the affect SNPs, and their expressions have upon the functionality of the enzymes, proteins.

CRC Press

Market: Genetics / Cancer

November 2022: 8.25 x 11: 560pp

Hb: 978-1-032-15316-2: **£170.00**

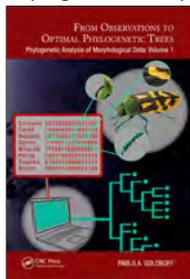
eBook: 978-1-003-24624-4

* For full contents and more information, visit: www.routledge.com/9781032153162



From Observations to Optimal Phylogenetic Trees

Phylogenetic Analysis of Morphological Data: Volume 1



Pablo A. Goloboff

Series: Species and Systematics

This book is an up-to-date revision of methods and principles of phylogenetic analysis of morphological data. It is also a general guide for using the computer program TNT in the analysis of such data. The book covers the main aspects of phylogenetic analysis, and general methods to compare classifications derived from molecules and morphology. The basic aspects of molecular analysis are covered only as needed to highlight the differences with methods and assumptions for analysis of morphological datasets.

CRC Press

Market: Evolutionary Biology

July 2022: 6.14 x 9.21: 298pp

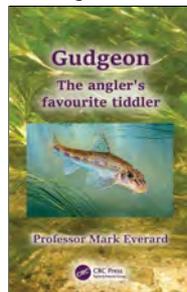
Hb: 978-1-032-11485-9: **£89.99**

eBook: 978-1-003-22008-4

* For full contents and more information, visit: www.routledge.com/9781032114859

Gudgeon

The angler's favourite tiddler



Mark Everard, UWE Bristol

This book is a celebration of the humble gudgeon, the angler's favourite 'tiddler'.

This much-loved little fish is long overdue a little book all of its own.

Scientist, author and broadcaster Dr Mark Everard tells tales about the biology of the gudgeon, gudgeon fishing, and the diverse social quirks and values of this most popular of little fishes.

CRC Press

Market: Angling

September 2022: 5.5 x 8.5: 76pp

Hb: 978-1-032-31729-8: **£24.99**

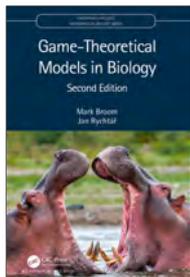
Pb: 978-1-032-31727-4: **£9.99**

eBook: 978-1-003-31101-0

* For full contents and more information, visit: www.routledge.com/9781032317274

2nd Edition

Game-Theoretical Models in Biology



Mark Broom, City, University of London, UK and **Jan Rychtář**, The University of North Carolina at Greensboro, USA

Series: Chapman & Hall/CRC Mathematical Biology Series

Covering the major topics of evolutionary game theory, this book presents both abstract and practical mathematical models of real biological situations. It discusses the static aspects of game theory in a mathematically rigorous way that is appealing to mathematicians. In addition, the authors explore many applications of game theory to biology, making the text useful to biologists as well.

In this thoroughly revised new edition, the authors have added three new chapters on the evolution of structured populations, biological signalling games, and a topical new chapter on evolutionary models of cancer along with detailed changes to the existing chapters.

Chapman and Hall/CRC

Market: Mathematical Biology

August 2022: 6.14 x 9.21: 622pp

Hb: 978-0-367-45668-9: **£74.99**

eBook: 978-1-003-02468-2

Prev. Ed Hb: 978-1-439-85321-4

* For full contents and more information, visit: www.routledge.com/9780367456689



How to Publish in Biological Sciences

A Guide for the Uninitiated



John Measey

This book is a guide specifically for Early Career Researchers on how to publish in the Biological Sciences, whether that be your first manuscript or if you're already experienced. Following on from *How to Write a PhD in Biological Sciences*, it guides you through taking your manuscript to publication in peer-reviewed journals and disseminating your research more broadly. It also explores the challenges in the academic community around Open Access and other debates, including transparency, overlay journals, paywalls, publication bias, predatory journals, and the dangers of bullying.

CRC Press

Market: Biology

July 2022: 6.14 x 9.21: 278pp

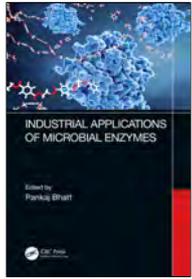
Hb: 978-1-032-11644-0: **£52.99**

Pb: 978-1-032-11641-9: **£19.99**

eBook: 978-1-003-22088-6

* For full contents and more information, visit: www.routledge.com/9781032116419

Industrial Applications of Microbial Enzymes



Edited by **Pankaj Bhatt**

Microbial enzymes are important because they can be used for a wide variety of industrial purposes. There is dispersed and scanty information available with respect to microbial enzymes and their industrial applications. In this edited book, leading scientists have covered the various aspect of microbial enzymes and their industrial applications. Using microbial enzymes can help expedite various manufacturing processes and contribute to sustainable development, which is a priority worldwide. Research gaps in the entrainment of microbial enzymes with their direct application in product development are a major focus of this volume.

CRC Press

Market: Microbiology

August 2022: 6.14 x 9.21: 350pp

Hb: 978-1-032-06513-7: **£150.00**

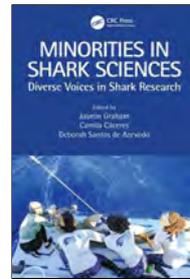
eBook: 978-1-003-20299-8

* For full contents and more information, visit: www.routledge.com/9781032065137



Minorities in Shark Sciences

Diverse Voices in Shark Research



Edited by **Jasmin Graham**, Minorities in Shark Sc., USA, **Camila Caceres**, Minorities in Shark Sc., USA and **Deborah Santos de Azevedo**, American Shark Conservancy, FL, USA

This book showcases the work done by Black, Indigenous and People of Color around the world in the fields of shark science and conservation. Edited by one Black and two Latin American female shark researchers, it strives to provide positive role models for the next generation. Strong minority voices are exactly what is needed to bring greater attention to the conservation of sharks, and this book illustrates how great things have been, are and will continue to be accomplished by people who were historically excluded from marine science. It highlights the unique perspectives these scientists bring to their field that allow

them to interact with stakeholders.

CRC Press

Market: Marine Science

November 2022: 6.14 x 9.21: 240pp

Hb: 978-1-032-19696-1: **£94.99**

Pb: 978-1-032-19694-7: **£34.99**

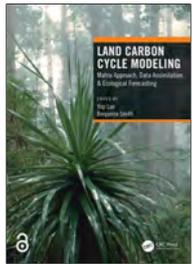
eBook: 978-1-003-26037-0

* For full contents and more information, visit: www.routledge.com/9781032196947



Land Carbon Cycle Modeling

Matrix Approach, Data Assimilation, & Ecological Forecasting



Edited by **Yiqi Luo**, Regents Professor, Center for Ecosystem Science and Society (EcoSS), Department of Biological Sciences, Northern Arizona University and **Benjamin Smith**, Lund University, Sweden

This book addresses the crucial question of how to assess, evaluate, and estimate the potential impact of the additional carbon to the global carbon cycle. The contributors describe a set of models for exploring ecological questions regarding changes in carbon cycling; provide background for developing new models; employs data assimilation techniques for model improvement; and do real- or near-time ecological forecasting for decision support. This book strives to balance theoretical

considerations, technical details, and applications of ecosystem modeling for research, assessment, and crucial decision making.

CRC Press

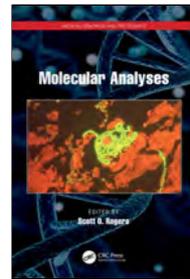
August 2022: 7 x 10: 398pp

Hb: 978-1-498-73701-2: **£150.00**

eBook: 978-0-429-15565-9

* For full contents and more information, visit: www.routledge.com/9781498737012

Molecular Analyses



Edited by **Scott Orland Rogers**, Bowling Green State University, Ohio, USA

Series: Medical Genomics and Proteomics

Methods for extraction, manipulation, and characterization of nucleic acids, peptides, and proteins have been rapidly developed. Extraction from a variety of tissues and samples have become routine and automated. Next generation sequencing (NGS) methods have been developed. This book focuses on medically-focused methods.

CRC Press

Market: Molecular Biology

July 2022: 6.14 x 9.21: 375pp

Hb: 978-0-367-90371-8: **£120.00**

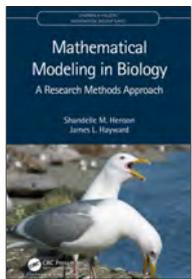
eBook: 978-1-003-24743-2

* For full contents and more information, visit: www.routledge.com/9780367903718



Mathematical Modeling in Biology

A Research Methods Approach



Shandelle M. Henson and James L. Hayward

Series: Chapman & Hall/CRC Mathematical Biology Series

This textbook is primarily written for advanced mathematics and science undergraduate students and graduate-level biology students. Although the applications center on ecology, the expertise of the authors, the methodology can be imported to any other science, including social science and economics. The aim of the book, beyond being a useful aid to teaching and learning the core modeling skills needed for mathematical biology, is to encourage students to think deeply and clearly about the meaning of mathematics in science and to learn significant research methods. Most importantly, it is hoped that students will experience some of the excitement of doing

research.

Chapman and Hall/CRC

Market: Mathematics

January 2023: 6.14 x 9.21: 296pp

Hb: 978-1-032-20821-3: **£150.00**

Pb: 978-1-032-20694-3: **£79.99**

eBook: 978-1-003-26538-2

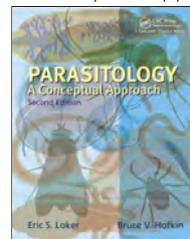
* For full contents and more information, visit: www.routledge.com/9781032206943



2nd Edition

Parasitology

A Conceptual Approach



Eric S. Loker, University of New Mexico, Albuquerque, NM and **Bruce V. Hofkin**, University of New Mexico, Albuquerque, NM

Produced amidst the rippling effects of a pandemic and as the world experiences the increasing burden of global warming, the second edition of *Parasitology* offers a timely overview of the eukaryotic parasites affecting human health and the health of animals and plants. It offers a broadly encompassing, integrative view of the phenomenon of parasitism and of the remarkable diversity of the world's parasites. This second edition, aimed chiefly at an upper-undergraduate audience, has been

thoroughly updated on all aspects of parasitism, including expanded sections on parasite biodiversity, parasite genomes and applications of new techniques like CRISPR for parasite control

CRC Press

Market: Life Science

August 2022: 8.25 x 11: 668pp

Hb: 978-0-367-22888-0: **£170.00**

Pb: 978-0-367-22887-3: **£84.99**

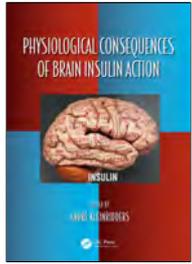
eBook: 978-0-429-27740-5

Prev. Ed Pb: 978-0-815-34473-5

* For full contents and more information, visit: www.routledge.com/9780367228873



Physiological Consequences of Brain Insulin Action



Edited by **André Kleinridders**

Series: *Oxidative Stress and Disease*

The brain is crucial for the regulation of whole-body metabolism and behavior. The pancreas-derived hormone insulin modulates brain function and affects energy metabolism as well as cognition. This is partially achieved by modulating several types of brain cell populations including those relevant to satiety and reward. Importantly, brains of Alzheimer's Disease patients exhibit a signature of brain insulin resistance with perturbed brain metabolism. This book will cover the basics of insulin signaling in the brain and will describe concepts of insulin resistance, a feature of type 2 diabetes.

CRC Press

Market: Neuroscience

September 2022: 7 x 10: 270pp

Hb: 978-0-367-52948-2: **£120.00**

eBook: 978-1-003-07992-7

* For full contents and more information, visit: www.routledge.com/9780367529482



Ruffe

The spiky little freshwater ruffian



Mark Everard, UWE Bristol

This book is dedicated to the spiky little freshwater ruffian known better as the ruffe, pope, 'tommy ruffe' and other local names.

A fascinating little fish, the ruffe is long overdue a book all of its own. Much loved by many anglers, ruffe can also be problematic when introduced beyond their native range.

Scientist, author and broadcaster Dr Mark Everard details fascinating aspects of the biology, angling and wider contributions to society of the ruffe.

CRC Press

Market: Angling

September 2022: 5.5 x 8.5: 70pp

Hb: 978-1-032-31732-8: **£24.99**

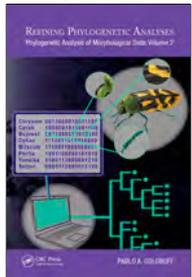
Pb: 978-1-032-31731-1: **£9.99**

eBook: 978-1-003-31103-4

* For full contents and more information, visit: www.routledge.com/9781032317311

Refining Phylogenetic Analyses

Phylogenetic Analysis of Morphological Data: Volume 2



Pablo A. Goloboff

Series: *Species and Systematics*

This volume discusses the aspects of a phylogenetic analysis that go beyond basic calculation of most parsimonious trees. Practical application of all principles discussed is illustrated by reference to TNT, a freely available software package that can perform all the steps needed in a phylogenetic analysis. With scripting, it is possible to "program" TNT to create personalized routines and automate complex calculations, taking analyses to the next level and allowing exploration of new methods and ideas.

CRC Press

Market: Evolution and Natural History

July 2022: 6.14 x 9.21: 312pp

Hb: 978-0-367-42027-7: **£89.99**

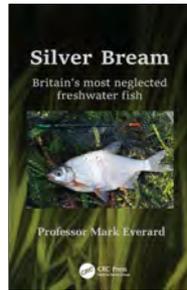
eBook: 978-0-367-82341-2

* For full contents and more information, visit: www.routledge.com/9780367420277



Silver Bream

Britain's most neglected freshwater fish



Mark Everard, UWE Bristol

This book is dedicated to the Silver Bream, a fish too long neglected by anglers, wildlife enthusiasts and science.

In fact, this is the first book ever devoted to this freshwater fish.

Scientist, author and broadcaster Dr Mark Everard introduces the biology of the silver bream, angling for this fish, and its diverse social quirks and values.

CRC Press

Market: Angling

September 2022: 5.5 x 8.5: 80pp

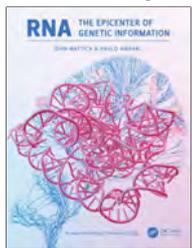
Hb: 978-1-032-31734-2: **£24.99**

Pb: 978-1-032-31733-5: **£9.99**

eBook: 978-1-003-31104-1

* For full contents and more information, visit: www.routledge.com/9781032317335

RNA, the Epicenter of Genetic Information



John Mattick and Paulo Amaral

The origin story and emergence of molecular biology is muddled. The early triumphs in bacterial genetics and the complexity of animal and plant genomes complicate an intricate history. This book documents the many advances, as well as the prejudices and founder fallacies. It highlights the premature relegation of RNA to simply an intermediate between gene and protein, the underestimation of the amount of information required to program the development of multicellular organisms, and the dawning realization that RNA is the cornerstone of cell biology, development, brain function and probably evolution itself.

CRC Press

Market: Molecular Biology

September 2022: 7 x 10: 422pp

Hb: 978-0-367-62392-0: **£80.00**

Pb: 978-0-367-56778-1: **£38.99**

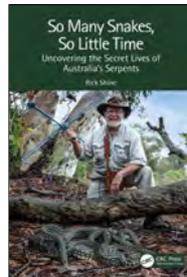
eBook: 978-1-003-10924-2

* For full contents and more information, visit: www.routledge.com/9780367567781



So Many Snakes, So Little Time

Uncovering the Secret Lives of Australia's Serpents



Rick Shine

Snakes are creatures of mystery, arousing fear in many people but fascination in a few. Recent research has transformed our understanding of the behaviour and ecology of these animals, revealed their important roles in diverse ecosystems, and discovered effective ways to conserve their populations and to promote coexistence with people. One of the leading contributors to that scientific revolution has been Prof Rick Shine. Based in Australia, his experiences will inspire a new generation of serpent scientists. Spellbinding stories highlight the challenges, frustrations, and joys of discovery, giving the reader a greater appreciation of these often-slandered slithering reptiles.

CRC Press

Market: Snakes

July 2022: 6.14 x 9.21: 292pp

Hb: 978-1-032-23461-8: **£74.99**

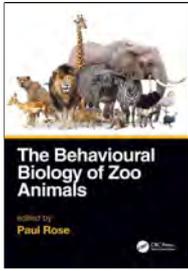
Pb: 978-1-032-23292-8: **£29.99**

eBook: 978-1-003-27771-2

* For full contents and more information, visit: www.routledge.com/9781032232928



The Behavioural Biology of Zoo Animals



Edited by **Paul Rose**, Exeter Univ.

This is the first book on captive animal behaviour and how this applies to welfare. The book enables all aspects of zoo husbandry and management (nutrition, enclosure design, handling and training, enrichment, population management) to be based on a sound knowledge of the species, its evolutionary and natural history. Chapters from expert authors cover a vast range of taxa, from primates and elephants to marine mammals and freshwater fish, to reptiles, birds and invertebrates. It explains how evidence from the wild can be implemented into captive care to support the wider aims of the zoo (conservation, education, research and recreation).

CRC Press

Market: Biology

November 2022: 7 x 10: 362pp

Hb: 978-1-032-07719-2: **£140.00**

Pb: 978-1-032-07716-1: **£54.99**

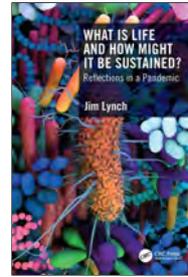
eBook: 978-1-003-20847-1

* For full contents and more information, visit: www.routledge.com/9781032077161



What Is Life and How Might It Be Sustained?

Reflections in a Pandemic



Jim Lynch, Univ. of Surrey

How did the universe and life begin and what are the threats to people and the environment in a pandemic? This book is for anybody with interest in protecting life on the planet. Studies on the origin of life and scientific contributions to safeguarding the planet are examined in light of current thinking on climate change. A major focus is the spread of microbes, put in the context of environmental assessment and management. Lynch shows how failure to control disease can lead to the collapse of any biotic population. To avoid this, the ethics of management of disease by biological control and by vaccination are discussed, at the practical level and in a moral theological context.

CRC Press

Market: Life Science

July 2022: 6.14 x 9.21: 114pp

Hb: 978-1-032-30388-8: **£32.99**

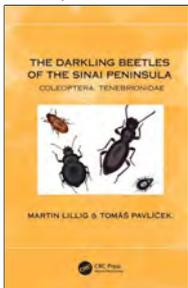
Pb: 978-1-032-27547-5: **£12.99**

eBook: 978-1-003-30484-5

* For full contents and more information, visit: www.routledge.com/9781032275475

The Darkling Beetles of the Sinai Peninsula

Coleoptera: Tenebrionidae



Martin Lillig, BUND, Germany and **Tomáš Pavlíček**, Univ. of Haifa

An expanded and updated edition of the out-of-print 2003 supplementum of 'Zoology in the Middle East', this concise guide to Darkling Beetles of the Sinai Peninsula has been sought after by researchers in taxonomy, faunistics, and biogeography. The new book includes two additional subfamilies of tenebrionid beetles (4-5 species), identification keys and more than 90 colour photographs and species distribution maps. This is an invaluable reference field guide, for both specialists and non-specialists, who will thus be able to discover the taxonomic and phylogenetic diversity of darkling beetles in the Sinai Peninsula.

CRC Press

Market: Entomology

August 2022: 6.14 x 9.21: 168pp

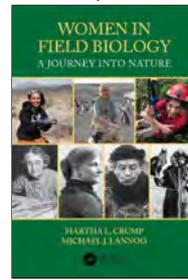
Hb: 978-1-032-18720-4: **£89.99**

eBook: 978-1-003-25590-1

* For full contents and more information, visit: www.routledge.com/9781032187204

Women in Field Biology

A Journey into Nature



Martha L. Crump and **Michael J. Lannoo**

Women are contributing to disciplines once the sole domain of men. The history of women field biologists, embedded in a history largely made and recorded by men, has never been written. Compilations of biographies have been assembled, but the narrative—their story—has never been told. In part, this is because many expressed their passion for nature as writers, artists, collectors, and educators during eras when women were excluded from the male-centric world of natural history and science. The history of women field biologists is intertwined with men's changing views of female intellect and with increasing educational opportunities available to women.

CRC Press

Market: Ecology Field Biology Natural History

August 2022: 6.14 x 9.21: 316pp

Hb: 978-1-032-31817-2: **£99.99**

Pb: 978-0-367-82035-0: **£38.99**

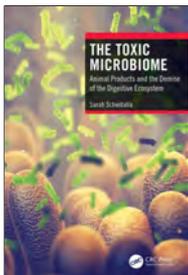
eBook: 978-1-003-31150-8

* For full contents and more information, visit: www.routledge.com/9780367820350



The Toxic Microbiome

Animal Products and the Demise of the Digestive Ecosystem



Sarah Schwitalla

Gut microbiomes are dynamic communities varying from population to population and throughout life. In western societies, a toxic metabolic shift of gut microbiomes is a driver and underestimated risk factor for the development of many non-communicable chronic pathologies. This book identifies the root cause of these deleterious microbial changes. During the last several decades, increased consumption of animal products, coincident and correlated with global climate change, has been a contributing cause of undesirable gut microbiome changes.

CRC Press

Market: Microbiology

October 2022: 6 x 9: 242pp

Hb: 978-1-032-08000-0: **£78.99**

Pb: 978-1-032-06512-0: **£38.99**

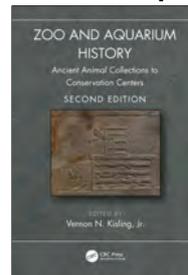
eBook: 978-1-003-21244-7

* For full contents and more information, visit: www.routledge.com/9781032065120



2nd Edition

Zoo and Aquarium History



Edited by **Vernon N. Kisling, Jr.**, Univ. Librarian and Chair at the Marston Science Library, Univ. of Florida, USA

This second edition of *Zoo and Aquarium History* takes the reader on a journey through the transition of private collections to menageries, to zoos, then zoological gardens, and more recently conservation centers and sanctuaries. An international team of authors has thoroughly updated the only comprehensive, global history of animal collections, menageries, zoos, and aquariums. This new edition pulls together new regional information along with the cultural aspects of each region and expands the Appendix to include over 1,200 zoos and aquariums.

CRC Press

Market: Zoology

July 2022: 7 x 10: 447pp

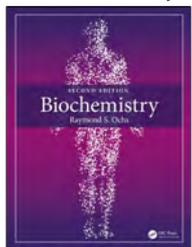
Hb: 978-1-032-25279-7: **£99.99**

eBook: 978-1-003-28248-8

Prev. Ed Hb: 978-0-849-32100-9

* For full contents and more information, visit: www.routledge.com/9781032252797

2nd Edition Biochemistry



Raymond S. Ochs, St. John's University School of Pharmacy
Biochemistry Second Edition, is a single-semester text designed for undergraduate non-biochemistry majors. Accessible, engaging, and informative, it is the perfect introduction to the subject for students who may approach chemistry with apprehension. Its unique emphasis on metabolism and its kinetic underpinnings gives the text up-to-the-minute relevance for students investigating current public health concerns such as obesity and diabetes. Biochemistry Second Edition will encourage students to explore the basics of chemistry and its influence on biological problems. It gives a clear list of objectives for each chapter and is an invaluable and user-friendly resource.

CRC Press

Market: Chemistry

August 2021: 8.25 x 11: 512pp

Hb: 978-0-367-46553-7: **£246.00**

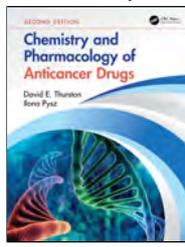
Pb: 978-0-367-46187-4: **£99.99**

eBook: 978-1-003-02964-9

* For full contents and more information, visit: www.routledge.com/9780367461874



2nd Edition Chemistry and Pharmacology of Anticancer Drugs



David E. Thurston, Kings College London and **Ilona Pysz**
This book is a comprehensive survey of all families of anticancer agents and therapeutic approaches currently in use or in advanced stages of clinical trials, including biological-based therapies. The book is unique in providing molecular structures for all anticancer agents, discussing them in terms of history of development, chemistry, mechanism of action, structure-function relationships and pharmacology. This book is an indispensable resource for cancer researchers, medicinal chemists and other biomedical scientists. The new edition of this book will have a Companion Website offering regular updates to the twelve chapters useful for both students and instructors.

CRC Press

Market: Biomedical Science

March 2021: 8.25 x 11: 618pp

Hb: 978-1-138-32358-2: **£270.00**

Pb: 978-1-439-85326-9: **£110.00**

eBook: 978-1-315-37472-7

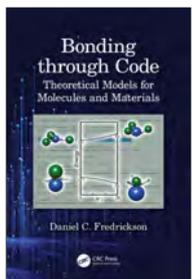
Prev. Ed Pb: 978-0-849-39219-1

* For full contents and more information, visit: www.routledge.com/9781439853269



Bonding through Code

Theoretical Models for Molecules and Materials



Daniel C. Fredrickson, University of Wisconsin-Madison, USA

This timely and unique publication is designed for graduates and researchers in physical inorganic chemistry covering bonding models and applications of symmetry concepts to chemical systems. The book discusses the quantum mechanical basis for molecular orbital concepts, the connections between molecular orbitals and localized views of bonding, group theory, and bonding models for a variety of compounds. Unlike other books, the concepts are made tangible to the readers by guiding them through the implementation in Matlab functions. No background in Matlab or computer programming is needed and the book will provide the necessary skills.

CRC Press

Market: Chemistry

September 2020: 6.14 x 9.21: 244pp

Hb: 978-1-498-76221-2: **£99.99**

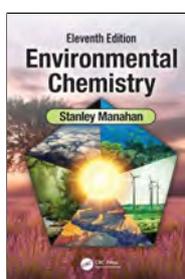
Pb: 978-0-367-54487-4: **£42.99**

eBook: 978-0-429-15401-0

* For full contents and more information, visit: www.routledge.com/9781498762212

11th Edition

Environmental Chemistry



Stanley E. Manahan, University of Missouri, Columbia, USA

With clear explanations, real-world examples and updated ancillary material, the 11th edition of Environmental Chemistry emphasizes the concepts essential to the practice of environmental science, technology and chemistry. The new edition provides a comprehensive view of key environmental issues, and significantly looks at diseases and pandemics as an environmental problem influenced by other environmental concerns like climate change.

CRC Press

Market: Chemistry

June 2022: 7 x 10: 764pp

Hb: 978-0-367-55887-1: **£74.99**

eBook: 978-1-003-09623-8

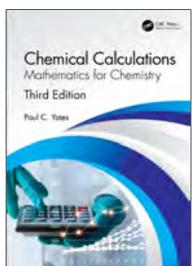
Prev. Ed Hb: 978-1-498-77693-6

* For full contents and more information, visit: www.routledge.com/9780367558871

3rd Edition

Chemical Calculations

Mathematics for Chemistry



Paul C. Yates

Uniquely organized by chemical rather than mathematical topics, this book relates each mathematical technique to the chemical concepts where it applies. The new edition features additional, revised, and updated material in every chapter, and maintains the clarity of the previous edition with appropriate organization of topics and improved cross-referencing where mathematical techniques occur more than once. The text contains additional worked examples and end-of-chapter exercises with detailed solutions—giving students the opportunity to apply previously introduced techniques to chemically related problems. An ideal course companion for chemistry courses throughout the length

of a degree.

CRC Press

Market: Chemistry

December 2022: 7 x 10: 336pp

Hb: 978-0-367-48867-3: **£59.99**

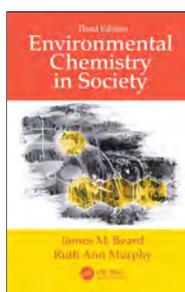
eBook: 978-1-003-04321-8

* For full contents and more information, visit: www.routledge.com/9780367488673



3rd Edition

Environmental Chemistry in Society



James M. Beard, Catawba College, Salisbury, North Carolina, USA and **Ruth Ann Murphy**

This self-contained text offers all the information necessary for readers to understand the topics surrounding environmental science and the chemistry underlying various issues. It provides a foundation in science, chemistry, and toxicology, including the laws of thermodynamics, chemical bonding, and environmental toxins. This text allows readers to delve into environmental topics, such as energy in society, air quality, global atmospheric concerns, water quality, and solid waste management. The arrangement of the book provides instructors flexibility in how they present the material, with the crucial topics being covered first. This third edition had been updated

throughout.

CRC Press

Market: Chemistry

August 2021: 6.14 x 9.21: 445pp

Hb: 978-0-367-31358-6: **£185.00**

Pb: 978-0-367-31324-1: **£74.99**

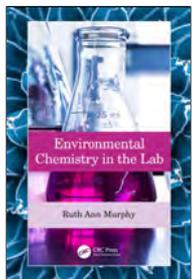
eBook: 978-0-429-31654-8

Prev. Ed Pb: 978-1-439-89267-1

* For full contents and more information, visit: www.routledge.com/9780367313241



Environmental Chemistry in the Lab



Ruth Ann Murphy

Presents a comprehensive approach to modern environmental chemistry laboratory teaching, together with a complete experimental experience. The laboratory experiments have an introduction for the students to read, a pre-lab for them to complete before coming to lab, a data sheet to complete during the lab, and a post-lab which would give them an opportunity to understand the experiment completed. Instructor resources include a list of all equipment and supplies needed per student, PowerPoint lectures to use for discussions with students before they enter the lab, an answer key to all Pre-Lab and Post-Lab questions, and a suggested rubric for grading the lab.

CRC Press

Market: Environmental Chemistry

August 2022: 6.14 x 9.21: 320pp

Hb: 978-0-367-43937-8: **£131.00**

Pb: 978-0-367-43895-1: **£52.99**

eBook: 978-1-003-00656-5

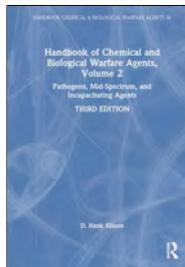
* For full contents and more information, visit: www.routledge.com/9780367438951



3rd Edition

Handbook of Chemical and Biological Warfare Agents, Volume 2

Pathogens, Mid-Spectrum, and Incapacitating Agents



D. Hank Ellison, President, Cerberus & Associates, Grosse Ile, Michigan, USA

Series: Handbook Chemical & Biological Warfare Agents 3e

This volume provides rapid access to data on a broad range of chemical and biological agents—chemical agents developed specifically for their non-lethal potential and military biological agents that could be weaponized to pose a threat to people, animals, or crops and other agricultural interests. Mid-spectrum agents covered include toxins and bioregulators. Entomological agents (arthropods) that could pose a significant threat to a country's agriculture infrastructure are also detailed.

CRC Press

Market: Hazardous Material/Terrorism

December 2022: 7 x 10: 352pp

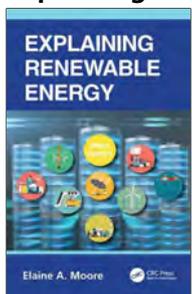
Hb: 978-1-032-13724-7: **£64.99**

eBook: 978-1-003-23056-4

* For full contents and more information, visit: www.routledge.com/9781032137247



Explaining Renewable Energy



Elaine A. Moore, The Open University, Milton Keynes, UK

This undergraduate text aimed primarily at high schoolers and lower level undergraduates focuses on explaining how various forms of renewable energy work and current ongoing research. It includes sections on non-scientific aspects that should be considered such as availability of resources. A final chapter covers methods of removing carbon dioxide from the atmosphere. Renewable energy is currently on everyone's mind in the context of climate change. This text provides students with an introduction to the science behind the various types of renewable energy enabling them to access literature in the field and options that should be considered when selecting methods.

CRC Press

Market: Chemistry

December 2022: 6.14 x 9.21: 90pp

Hb: 978-1-032-27841-4: **£68.99**

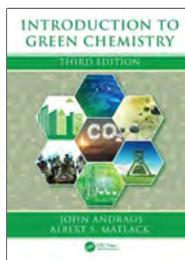
Pb: 978-1-032-27575-8: **£26.99**

eBook: 978-1-003-29433-7

* For full contents and more information, visit: www.routledge.com/9781032275758

3rd Edition

Introduction to Green Chemistry



John Andraos, CareerChem, Toronto, Ontario, Canada and Albert S. Matlack, University of Delaware, Newark, USA

Copiously illustrated with over 800 figures, this third edition provides an update from the frontiers of the field. It also features supplementary exercises at the end of each chapter relevant to the chemical examples introduced in each chapter. Particular attention is paid to a new concluding chapter on the use of green metrics as an objective tool to demonstrate proof of synthesis plan efficiency and identifying where further improvements can be made through fully worked examples relevant to the chemical industry.

CRC Press

Market: Organic Chemistry

March 2022: 8.25 x 11: 648pp

Hb: 978-1-032-19942-9: **£290.00**

Pb: 978-0-367-47048-7: **£120.00**

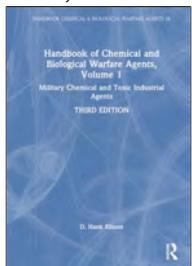
eBook: 978-1-003-03361-5

* For full contents and more information, visit: www.routledge.com/9781032199429

3rd Edition

Handbook of Chemical and Biological Warfare Agents, Volume 1

Military Chemical and Toxic Industrial Agents



D. Hank Ellison, President, Cerberus & Associates, Grosse Ile, Michigan, USA

Series: Handbook Chemical & Biological Warfare Agents 3e

This volume addresses non-lethal chemical agents, which includes nerve agents, vesicants, urticants, convulsants, blood agents, and pulmonary agents—as well as toxic industrial materials that are considered potential threat for use as improvised agents. Chapters are formatted to offer rapid access to essential information required early in a response.

CRC Press

Market: Hazardous Material/Terrorism

December 2022: 7 x 10: 544pp

Hb: 978-1-032-13723-0: **£64.99**

eBook: 978-1-003-23057-1

* For full contents and more information, visit: www.routledge.com/9781032137230



Laboratory Experiments in Trace Environmental Quantitative Analysis



Paul R. Loconto

This laboratory manual is a collection of student-tested experiments that introduce important principles and laboratory practice of Trace Environmental Quantitative Analysis. Instructors who are responsible for laboratory courses in analytical chemistry with potential application to environmental sample matrices as well as graduate programs in environmental engineering will find this lab manual of interest.

CRC Press

Market: Chemistry

April 2022: 6.14 x 9.21: 168pp

Hb: 978-1-032-19757-9: **£110.00**

Pb: 978-1-032-19562-9: **£42.99**

eBook: 978-1-003-26070-7

* For full contents and more information, visit: www.routledge.com/9781032195629

Multi-Dimensional Liquid Chromatography

Principles, Practice, and Applications

Edited by **Dwight R. Stoll** and **Peter W. Carr**, Univ. of Minnesota, Minneapolis, MN.

Series: *Chromatographic Science Series*

Establishes a sound fundamental basis for the principles of the two-dimensional liquid chromatography technique, followed by a discussion of important practical considerations. The book begins with an introduction to multi-dimensional separations and a discussion of the history and development of the technique over the past 40 years, followed by several chapters that provide a theoretical basis for development of 2D-LC methods, including foundational concepts regarding separation complementarity, under-sampling, and dynamics of liquid chromatography separations

CRC Press

Market: Analytical Chemistry

December 2022: 7 x 10: 296pp

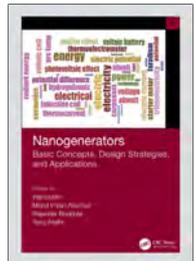
Hb: 978-0-367-54766-0: **£155.00**

eBook: 978-1-003-09055-7

* For full contents and more information, visit: www.routledge.com/9780367547660

Nanogenerators

Basic Concepts, Design Strategies, and Applications



Edited by **Inamuddin, Mohd Imran Ahmed, Rajender Boddula**, National Center for Nanoscience and Technology (NCNST), Beijing, China and **Tariq Altalhi**

Provides an in-depth review of the history, fundamental theory, design strategies, and applications of Nanogenerators. Working principles, device mechanisms, material characteristics, types of nanogenerators, as well as their different uses are fully explored. Top researchers in the field of sustainable technology from different backgrounds and fields contribute their expertise to deliver a must-have practical resource for students, academic researchers and industry professionals.

CRC Press

Market: Materials Science/Sustainable Technologies

July 2022: 7 x 10: 432pp

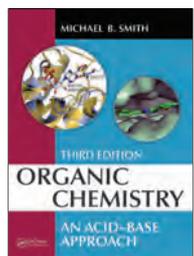
Hb: 978-1-032-03491-1: **£150.00**

eBook: 978-1-003-18761-5

* For full contents and more information, visit: www.routledge.com/9781032034911

3rd Edition

Organic Chemistry



Michael B. Smith, University of Connecticut, Storrs, USA

This latest edition constitutes significant changes within this unique introductory technique to organic chemistry. The reactions and mechanisms it covers are the most fundamental concepts in organic chemistry that are applied to industry, biological chemistry, biochemistry, molecular biology, and pharmacy. Using an illustrated conceptual approach rather than presenting sets of principles and theories to memorize, it gives students a more concrete understanding of the material.

CRC Press

Market: Chemistry

September 2022: 8.25 x 11: 726pp

Hb: 978-0-367-76870-6: **£120.00**

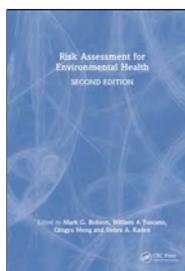
eBook: 978-1-003-17492-9

Prev. Ed Hb: 978-1-482-23823-5

* For full contents and more information, visit: www.routledge.com/9780367768706

2nd Edition

Risk Assessment for Environmental Health



Edited by **Mark G. Robson**, Department of Plant Biology, Rutgers, New Brunswick, **William A. Toscano**, UMN School of Public Health, Minneapolis, **Qingyu Meng** and **Debra A. Kaden**

Understanding risk to humans is one of the most important problems in environmental public health. Risk assessment is constantly changing with the advent of new exposure assessment tools, more sophisticated models, and a better understanding of disease processes. Risk assessment is also gaining greater acceptance in the developing world where major environmental problems exist. Developed in partnership with the Association of Schools of Public Health, this comprehensive

text offers a thorough survey of risk assessment, management, and communications as these practices apply to public health.

CRC Press

Market: Chemistry

December 2022: 7 x 10: 344pp

Hb: 978-0-367-26151-1: **£150.00**

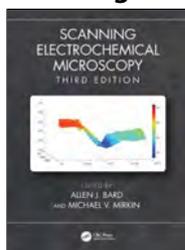
Pb: 978-0-367-26144-3: **£59.99**

eBook: 978-0-429-29172-2

* For full contents and more information, visit: www.routledge.com/9780367261511

3rd Edition

Scanning Electrochemical Microscopy



Edited by **Allen J. Bard**, University of Texas, Austin, USA and **Michael V. Mirkin**, Queens College, New York, USA

This book provides essential background and in-depth reviews of specific applications in SECM. The first four chapters contain essential experimental and theoretical background. The remaining chapters are dedicated to specific applications and provide enough detail to evaluate the applicability of the SECM for solving a specific problem. Key ideas are discussed at a level suitable for beginning graduate students, but some knowledge of electrochemistry and physical chemistry is assumed. Useful for a broad range of interdisciplinary research—from biological

systems to probing reactions at the liquid-liquid interface—this book is invaluable to those interested in learning and applying SECM.

CRC Press

Market: Electrochemistry

July 2022: 8.25 x 11: 618pp

Hb: 978-0-367-43056-6: **£170.00**

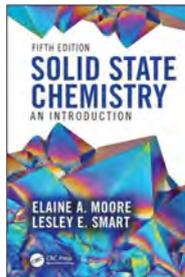
eBook: 978-1-003-00459-2

Prev. Ed Hb: 978-1-439-83112-0

* For full contents and more information, visit: www.routledge.com/9780367430566

5th Edition

Solid State Chemistry



Elaine A. Moore, The Open University, Milton Keynes, UK and **Lesley E. Smart**, The Open University, Milton Keynes, UK

Solid State Chemistry: An Introduction presents a wide range of the synthetic and physical techniques used to prepare and characterize solids. Going beyond this, this largely nonmathematical introduction to solid state chemistry includes the bonding and electronic, magnetic, electrical and optical properties of solids. Solids of particular interest – porous solids, superconductors and nanostructures are included. Practical examples of applications and modern developments are given. It offers students the opportunity to apply their knowledge in real-life situations and serve them well throughout their degree

course.

CRC Press

Market: Chemistry

August 2020: 6.14 x 9.21: 442pp

Hb: 978-0-367-13580-5: **£150.00**

Pb: 978-0-367-13572-0: **£36.99**

eBook: 978-0-429-02728-4

Prev. Ed Pb: 978-1-439-84790-9

* For full contents and more information, visit: www.routledge.com/9780367135720

Climate Change and Geodynamics in Polar Regions

Edited by **Neloy Khare**, Ministry of Earth Sciences, Government of India, New Delhi, INDIA

Series: *Maritime Climate Change*

Climate Change and Geodynamics in Polar Regions covers most of the scientific aspects of geoscientific investigation undertaken by Indian researchers in the Polar Regions: Antarctic, Arctic, and Himalayan regions.

CRC Press

Market: Meteorology / Oceanography

December 2022: 6.14 x 9.21: 288pp

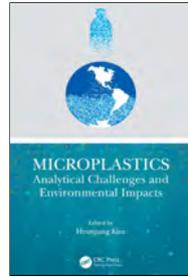
Hb: 978-1-032-25531-6: **£110.00**

eBook: 978-1-003-28441-3

* For full contents and more information, visit: www.routledge.com/9781032255316

Microplastics

Analytical Challenges and Environmental Impacts



Edited by **Hyun Jung Kim**, Department of Earth Resources and Environmental Engineering, Hanyang University, South Korea

This book introduces the growing problem of microplastics pollution in the soil and aquatic environment and its interaction with other chemical pollutants. Further, it provides a detailed review of existing analysis techniques for characterization, separation, and quantification of microplastics including their merits and demerits with possible suggestions. Additionally, the regulatory need and actions for improving the economic and quality of plastic recycling, curbing microplastic littering, and stakeholders, researchers, and recyclers challenges are reviewed comprehensively.

CRC Press

Market: Environmental Sciences

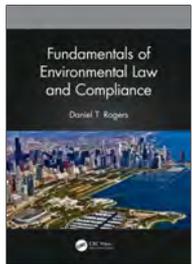
September 2022: 6.14 x 9.21: 216pp

Hb: 978-1-032-06077-4: **£89.99**

eBook: 978-1-003-20062-8

* For full contents and more information, visit: www.routledge.com/9781032060774

Fundamentals of Environmental Law and Compliance



Daniel T. Rogers

This textbook provides readers with the fundamentals and the intent of environmental regulations so that compliance can be greatly improved and streamlined. Through numerous examples and case studies it explains concepts from how environmental laws are applied and work, to why pollution prevention and sustainability are critical for the future of all life on Earth. It is organized to accommodate different needs for students with different backgrounds and career choices. It is also useful for site safety managers, research technicians, and other young professionals wanting to apply environmental regulations to their facilities and staying up to date on recently changed

regulations.

CRC Press

Market: Environmental Studies

August 2022: 7 x 10: 460pp

Hb: 978-1-032-00678-9: **£89.99**

eBook: 978-1-003-17581-0

* For full contents and more information, visit: www.routledge.com/9781032006789

Mine Waste Utilization



Ram Chandar Karra, National Institute of Technology Karnataka, India, **Gayana B C**, NITK- Karnataka, India and **Shubhananda Rao P**, NITK- Karnataka, India

This book is a comprehensive work on utilization of overburden waste, ash, tailings, and other processed waste produced by mining industry. It details various laboratory tests to identify the suitability of mine waste. It explains varied uses of different types of mine waste as in concrete pavements, bricks and to enhance fertile characteristics of waste lands. Various physico-mechanical properties of mine waste material and their optimum percentage for replacement with sand and coarse aggregate along with additives for optimum strength of concrete/bricks are discussed.

This book is aimed at researchers, professionals and graduate

students in mining, geotechnical, and civil engineering.

CRC Press

Market: Mining Engineering

July 2022: 6.14 x 9.21: 236pp

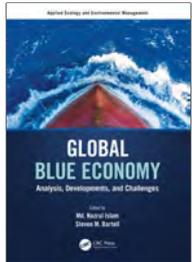
Hb: 978-1-032-21455-9: **£110.00**

eBook: 978-1-003-26849-9

* For full contents and more information, visit: www.routledge.com/9781032214559

Global Blue Economy

Analysis, Developments, and Challenges



Edited by **Md. Nazrul Islam**, Jahangirnagar University, Savar, Dhaka, Bangladesh and **Steven M. Bartell**

Series: *Applied Ecology and Environmental Management*

Blue Economy is an economic arena that depends on the benefits and values realized from the coastal and marine environment. This book explains the "Sustainable Blue Economy" as a marine-based economy that provides social and economic benefits for current and future generations. It restores, protects, and maintains the diversity, productivity, and resilience of marine ecosystems, and is based on clean technologies, renewable energy, and circular material flows. This book provides a survey of the current state of understanding, activities, and policies

related to the Blue Economy as it is being pursued in different industries and countries. A comprehensive resource for anyone interested.

CRC Press

Market: Marine Science

November 2022: 7 x 10: 488pp

Hb: 978-1-032-01272-8: **£150.00**

eBook: 978-1-003-18428-7

* For full contents and more information, visit: www.routledge.com/9781032012728

Principles of Entrepreneurship in the Industry 4.0 Era

Edited by **Rajender Kumar**, **Rahul Sindhvani**, **Tavishi Tewary** and **J. Paulo Davim**, Univ. of Aveiro

Series: *Higher Education and Sustainability*

What distinguishes this book from all other books on entrepreneurship is the comprehensive discussion of the challenges and opportunities that entrepreneurs encounter in the Industry 4.0 era. It enables readers to start dreaming big, visualizing, and working towards the realization of their dreams and encourage them to think clearly and creatively.

CRC Press

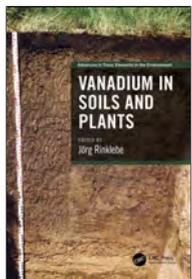
October 2022: 6.14 x 9.21: 196pp

Hb: 978-1-032-18386-2: **£74.99**

eBook: 978-1-003-25666-3

* For full contents and more information, visit: www.routledge.com/9781032183862

Vanadium in Soils and Plants



Edited by **Jörg Rinklebe**, University of Wuppertal, Germany
Series: Advances in Trace Elements in the Environment

The toxicity of vanadium at higher concentrations is of global environmental concern and a significant issue for both environmental protection and economic benefits. The relevance of anthropogenic Vanadium in the environment has increased significantly in the recent years due to an increased demand for Vanadium in high-temperature industrial activities. This book summarizes the current research on Vanadium and explain its behavior and mobilization in the environment, especially in soils, sediments, water, and plants. Through case studies from various countries it discusses critical limits set as well as risk assessment approaches and remediation approaches of Vanadium

contaminated soils.

CRC Press

Market: soil science

August 2022: 6.14 x 9.21: 296pp

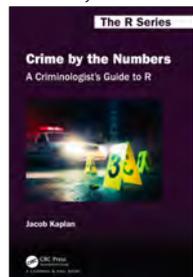
Hb: 978-1-032-00229-3: **£99.99**

eBook: 978-1-003-17327-4

* For **full contents** and more information, visit: www.routledge.com/9781032002293

A Criminologist's Guide to R

Crime by the Numbers



Jacob Kaplan

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

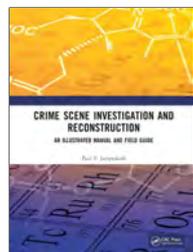
A Criminologist's Guide to R: Crime by the Numbers introduces the programming language R and covers the necessary skills to conduct quantitative research in criminology. By the end of this book, a person without any prior programming experience can take raw crime data, be able to clean it, visualize the data, present it using R Markdown, and change it to a format ready for analysis. *A Criminologist's Guide to R* focuses on skills specifically for criminology such as spatial joins, mapping, and scraping data from PDFs, however any social scientist looking for an introduction to R for data analysis will find this useful.

Chapman and Hall/CRC
September 2022: 6.14 x 9.21: 434pp
Hb: 978-1-032-24407-5: **£74.99**
eBook: 978-1-003-27921-1

* For full contents and more information, visit: www.routledge.com/9781032244075

Crime Scene Investigation and Reconstruction

An Illustrated Manual and Field Guide



Paul T. Jayaprakash

This title provides methodologies to help investigators to think broadly when seeking out evidence at a scene and, likewise, utilize all the information from a case—especially the observable physical evidence, besides that are collectable, in reconstructing events.

Over 400 collective photographs and sketches are included throughout the book to illustrate the observational methods that are described. This book will help investigators readily recognize similar manifestations in crime scenes and to apply and use such techniques appropriately in their own work.

CRC Press
Market: Forensic Science/ Forensic Medicine
October 2022: 8.25 x 11: 414pp
Hb: 978-1-032-21166-4: **£120.00**
Pb: 978-1-032-21155-8: **£64.99**
eBook: 978-1-003-26709-6

* For full contents and more information, visit: www.routledge.com/9781032211664



2nd Edition

Death, Decomposition, and Detector Dogs

From Science to Scene

Susan M. Stejskal, Recover K9 / St. Joseph County Sheriff's Department, Michigan, USA

The book is designed to help canine handlers, detectives, death investigators, crime scene personnel (including forensic laboratory personnel, technicians, and supervisors), and attorneys understand the science involved when utilizing human remains detector (HRD) canines as a locating tool. Coverage examines the basic anatomy and physiology of canine olfaction and the unique characteristics of their scenting ability that allows dogs to be trained to locate distinct odors.

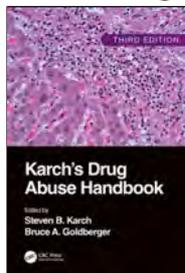
CRC Press
Market: Forensic/Canine Science
December 2022: 6.14 x 9.21: 248pp
Hb: 978-1-032-10748-6: **£120.00**
Pb: 978-1-032-10830-8: **£42.99**
eBook: 978-1-003-21725-1

* For full contents and more information, visit: www.routledge.com/9781032108308



3rd Edition

Karch's Drug Abuse Handbook



Edited by **Steven Karch** and **Bruce A. Goldberger, MD**, FFFLM, FFSSoc, Consultant Cardiac Pathologist and Toxicologist, Berkeley, California, USA

Packed with the latest information, *Karch's Drug Abuse Handbook, Third Edition* includes tables of all Scheduled Drugs, methods of Quantitative Analysis, and a glossary of forensic toxicology terms. Pictures and diagrams show the effects of drugs and the chemical make-up and breakdown of abused drugs. It includes references to the best sources in medicine, pharmacology, and the law.

CRC Press
Market: Toxicology/ Forensic Medicine
October 2022: 8.25 x 11: 832pp
Hb: 978-1-420-09499-2: **£140.00**
eBook: 978-1-315-15515-9
Prev. Ed Hb: 978-0-849-31690-6

* For full contents and more information, visit: www.routledge.com/9781420094992

Manual of Crime Scene Investigation



Edited by **Anna Barbaro**, Studio Indagini Mediche E Forensi (SIMEF), Reggio di Calabria, Italy and **Amarnath Mishra**

Manual of Crime Scene Investigation is a comprehensive collaboration of experts writing on their particular areas of expertise as relates to crime scenes, evidence, and crime scene investigation. The book outlines best practices in the field, incorporating the latest technology to collect, preserve, and enhance evidence for appropriate analysis.

CRC Press
Market: Forensic Science/Crime
October 2022: 8.25 x 11: 308pp
Hb: 978-0-367-65307-1: **£120.00**
Pb: 978-1-032-31555-3: **£69.99**
eBook: 978-1-003-12955-4

* For full contents and more information, visit: www.routledge.com/9781032315553

9th Edition

Techniques of Crime Scene Investigation



Barry A. J. Fisher, Los Angeles County Sheriff's Department (Retired), California, USA and **David Fisher**, Forensic Scientist, New York, USA

Techniques of Crime Scene Investigation, first published in 1964, continues as a seminal work in the field of forensic science, serving as a foundational text and reference title for professionals. It maintains the practical, real-world edge that the book has been known for. Four new chapters cover document evidence, crime scene reconstruction, report writing and ethics, and collection of anthropological, dental, and pathology evidence. Completely reorganized and revised, it serves as the quintessential resource, presenting the latest, up-to-date crime techniques and methodologies.

CRC Press
Market: Forensic Science
July 2022: 8 x 10: 368pp
Hb: 978-1-498-75813-0: **£69.99**
eBook: 978-0-429-27201-1
Prev. Ed Hb: 978-1-439-81005-7

* For full contents and more information, visit: www.routledge.com/9781498758130



Data-Driven Evolutionary Modeling in Materials Technology



Nirupam Chakraborti, Metallurgical and Materials Engineering, Indian Institute of Technology, Kharagpur, India.

Due to efficacy and optimization potential of genetic and evolutionary algorithms, they are used in learning and modeling especially with the advent of big data related problems. This book presents the algorithms and strategies specifically associated with pertinent issues in materials science domain. It discusses the procedures for evolutionary multi-objective optimization of objective functions created through these procedures and introduces available codes. Recent applications ranging from primary metal production to materials design are covered. It describes hybrid modeling strategy, and other common modeling and simulation strategies like molecular dynamics, cellular automata etc.

CRC Press

Market: Metals and Alloys

September 2022: 7 x 10: 318pp

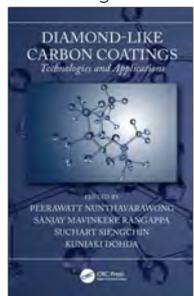
Hb: 978-1-032-06173-3: **£140.00**

eBook: 978-1-003-20104-5

* For full contents and more information, visit: www.routledge.com/9781032061733

Diamond-Like Carbon Coatings

Technologies and Applications



Edited by **Peerawatt Nunthavarawong**, **Sanjay Mavinkere Rangappa**, King Mongkut's University of Technology, North Bangkok, **Suchart Siengchin**, King Mongkut's University of Technology North Bangkok and **Kuniaki Dohda**

Diamond-like carbons (DLCs) display a number of attractive properties that make them versatile coating materials for a variety of applications. Further research into this material is required to produce hydrogen-free DLC films and to synthesize it together with other materials, to obtain better film properties. This book examines emerging manufacturing technologies for DLCs with the aim of improving their properties for use in practical applications. This work is aimed at materials science and engineering researchers, advanced students, and industry

professionals.

CRC Press

Market: Materials Science and Engineering

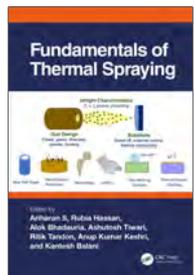
August 2022: 6.14 x 9.21: 328pp

Hb: 978-1-032-03857-5: **£120.00**

eBook: 978-1-003-18938-1

* For full contents and more information, visit: www.routledge.com/9781032038575

Fundamentals of Thermal Spraying



Edited by **Ariharan S**, Alexander Dubcek University of Trencin, Slovakia, **Rubia Hassan**, Indian Institute of Technology Kanpur, India, **Alok Bhadauria**, IIT Kanpur, India, **Ashutosh Tiwari**, Rajkiya Engineering College, Banda, India, **Ritik Tandon**, Anod Plasma Spray Limited, India, **Anup Kumar Keshri**, Indian Institute of Technology Patna, India and **Kantesh Balani**, IIT Kanpur, India

This book discusses the concepts and uses of thermal spraying including starting powder, spraying parameters, diagnostics, coating deposition, evolved microstructure and resulting properties complemented with few case studies to associate the learnings with applied concepts. The major parts of the instrumentation, spraying gun which is the fundamental aspect of the different thermal spraying conditions are also discussed as well. The solved examples, numerical problems and descriptive questions are included for self-assessment that attained the purpose of learning at the end of every chapter. This book aims at senior undergraduates and graduates in materials science and engineering.

CRC Press

Market: Coatings and Thin Films

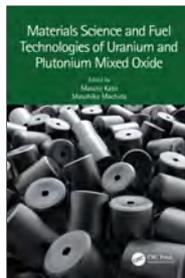
November 2022: 6 x 9: 336pp

Hb: 978-1-032-34400-3: **£120.00**

eBook: 978-1-003-32196-5

* For full contents and more information, visit: www.routledge.com/9781032344003

Materials Science and Fuel Technologies of Uranium and Plutonium Mixed Oxide



Edited by **Masato Kato**, Japan Atomic Energy Agency and **Masahiko Machida**, Japan Atomic Energy Agency

Materials Science and Fuel Technologies of Uranium and Plutonium Mixed Oxide offers a deeper understanding of MOX properties for nuclear fuels that will be useful for performance evaluation. It also reviews fuel property simulation technology and an irradiation behavior model required for performance evaluation. Based on research findings, this book investigates various physical property data in order to develop MOX fuel for sodium-cooled fast reactors.

CRC Press

Market: Engineering - Nuclear

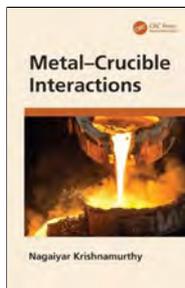
October 2022: 6.14 x 9.21: 248pp

Hb: 978-1-032-28713-3: **£120.00**

eBook: 978-1-003-29820-5

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Metal-Crucible Interactions



Nagaiyar Krishnamurthy, Bhabha Research Centre, Mumbai, Maharashtra, India

Offering readers insight into issues related to metal-crucible interactions, this book suggests solutions to a major challenge in high-temperature materials processing. It offers a holistic presentation of the current knowledge of metal-crucible interactions and explains the underlying reasons for the occurrence and extent of incompatibility between metals and containment and the method and path to their possible solution. It describes analytical experimental techniques to quantify compatibility/incompatibility and all the metals and the important alloys as well as compounds and special compositions that are prone to degradation due to compatibility issues.

CRC Press

Market: Materials Science

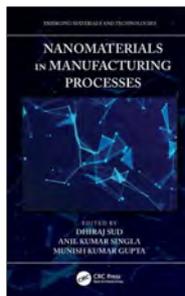
August 2022: 6.14 x 9.21: 230pp

Hb: 978-0-367-34809-0: **£120.00**

eBook: 978-0-429-34556-2

* For full contents and more information, visit: www.routledge.com/9780367348090

Nanomaterials in Manufacturing Processes



Edited by **Dhiraj Sud**, **Anil Kumar Singla** and **Munish Kumar Gupta**

Series: Emerging Materials and Technologies

In the manufacturing sector, nanomaterials offer promising outcomes for cost reduction in production, quality improvement, and minimization of environmental hazards. This book focuses on the application of nanomaterials across a wide range of manufacturing areas, including paint and coatings, petroleum refining, textile and leather industries, electronics, energy storage devices, electrochemical sensors, as well as in industrial waste treatment. This work is written for researchers and industry professionals from across a variety of engineering disciplines, including materials, manufacturing, and industrial engineering.

CRC Press

Market: Materials Science/Manufacturing Engineering

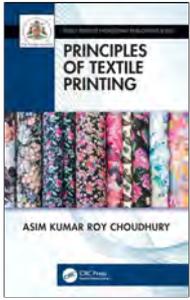
August 2022: 6.14 x 9.21: 308pp

Hb: 978-0-367-72458-0: **£110.00**

eBook: 978-1-003-15488-4

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Principles of Textile Printing



Asim Kumar Roy Choudhury, KPS Institute of Polytechnic
Series: *Textile Institute Professional Publications*

This book discusses technical aspects of textile printing, covering almost all topics related to textile printing, including the types and quality of printing important for user satisfaction. It offers historical and introductory aspects of textile printing, styles and methods of printing, and printing and ancillary machines. It describes a variety of existing technologies and a wide range of designs created by applying colours in restricted portions using printing tools. The book aims to educate those readers from large printing houses as well as from cottage and smaller boutique printers so that their products meet fastness standards.

CRC Press

Market: Materials Science

August 2022: 6.14 x 9.21: 374pp

Hb: 978-1-138-47874-9: £250.00

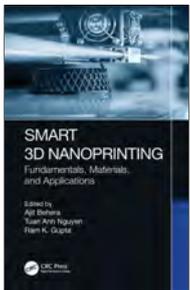
Pb: 978-1-138-47830-5: £120.00

eBook: 978-1-351-06783-6

* For full contents and more information, visit: www.routledge.com/9781138478305

Smart 3D Nanoprinting

Fundamentals, Materials, and Applications



Edited by Ajit Behera, National Institute of Technology, Rourkela, Tuan Anh Nguyen and Ram K. Gupta, Pittsburg State University

Examining smart 3D printing at the nanoscale, this book discusses various methods of fabrication, the presence of inherent defects and their annihilation, property analysis, and emerging applications across an array of industries. It serves to bridge the gap between the concept of nanotechnology and the tailorable properties of smart 3D print products. Aimed at advanced students, researchers, and industry professionals in materials, manufacturing, chemical, and mechanical engineering, this book offers readers a comprehensive overview of the properties, opportunities, and applications of smart 3D nanoprint

products across various industries.

CRC Press

Market: Materials/Manufacturing Engineering

August 2022: 6.14 x 9.21: 341pp

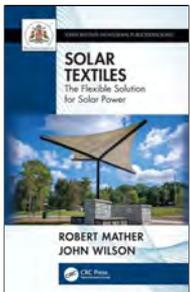
Hb: 978-1-032-03861-2: £120.00

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Solar Textiles

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Robert Mather and John Wilson

Series: *Textile Institute Professional Publications*

This book is about the incorporation and operation of solar cells on textile fabrics. The combination of textile manufacturing and solar PV cell technology opens up further avenues for both the textile and semiconductor industries. Thus, the book reflects the progressively increasing commercial interest in PV cell technology and the versatility that their integration in textiles provide. This work is aimed at textile technologists, electronic engineers, solar technologists, civil engineers, and designers in building fabrics and architecture.

CRC Press

Market: Materials Science

November 2022: 6.14 x 9.21: 124pp

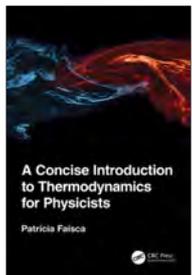
Hb: 978-0-367-70605-0: £190.00

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This introductory textbook on thermodynamics is designed for undergraduate students in physics, physics engineering, biophysics and biomedical engineering who are being exposed to the ideas and concepts of thermal physics for the first time. While this is a self-contained text on thermodynamics (i.e. focused on macroscopic physics), emphasis is placed on the microscopic underlying model in order to facilitate the understanding of thermodynamics concepts and properties, and motivate a future course on statistical physics. This book will equip the readers with an understanding of the scope and applicability of this discipline and will be able to apply it to study any physical system.

CRC Press

Market: Physics

September 2022: 6.14 x 9.21: 236pp

Hb: 978-0-367-55084-4: £107.50

Pb: 978-0-367-54641-0: £42.99

eBook: 978-1-003-09192-9

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Series: *Series in Astronomy and Astrophysics*

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CRC Press

Market: Physics

December 2022: 6.14 x 9.21: 288pp

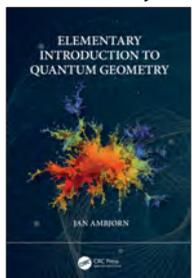
Hb: 978-0-367-69288-9: £150.00

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eBook: 978-1-003-14125-9

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Jan Ambjorn

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CRC Press

Market: Physics

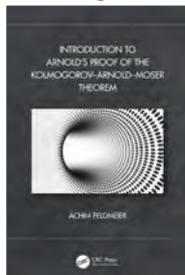
November 2022: 6.14 x 9.21: 290pp

Hb: 978-1-032-33555-1: £74.99

eBook: 978-1-003-32056-2

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Introduction to Arnold's Proof of the Kolmogorov–Arnold–Moser Theorem



Achim Feldmeier

This book provides an accessible step-by-step account of Arnold's classical proof of the Kolmogorov–Arnold–Moser (KAM) Theorem. It begins with a general background of the theorem and proves the famous Liouville–Arnold theorem for integrable systems and introduces Kneser's tori in four-dimensional phase space.

CRC Press

Market: Physics

July 2022: 6.14 x 9.21: 217pp

Hb: 978-1-032-26065-5: £140.00

eBook: 978-1-003-28780-3

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Introduction to Bioinformatics and Clinical Scientific Computing

Paul Ganney

This textbook provides an introduction to computer science theory, informatics best practice, and the standards and legislation that apply to computing in a healthcare environment.

It delivers an accessible discussion of databases (construction, interrogation and maintenance); networking (design and low-level application); programming (best practice rather than the specifics of any one language – design, maintenance, safety).

CRC Press

Market: Physics

December 2022: 6.14 x 9.21: 344pp

Hb: 978-1-032-32413-5: £74.99

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Nano-Structured Photovoltaics

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Vinod Kumar Khanna, CSIR-Central Electronics Engineering Research Institute, India

Presenting a comprehensive overview of a rapidly burgeoning field blending solar cell technology with nanotechnology, the book covers topics such as solar cell basics, nanotechnology fundamentals, nanocrystalline silicon-based solar cells, nanotextured-surface solar cells, plasmon-enhanced solar cells, optically-improved nanoengineered solar cells, dye-sensitized solar cells, 2D perovskite and 2D/3D multidimensional perovskite solar cells, carbonaceous nanomaterial-based solar cells, quantum well solar cells, nanowire solar cells and quantum dot solar cells.

CRC Press

Market: Physics

December 2022: 7 x 10: 344pp

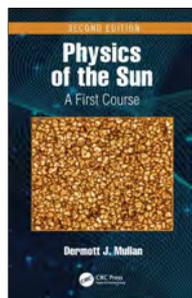
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CRC Press

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Hb: 978-1-032-21407-8: **£120.00**

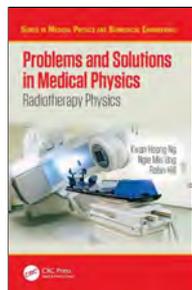
Pb: 978-1-032-20251-8: **£48.99**

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Market: Physics

September 2022: 6.14 x 9.21: 600pp

Hb: 978-1-482-23985-0: **£300.00**

Pb: 978-1-032-33576-6: **£125.00**

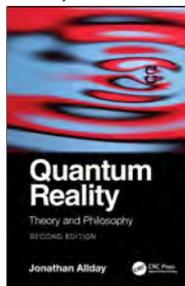
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Market: Physics

October 2022: 7 x 10: 496pp

Hb: 978-1-032-12734-7: **£120.00**

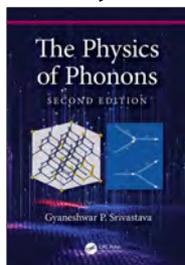
Pb: 978-1-032-12238-0: **£44.99**

eBook: 978-1-003-22599-7

Prev. Ed Pb: 978-1-584-88703-4

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CRC Press

Market: Physics

September 2022: 7 x 10: 456pp

Hb: 978-0-367-68526-3: **£170.00**

eBook: 978-1-003-14127-3

Prev. Ed Hb: 978-0-852-74153-5

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

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Chapman and Hall/CRC

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Hb: 978-1-032-19416-5: **£89.99**

eBook: 978-1-003-26124-7

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Blockchain Technology in Supply Chain Management for Society 5.0

Edited by K Mathiyazhagan, Amity University, Noida, India, Atour Taghipour and Vernika Agarwal

Series: Smart and Intelligent Computing in Engineering

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CRC Press

December 2022: 6.14 x 9.21: 208pp

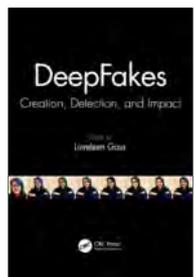
Hb: 978-1-032-00629-1: **£74.99**

eBook: 978-1-003-17743-2

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DeepFakes

Creation, Detection, and Impact



Edited by Loveleen Gaur, Amity University, Noida, India

Apart from technological introduction to deepfakes concept, the book details algorithms to detect deepfakes, techniques for identifying manipulated content and identifying face swap, generative adversarial neural networks, media forensic techniques, deep learning architectures, forensic analysis of deepfakes and so forth. This book is aimed at graduate students, researchers and professionals in data science, artificial intelligence, computer vision, and machine learning.

CRC Press

Market: Machine Learn and Pattern Recognition

September 2022: 6.14 x 9.21: 166pp

Hb: 978-1-032-13920-3: **£100.00**

eBook: 978-1-003-23149-3

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Marc Steen

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These products, services, and systems shape the digital and online worlds we inhabit, our societies and our daily lives. The book's aim is to empower these people to take responsibility; to 'upgrade' their skills for ethical reflection, inquiry, and deliberation.

Chapman and Hall/CRC

Market: Computer Science

October 2022: 6.14 x 9.21: 224pp

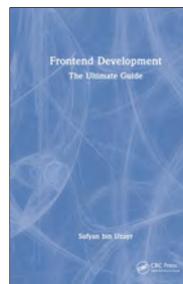
Hb: 978-0-367-54330-3: **£100.00**

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CRC Press

Market: Computer Science

December 2022: 6.14 x 9.21: 240pp

Hb: 978-1-032-31295-8: **£130.00**

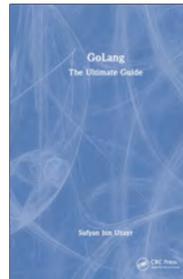
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December 2022: 6.14 x 9.21: 324pp

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Handbook of Computer Programming with Python

Edited by Dimitrios Xanthidis, Christos Manolas, Ravensbourne University London, UK, Ourania K. Xanthidou and Han-I Wang

Handbook of Computer Programming with Python provides a hands-on experience based on the underlying topics, and assist students and faculty members in developing their algorithmic thought process and developing programs for given computational problems. It can be also used by professionals who possess the necessary theoretical and computational thinking background but are presently making their transition to Python. This handbook will benefit computer science, information systems, and information technology students, or anyone who is involved in computer programming, data analytics, HCI-GUI, and related disciplines, at an entry-to-intermediate level.

Chapman and Hall/CRC

Market: Programming

December 2022: 7 x 10: 610pp

Hb: 978-0-367-68777-9: **£89.99**

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of modern technology: security and privacy concerns, malware, and threats from the Dark Web.

Chapman and Hall/CRC

Market: Computer Science

December 2022: 7 x 10: 316pp

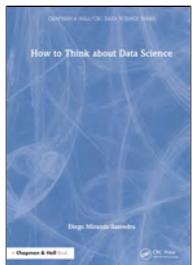
Hb: 978-0-367-69827-0: **£120.00**

Pb: 978-0-367-69725-9: **£45.99**

eBook: 978-1-003-14343-7

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Diego Miranda-Saavedra

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Chapman and Hall/CRC

Market: Computer Science

December 2022: 7 x 10: 376pp

Hb: 978-1-032-37568-7: **£120.00**

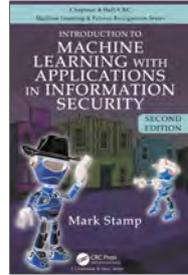
Pb: 978-1-032-36963-1: **£42.99**

eBook: 978-1-003-34085-0

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2nd Edition

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Mark Stamp, Department of Computer Science, San Jose State University

Series: Chapman & Hall/CRC Machine Learning & Pattern Recognition

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Chapman and Hall/CRC

Market: Computer Science & Engineering

October 2022: 6.14 x 9.21: 432pp

Hb: 978-1-032-20492-5: **£56.99**

eBook: 978-1-003-26487-3

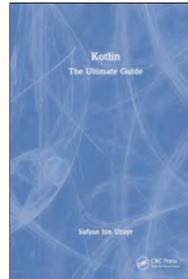
Prev. Ed Hb: 978-1-138-62678-2

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Kotlin

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CRC Press

Market: Computer Science

December 2022: 6.14 x 9.21: 360pp

Hb: 978-1-032-31170-8: **£130.00**

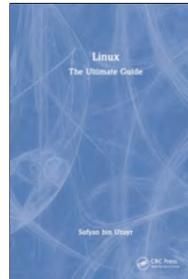
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CRC Press

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December 2022: 6.14 x 9.21: 336pp

Hb: 978-1-032-31225-5: **£130.00**

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Machine Learning (ML) is a sub field of artificial intelligence that uses soft computing and algorithms to enable computers to learn on their own and identify patterns in observed data, build models that explain the world, and predict things without having explicit pre-programmed rules and models. This book discusses various applications of ML in engineering fields and the use of ML algorithms in solving challenging engineering problems ranging from biomedical, transport, supply chain and logistics, to manufacturing and industrial. Through numerous case studies, it will assist researchers and practitioners in selecting the correct options and strategies for managing organizational tasks.

CRC Press

Market: Computer Science and Engineering

October 2022: 6.14 x 9.21: 328pp

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* For full contents and more information, visit: www.routledge.com/9780367569129

Mastering GNOME

A Beginner's Guide



Edited by Sufyan bin Uzayr

Series: Mastering Computer Science

The book is a detailed guide that will help learners get started with GNOME for Linux. It talks about the basics and then moves on to practical exercises to help readers quickly gain the required knowledge.

CRC Press

Market: Computer Science

October 2022: 6.14 x 9.21: 184pp

Hb: 978-1-032-31899-8: **£56.99**

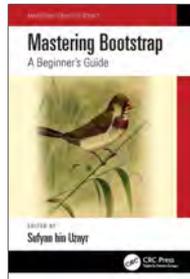
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Mastering Bootstrap

A Beginner's Guide



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Series: Mastering Computer Science

The book is a detailed guide that will help learners get started with Bootstrap programming. It talks about the basics and then moves on to practical exercises to help readers quickly gain the required knowledge. This book is meant for both CSS developers as well as learners without a formal frontend background.

CRC Press

Market: Computer Science

October 2022: 6.14 x 9.21: 360pp

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Pb: 978-1-032-31600-0: **£22.99**

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Mastering GoLang

A Beginner's Guide



Edited by Sufyan bin Uzayr

Series: Mastering Computer Science

This book is a detailed guide that will help learners get started with GLang programming. It talks about the basics and then moves on to practical exercises to help readers quickly gain the required knowledge. This book is meant for both seasoned developers as well as learners without a formal coding background.

CRC Press

Market: Computer Science

November 2022: 6.14 x 9.21: 176pp

Hb: 978-1-032-31591-1: **£56.99**

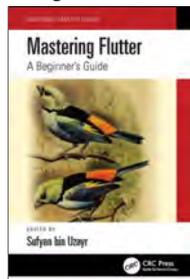
Pb: 978-1-032-31590-4: **£22.99**

eBook: 978-1-003-31045-7

* For full contents and more information, visit: www.routledge.com/9781032315904

Mastering Flutter

A Beginner's Guide



Edited by Sufyan bin Uzayr

Series: Mastering Computer Science

The book is a detailed guide that will help learners get started with Flutter and programming. It talks about the basics and then moves on to practical exercises to help readers quickly gain the required knowledge.

The book is meant for both Dart developers as well as learners without a formal Dart background.

CRC Press

Market: Computer Science

October 2022: 6.14 x 9.21: 232pp

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Mastering KDE

A Beginner's Guide



Edited by Sufyan bin Uzayr

Series: Mastering Computer Science

The book is a detailed guide that will help learners get started with KDE for Linux. It talks about the basics and then moves on to practical exercises to help readers quickly gain the required knowledge.

CRC Press

Market: Computer Science

November 2022: 6.14 x 9.21: 200pp

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Mastering Kotlin

A Beginner's Guide



Edited by **Sufyan bin Uzayr**

Series: Mastering Computer Science

This book is a detailed guide that will help learners get started with Kotlin programming. It talks about the basics and then moves on to practical exercises to help readers quickly gain the required knowledge. This book is meant for both seasoned developers as well as learners without a formal coding background.

CRC Press

Market: Computer Science

November 2022: 6.14 x 9.21: 200pp

Hb: 978-1-032-31895-0: **£56.99**

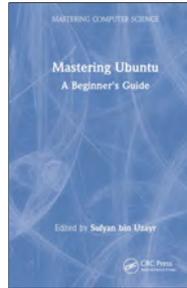
Pb: 978-1-032-31885-1: **£22.99**

eBook: 978-1-003-31190-4

* For full contents and more information, visit: www.routledge.com/9781032318851

Mastering Ubuntu

A Beginner's Guide



Edited by **Sufyan bin Uzayr**

Series: Mastering Computer Science

This book is a detailed guide that will help learners get started with Ubuntu Linux. It talks about the basics and then moves on to practical exercises to help readers quickly gain the required knowledge.

CRC Press

Market: Computer Science

November 2022: 6.14 x 9.21: 286pp

Hb: 978-1-032-31909-4: **£56.99**

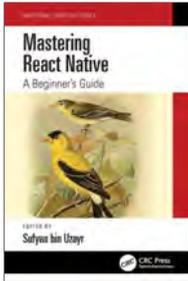
Pb: 978-1-032-31907-0: **£22.99**

eBook: 978-1-003-31199-7

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Mastering React Native

A Beginner's Guide



Edited by **Sufyan bin Uzayr**

Series: Mastering Computer Science

This book is a detailed guide that will help learners get started with React Native programming. It talks about the basics and then moves on to practical exercises to help readers quickly gain the required knowledge. This book is meant for both JavaScript developers as well as learners without a formal frontend background.

CRC Press

Market: Computer Science

November 2022: 6.14 x 9.21: 232pp

Hb: 978-1-032-31589-8: **£56.99**

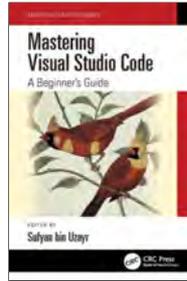
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Mastering Visual Studio Code

A Beginner's Guide



Edited by **Sufyan bin Uzayr**

Series: Mastering Computer Science

This book is a detailed guide that will help learners get started with VS Code programming. It talks about the basics and then moves on to practical exercises to help readers quickly gain the required knowledge. This book is meant for both developers as well as learners without a formal background.

CRC Press

Market: Computer Science

November 2022: 6.14 x 9.21: 272pp

Hb: 978-1-032-31906-3: **£56.99**

Pb: 978-1-032-31905-6: **£22.99**

eBook: 978-1-003-31197-3

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Mastering Rust

A Beginner's Guide



Edited by **Sufyan bin Uzayr**

Series: Mastering Computer Science

This book is a detailed guide that will help learners get started with Rust programming. It talks about the basics and then moves on to practical exercises to help readers quickly gain the required knowledge. This book is meant for seasoned developers as well as learners without a formal coding background.

CRC Press

Market: Computer Science

November 2022: 6.14 x 9.21: 320pp

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Pb: 978-1-032-31901-8: **£22.99**

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Mastering Vue.js

A Beginner's Guide



Edited by **Sufyan bin Uzayr**

Series: Mastering Computer Science

This book is a detailed guide that will help learners get started with Vue.js programming. It talks about the basics and then moves on to practical exercises to help readers quickly gain the required knowledge. This book is meant for both JavaScript developers as well as learners without a formal frontend background.

CRC Press

Market: Computer Science

November 2022: 5.06 x 7.81: 160pp

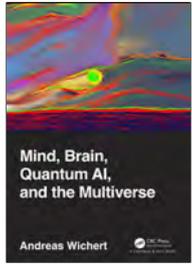
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Mind, Brain, Quantum AI, and the Multiverse



Andreas Wichert

There is a long-lasting controversy concerning our mind and consciousness. The book proposes a connection between the mind the brain and the multiverse. We indicate how we can provide an answer to the problem of the mind and consciousness by describing the nature of the physical world. Our proposed explanation includes the Everett Many-worlds theory. The book tries to avoid any non-essential metaphysical speculations. The book is an essential compilation of knowledge in philosophy, computer science, biology, and quantum physics. It is written for readers without any requirements in mathematics, physics, or computer science.

Chapman and Hall/CRC

Market: Computer Science

October 2022: 7 x 10: 198pp

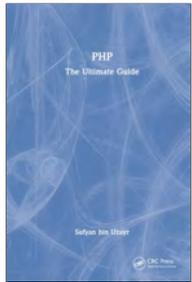
Hb: 978-1-032-14960-8: **£74.99**

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PHP

The Ultimate Guide



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The book is a detailed guide that will help developers and coders do more with PHP. It talks about the basics in brief, and then moves on to more advanced and detailed exercises to help readers quickly gain the required knowledge. The focus in this book remains on writing optimized and well-structured code in PHP.

CRC Press

Market: Computer Science

December 2022: 6.14 x 9.21: 372pp

Hb: 978-1-032-31222-4: **£130.00**

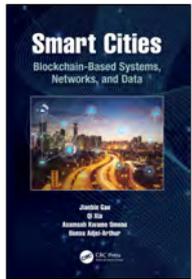
Pb: 978-1-032-31178-4: **£48.99**

eBook: 978-1-003-30866-9

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Smart Cities

Blockchain-Based Systems, Networks, and Data



Jianbin Gao, Uni Electronic Sci/Tech, China, Qi Xia, Uni Electronic Sci/Tech, China, Asamoah Kwame Omono, Uni Electronic Sci/Tech, China and Bonsu Adjei-Arthur, Uni Electronic Sci/Tech, China

Smart Cities: Blockchain-Based Systems, Networks, and Data examines the various components that make up a smart city. It focuses on infrastructure, processes, and services, and outlines approaches for services such as health, transport, energy, and more. With an underlying emphasis on blockchain networks, the authors examine ways to provide the management of resources and activities by creating a more secure and trustless operating systems where resources are more effectively allocated and managed. This book is a practical and detailed

demonstration for researchers and industry professionals who would use blockchain technology for effective city management.

CRC Press

October 2022: 6.14 x 9.21: 232pp

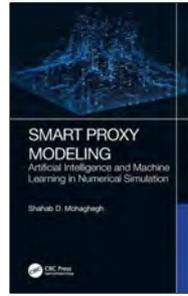
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eBook: 978-1-003-28941-8

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Smart Proxy Modeling

Artificial Intelligence and Machine Learning in Numerical Simulation



Shahab D. Mohaghegh

Numerical simulation models are used to model physical phenomena to learn how the phenomena work, identify problems, and optimize behavior. Deployment can take tens of hours even when high-performance computing is used. Smart proxy models provide an opportunity to replicate numerical simulations with very high accuracy and can be run on a laptop within a few minutes. This book focuses on smart proxy modeling and teaches readers to develop smart proxy models using artificial intelligence and machine learning. This work will be of interest to petroleum, chemical, environmental, and mechanical engineers, as well as statisticians and others working with applications of data-driven analytics.

CRC Press

October 2022: 6.14 x 9.21: 204pp

Hb: 978-1-032-15114-4: **£89.99**

eBook: 978-1-003-24258-1

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Software Design Patterns

The Ultimate Guide



Sufyan bin Uzayr

The book is a detailed guide that will help developers and coders do more with Software Design Patterns. It talks about the basics in brief, and then moves on to more advanced and detailed exercises to help readers quickly gain the required knowledge.

CRC Press

Market: Computer Science

December 2022: 6.14 x 9.21: 408pp

Hb: 978-1-032-31177-7: **£130.00**

Pb: 978-1-032-31176-0: **£48.99**

eBook: 978-1-003-30846-1

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Statistics and Data Visualisation with Python



Jesus Rogel-Salazar, Imperial College London, UK

Series: Chapman & Hall/CRC The Python Series

Statistics and Data Visualisation with Python aims to build statistical knowledge from the ground up by enabling the reader to understand the ideas behind inferential statistics, and begin to formulate hypotheses that form the foundations for the applications and algorithms in statistical analysis, business analytics, machine learning and applied machine learning. This book is intended to serve as a bridge in statistics for graduates and business practitioners interested in using their skills in the area of statistical science, and data science and analytics, acting as a refresher for readers that have taken some courses in

statistics, but no not necessarily use it in their daily work.

Chapman and Hall/CRC

Market: Computer Science

December 2022: 552pp

Hb: 978-0-367-74936-1: **£120.00**

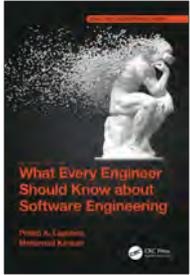
Pb: 978-0-367-74451-9: **£44.99**

eBook: 978-1-003-16035-9

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2nd Edition

What Every Engineer Should Know about Software Engineering



Phillip A. Laplante, The Pennsylvania State University, Malvern, USA and **Mohamad Kassab**

Series: What Every Engineer Should Know

This book offers a practical approach to understanding, designing, and building sound software based on solid principles. Using a unique Q&A format, it addresses the issues that engineers need to understand in order to successfully work with software engineers, develop specifications for quality software, and learn the basics of the most common programming languages, development approaches, and paradigms. The new edition is thoroughly updated to improve pedagogical flow and emphasize new software engineering processes, practices, and

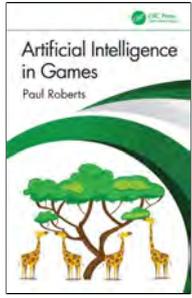
tools that have emerged in every software engineering area. It is aimed at a wide range of engineers across disciplines who work with software.

CRC Press

Market: Software Engineering
 November 2022: 6.14 x 9.21: 392pp
 Hb: 978-1-032-10318-1: **£110.00**
 Pb: 978-1-032-11153-7: **£42.99**
 eBook: 978-1-003-21864-7
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Artificial Intelligence in Games



Paul Roberts

This book covers all the necessary topics that a professional game AI programmer needs to know, from math and steering behaviours to terrain analysis, pathfinding, decision making, and more. Written to be easily accessible, each topic is accompanied by an example game, where the reader can add their own code to see the effects their changes have. This book will be suitable for students and aspiring games programmers looking to gain a grounding in game AI techniques.

CRC Press

Market: Computer Science

July 2022: 6.14 x 9.21: 310pp

Hb: 978-1-032-30595-0: **£120.00**

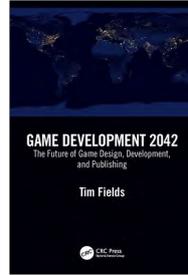
Pb: 978-1-032-03322-8: **£49.99**

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Game Development 2042

The Future of Game Design, Development, and Publishing



Tim Fields

This book explores the future of game design, development, and publishing, extrapolating the next two decades through the lens of the industry's evolution over the last ten years and the technical advances in recent adjacent markets. The book is for game makers, game publishers, investors in the gaming and animation market, and those who are interested in contemplating the future of digital entertainment.

CRC Press

Market: Game Design

October 2022: 6.14 x 9.21: 330pp

Hb: 978-1-032-27209-2: **£120.00**

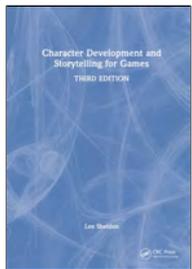
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eBook: 978-1-003-29180-0

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3rd Edition

Character Development and Storytelling for Games



Lee Sheldon, Worcester Polytechnic

Written by a professional game writer who also teaches his craft, Lee Sheldon combines his experience and expertise in this updated edition of *Character Development and Storytelling for Games*. New examples, new game types, and new challenges throughout the text highlight the fundamental importance of characters and storytelling in every type of game. Sheldon emphasizes the importance of creative instinct and listening to the inner voice that guides successful game designers and writers. Join him on his quest to instruct, inform, and maybe even inspire your next great game.

CRC Press

Market: Games

November 2022: 7 x 10: 418pp

Hb: 978-0-367-24899-4: **£120.00**

Pb: 978-0-367-24898-7: **£44.99**

eBook: 978-0-429-28499-1

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Game Design Deep Dive

Free-to-Play



Joshua Bycer

Game Design Deep Dive: F2P continues the series' focus on examining genres with a look at the history and methodology behind Free-to-Play and mobile games. The genre is one of the most lucrative and controversial in the industry. Josh Bycer lays out not only the potential and pitfalls of this design but also explores the ethics behind good and bad monetization.

CRC Press

Market: Gaming

August 2022: 6 x 9: 204pp

Hb: 978-1-032-20762-9: **£94.99**

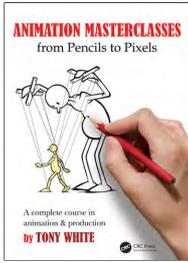
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Animation Masterclasses: From Pencils to Pixels

A Complete Course in Animation & Production



Tony White

Award-winning animator Tony White brings you the ultimate book for digital animation. Here you will find the classic knowledge of many legendary techniques revealed, paired with information relevant to today's capable, state-of-the-art technologies.

CRC Press

Market: Animation

November 2022: 7 x 10: 848pp

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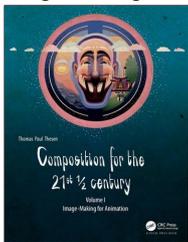
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eBook: 978-1-003-32428-7

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Composition for the 21st ½ century, Vol 1

Image-making for Animation



Thomas Paul Thesen

This book is about composition and its application in animation, illustration, games and film. It covers all various aspects of design and explains in detail the use of the specific aspect and provides examples of its impact. Focus is on the ability of each aspect to tell a story and how it affects story. Additionally case studies are included that explain the successful use of those aspects in film and animation. The book is geared to students and professionals, however tries to be as simple as possible in the presentation of each aspect, but also complex in its case studies. The book's goal is to see composition as a technical part of image and film

and as an artistic tool.

CRC Press

Market: Games & Animation

June 2022: 482pp

Hb: 978-1-138-74093-8: **£120.00**

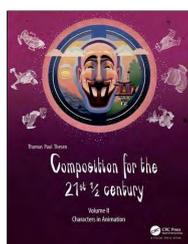
Pb: 978-1-138-74089-1: **£52.99**

eBook: 978-1-315-18310-7

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Composition for the 21st ½ century, Vol 2

Characters in Animation



Thomas Paul Thesen

This book is about composition and its application in animation, illustration, games and film. It covers all various aspects of design and explains in detail the use of the specific aspect and provides examples of its impact. Focus is on the ability of each aspect to tell a story and how it affects story. Additionally case studies are included that explain the successful use of those aspects in film and animation. The book is geared to students and professionals, however tries to be as simple as possible in the presentation of each aspect, but also complex in its case studies. The book's goal is to see composition as a technical part of image and film

and as an artistic tool.

CRC Press

Market: Games & Animation

June 2022: 362pp

Hb: 978-1-138-74094-5: **£115.00**

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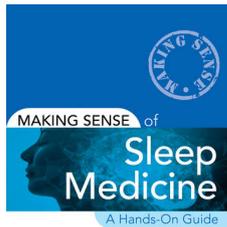
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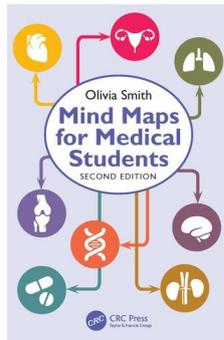
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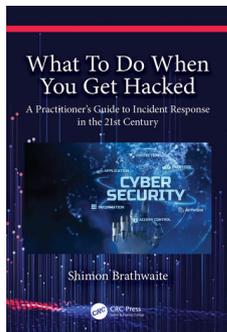


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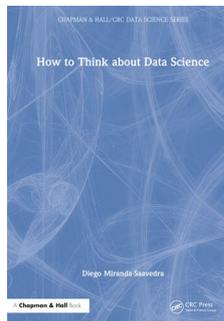
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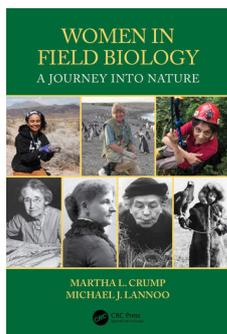
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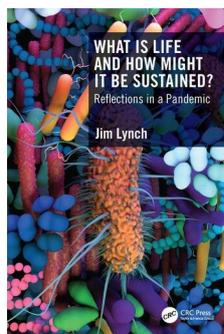
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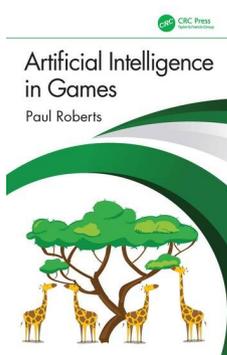
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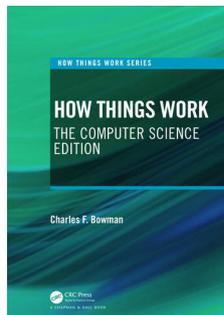
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