

Routledge - CRC Press

Science & Technology Catalogue

January - June 2025

New and Forthcoming Titles

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



Welcome

Welcome to the January to June 2025 Science and Technology Catalogue.

Subjects include Chemistry, Computer Science, Mathematics, Physics, Software Networking & Security and Statistics.

We welcome your feedback on our publishing programme, so please do not hesitate to get in touch – whether you want to read, write, review, adapt or buy, we want to hear from you, so please visit our website below or please contact your local sales representative for more information.

www.routledge.com

*Prices are correct at time of going to press and may be subject to change without notice.
Some titles within this catalogue may not be available in your region.*

eBooks

We have over 50,000 eBooks available across the Humanities, Social Sciences, Behavioural Sciences, Built Environment, STM and Law, from leading Imprints, including Routledge, Focal Press and Psychology Press. These eBooks are available for both individual and institutional purchase.

INDIVIDUALS

Our eBooks are available from Amazon, Apple iBookstore, Google eBooks, Ebooks.com, Kobo, Barnes & Noble, Waterstones, Mobipocket, VitalSource, and CourseSmart.

LIBRARIES AND INSTITUTIONS

Subscribe to or purchase a wide range of eBook packages or pick and mix your own from our complete collection (a minimum number of titles applies). FREE TRIALS are available. For more information, please visit www.tandfebooks.com or contact your local sales team.

eUpdates

Register your email at www.tandf.co.uk/eupdates to receive information on books, journals and other news within your area of interest.

an **informa** business

Prices, publication dates and content are correct at time of going to press, but may be subject to change without notice.

Partnership Opportunities at Routledge

At Routledge we always look for innovative ways to support and collaborate with our readers and the organizations they represent.

If you or your organization would like to discuss partnership opportunities, from reciprocal marketing activities to commercial enterprises, please do get in touch on partnerships@routledge.com.

Considering Books for Course Use?



This symbol shows books that are available as complimentary exam copies for lecturers or faculty considering them for course adoption. To obtain your copy visit the URL listed beneath the title in the catalog and select your choice of print or electronic copy.

Visit www.routledge.com or in the US you can call 1-800-634-7064.



This symbol shows books that are available as electronic inspection copies only.

For a complete list, visit: www.routledge.com/representatives.

Trade Customers' Representatives, Agents and Distribution

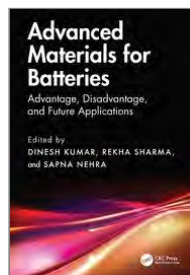
For a complete list, visit:
www.routledge.com/representatives.

Contents

Chemistry	2
Computer Science	8
Mathematics	29
Physics	39
Software Networking & Security	47
Statistics	65
Index	71

Advanced Materials for Batteries

Advantage, Disadvantage, and Future Applications



Edited by **Dinesh Kumar** Central University of Gujarat, School of Chemical Sciences, **Rekha Sharma** Dept. of Chemistry, Banasthali Vidyapith, **Sapna Nehra** Nirwan University Jaipur

Exploring advanced materials for batteries is not just a theoretical exercise but a practical journey into the future of energy. This book is an essential guide, tracing the evolution from early battery technology to the latest innovations and equipping researchers, engineers, and students with the practical knowledge to drive the next wave of sustainable energy solutions.

CRC Press
December 2024:356
Hb: 978-1-032-63133-2: £110

* For full contents and more information, visit: www.routledge.com/9781032631332

Biosensors Based on Graphene, Graphene Oxide and Graphynes for Early Detection of Cancer



Edited by **Pallavi Jain** SRM Institute of Science and Technology, India, **Chandrabhan Verma** King Fahd University of Petroleum & Minerals, Saudi Arabia, **Anirudh Pratap Singh Raman**, **Kamlesh Kumari**, **Prashant Singh** Atma Ram Sanatan Dharma College, India

The detection of cancer at its earliest stages is paramount for successful treatment and improved patient outcomes. In recent years, the field of nanotechnology has witnessed significant advancements, and one material that has emerged as a potential game-changer in cancer detection is graphene. Graphene's high surface area, excellent electrical conductivity, and ability to interact with biological molecules have paved the way for innovative approaches in diagnosing cancer. Moreover, graphene oxide, a derivative of graphene, has gained significant attention in the field of cancer detection.

CRC Press
December 2024:302
Hb: 978-1-032-79279-8: £110

* For full contents and more information, visit: www.routledge.com/9781032792798

An Introduction to Generative Drug Discovery



Edited by **Sean Ekins**

Series: *Drugs and the Pharmaceutical Sciences*

This book focuses on the latest advances in computational de novo drug discovery methods, also known as generative drug discovery. This book describes the state-of-the-art methods and applications for de novo design of drug candidates using generative chemistry models as well as ethical aspects of this technology.

CRC Press
January 2025:240
Hb: 978-1-032-50623-4: £110

* For full contents and more information, visit: www.routledge.com/9781032506234

Calculating Theoretical Yield Is Not Impossible!

A Primer for An Organic Chemistry Lab Course



Michael Leonard

Calculating theoretical and percent yield is a fundamental skill for the laboratory. This book primarily targets Organic Chemistry Laboratory courses at the high school or college and university level, as a supplemental resource to help students master this skill. It begins with simple examples from everyday life, demonstrates the importance of balancing the equation, addresses the role of the mole in these computations, discusses different types of liquids, considers the role of significant figures, and culminates with the planning of syntheses. There are suggestions for further reading as well as practice problems and questions to ensure mastery.

CRC Press
February 2025:136
Pb: 978-1-032-95971-9: £44.99
Hb: 978-1-032-95972-6: £84.99

* For full contents and more information, visit: www.routledge.com/9781032959719

Biopharmaceutical Informatics

Learning to Discover Developable Biotherapeutics



Edited by **Sandeep Kumar** Pfizer, Chesterfield, Missouri, USA, **Andrew Nixon**

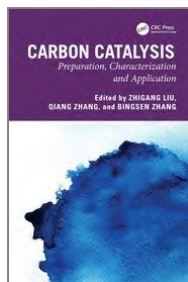
Biopharmaceutical Informatics is a strategic vision that encourages scientists to learn from our collective experiences of successes and, more importantly, failures in discovery and development of biotherapeutics. The insights gained from such learnings shall help us improve rate of successful translation of discoveries into drug products; reduce costs and increase the speed of biologic drug discovery and development. Hopefully, the efficiencies gained from implementing such insights shall make biologic medicines more affordable for the patients.

CRC Press
January 2025:400
Hb: 978-1-032-29167-3: £99.99

* For full contents and more information, visit: www.routledge.com/9781032291673

Carbon Catalysis

Preparation, Characterization and Application



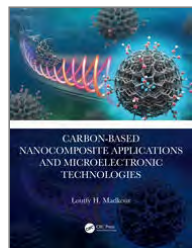
Edited by **Zhigang Liu**, **Qiang Zhang**, **Bingsen Zhang**

This book provides a systematic review of carbon materials, focusing on their properties, development and applications. It emphasizes the synthesis processes of these materials and carbon catalysis, as well as the latest advances in novel carbon materials. This title will serve as a useful reference for researchers and professionals interested in carbon materials, petrochemicals, coal chemicals, new energy and environmental protection. It will also benefit students and academics in the fields of chemical engineering, energy and environmental protection.

CRC Press
December 2024:556
Hb: 978-1-032-89868-1: £175

* For full contents and more information, visit: www.routledge.com/9781032898681

Carbon-Based Nanocomposite Applications and Microelectronic Technologies



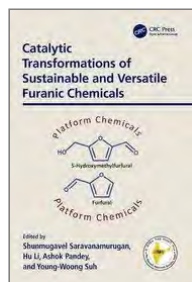
Loutfy H. Madkour Tanta University, Egypt

Carbon-Based Nanocomposite Applications and Microelectronic Technologies covers the fundamentals of Carbon-based Nanomaterials (CNMs) and their potential for technological and industrial applications. Written by a leading expert, this volume gives thorough coverage of biotechnology and biomedical applications of novel carbon nanomaterials and explores the development of microelectronics technologies and nanocomposite.

CRC Press
November 2024:508
Hb: 978-1-032-63606-1: £175
eBook: 978-1-032-63609-2

* For full contents and more information, visit: www.routledge.com/9781032636061

Catalytic Transformations of Sustainable and Versatile Furanic Chemicals



Edited by **S. Saravanamurugan** Center of Innovative and Applied Bioprocessing, India, **Hu Li**, **Ashok Pandey**, **Young-Woong Suh** Hanyang University, Korea (Rep.)

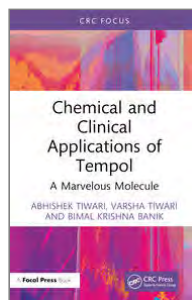
Catalytic Transformations of Sustainable and Versatile Furanic Chemicals aims to explicitly display the latest technical developments on designing functional catalysts, optimizing process and reaction parameters, and improving the stability of the employed materials on the transformation of HMF and furfural to a wide range of value-added chemicals via oxidation, reduction, hydrodeoxygenation and reductive amination processes.

CRC Press
December 2024:270
Hb: 978-1-032-73567-2: £110
eBook: 978-1-003-46483-9

* For full contents and more information, visit: www.routledge.com/9781032735672

Chemical and Clinical Applications of Tempol

A Marvelous Molecule



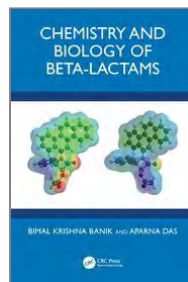
Abhishek Tiwari DVCP, India, **Varsha Tiwari**, **Bimal Krishna Banik** PMU, Saudi Arabia

A comprehensive and authoritative exploration of Tempol (4-Hydroxy-TEMPO), an exceptional chemical compound with diverse applications in both scientific research and medical practice. This book delves into Tempol's unique properties, mechanisms of action, and its potential role in combating oxidative stress-related disorders. Includes a chapter devoted to the safe handling, storage, and disposal of Tempol in compliance with pharmaceutical regulations. The authors pay particular attention to pharmaceutical regulations in the industry.

CRC Press
November 2024:208
Hb: 978-1-032-73002-8: £49.99
eBook: 978-1-003-42682-0

* For full contents and more information, visit: www.routledge.com/9781032730028

Chemistry and Biology of Beta-Lactams



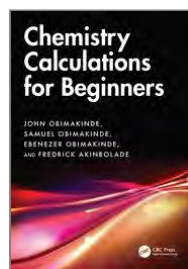
Bimal Krishna Banik PMU, Saudi Arabia, **Aparna Das**

Due to their medicinal activity and potential use as synthetic starting materials, studies on beta-lactams have increased significantly. This unique volume takes readers on a tour de force from the concept of antibiosis, to the serendipity of antibiotics, evolution of beta-lactam development, and the molecular biology of antibiotic resistance. These areas of research have culminated in a deeper understanding of microbiology, particularly in the area of bacterial cell wall synthesis and recycling. Considerable work has been performed by chemists and biologists to continue updating their findings about beta-lactam synthesis.

CRC Press
November 2024:410
Hb: 978-0-367-41524-2: £150
eBook: 978-0-367-81633-9

* For full contents and more information, visit: www.routledge.com/9780367415242

Chemistry Calculations for Beginners



John Obimakinde Greenland Hall, Lagos, Nigeria, **Samuel Obimakinde** Destin Kids Academy, Cape Town, South Africa, **Ebenezer Obimakinde** Federal University of Technology, Akure, Nigeria, **Fredrick Akinbolade** Greenland Hall Educational Services, Nigeria

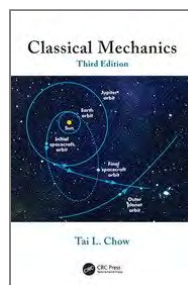
This text is crafted to provide a clear and accessible pathway to overcoming this challenge by assisting students, especially novices or those with minimal knowledge of the subject, in performing chemistry calculations. The content covers fundamental calculations crucial to understanding the principles of chemistry, making it an invaluable tool for students aiming to excel in their studies.

CRC Press
February 2025:256
Pb: 978-1-032-85414-4: £59.99
Hb: 978-1-032-85415-1: £150

* For full contents and more information, visit: www.routledge.com/9781032854144

3RD EDITION

Classical Mechanics



Tai L. Chow California State University, Stanislaus, Turlock, USA

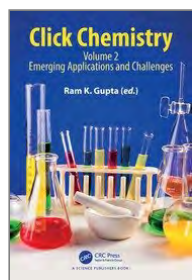
The third edition of Classical Mechanics presents a complete account of the classical mechanics of particles and systems for physics students at the advanced undergraduate level. The textbook evolved from a set of lecture notes for a course on the subject taught for many years by the author at California State University, Stanislaus. It assumes the reader has been exposed to a course in calculus and a calculus-based general physics course. However, no prior knowledge of differential equations is required. Differential equations and new mathematical methods are developed in the text as the occasion demands.

CRC Press
November 2024:516
Hb: 978-1-032-78954-5: £99.99
eBook: 978-1-003-52794-7

* For full contents and more information, visit: www.routledge.com/9781032789545

Click Chemistry

Volume 2: Emerging Applications and Challenges



Edited by **Ram K. Gupta**

The primary goal of this book is to comprehensively explore the evolving applications and challenges of click chemistry. Unlike existing literature, this volume spans the entire spectrum of click chemistry—from foundational principles to cutting-edge applications across diverse fields. Each chapter, authored by leading professionals in the field, addresses emerging applications, challenges, and potential solutions in click chemistry. Designed as an essential textbook, it caters to students and researchers alike, offering fresh insights and opportunities in this rapidly advancing discipline.

CRC Press

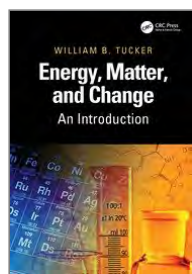
December 2024:278

Hb: 978-1-032-51662-2: £125

* For full contents and more information, visit: www.routledge.com/9781032516622

Energy, Matter, and Change

An Introduction



William B. Tucker

This textbook serves as an introduction to the field of chemistry, aimed at secondary school students, and it assumes no prior knowledge on the readers' part. As an introductory text, the book emphasizes fundamental skills that are necessary for chemistry, and science generally. This includes an emphasis on good writing and a focus on problem solving, with problems incorporated throughout the text. To help prepare students to pursue chemistry further, all information presented is in accord with the International Union of Pure and Applied Chemistry's style and technical guidelines and supported through citations to the primary literature.

CRC Press

December 2024:296

Pb: 978-1-032-78167-9: £52.99

Hb: 978-1-032-78295-9: £130

* For full contents and more information, visit: www.routledge.com/9781032781679

Fluorescent Chemosensing and Bioimaging



Edited by **Suban K. Sahoo** SVNIT, India

Fluorescent Chemosensing and Bioimaging provide detailed information on fluorescent chemosensor design strategies, sensing mechanisms, and potential applications. Fluorescent chemosensors are widely employed for the detection of environmentally and/or biologically important species because of their advantages of low cost, simplicity, high sensitivity, real-time monitoring, versatility, and high temporal and spatial resolution.

CRC Press

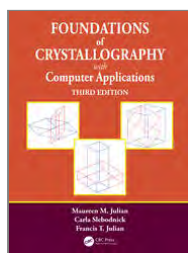
December 2024:366

Hb: 978-1-032-55314-6: £110

* For full contents and more information, visit: www.routledge.com/9781032553146

3RD EDITION

Foundations of Crystallography with Computer Applications



Maureen M. Julian Virginia Polytechnic Institute and State University, Blacksburg, USA, **Carla Slebodnick, Francis T. Julian**

The Third Edition of Foundations of Crystallography with Computer Applications is a textbook for undergraduate and graduate students studying the solid state in chemistry, physics, materials science, geological sciences, and engineering. It takes a straightforward, logical approach to explaining how atoms are arranged in crystals and how crystal systems are related to each other. New to this edition is the inclusion of interactive starter programs in Python, which allow the students to focus on concepts and not treat crystallographic programs as 'black boxes.'

CRC Press

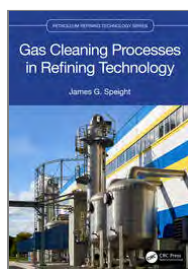
November 2024:524

Pb: 978-1-032-43942-6: £67.99

Hb: 978-1-032-45576-1: £120

* For full contents and more information, visit: www.routledge.com/9781032439426

Gas Cleaning Processes in Refining Technology



James G. Speight CD&W Inc., Laramie, Wyoming, USA

Series: Petroleum Refining Technology Series

This book focusses on the various refinery processes that are used for gas cleaning operations. By understanding the use of gas cleaning processes, this book will satisfy the needs of engineers and scientists at all levels from academia to the refinery and help them understand the initial various processes. This accessible guide is written for managers, professionals, and technicians as well as graduate students transitioning into the refining industry.

CRC Press

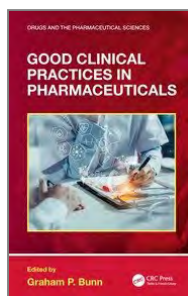
November 2024:278

Hb: 978-1-032-03305-1: £175

eBook: 978-1-003-18666-3

* For full contents and more information, visit: www.routledge.com/9781032033051

Good Clinical Practices in Pharmaceuticals



Edited by **Graham P. Bunn** GB Consulting LLC, in Pennsylvania, USA

Series: Drugs and the Pharmaceutical Sciences

Good clinical practice (GCP) is a set of internationally-recognised ethical and scientific quality requirements that must be followed when designing, conducting, recording and reporting trials that involve the participation of human subjects. Compliance with GCP assures patients and the public that the rights, safety and wellbeing of people taking part in studies are protected and that research data is reliable.

CRC Press

November 2024:206

Hb: 978-1-032-52407-8: £99.99

eBook: 978-1-003-40701-0

* For full contents and more information, visit: www.routledge.com/9781032524078

2ND EDITION

Handbook of Acid-Base Indicators



R.W. Sabnis

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

CRC Press

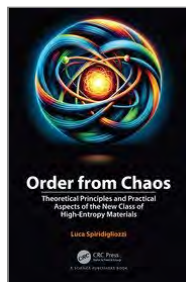
April 2025:1200

Hb: 978-1-138-19805-0: £190

* For full contents and more information, visit: www.routledge.com/9781138198050

Order from Chaos

Theoretical Principles and Practical Aspects of the New Class of High-Entropy Materials



Luca Spirdiglozzi

"Order from Chaos: Theoretical Principles and Practical Aspects of the New Class of High-Entropy Materials" offers a comprehensive exploration of High-Entropy Materials, a novel class of materials characterized by complex compositions and unexpected properties. The book delves into the fundamental principles underlying the formation and stabilization of differently structured High-Entropy Ceramics, presenting a detailed analysis of their main physical and technological properties. Moreover, the book discusses the challenges and future prospects of High-Entropy Ceramics as well as their potential applications in various industrial sectors.

CRC Press

November 2024:192

Hb: 978-1-032-38794-9: £115

eBook: 978-1-003-34680-7

* For full contents and more information, visit: www.routledge.com/9781032387949

Micro Plastics

Detection, Extraction, Remediation Techniques, and Future Perspective



Edited by Nirmala Kumari Jangid, Rekha Sharma

This book is focused majorly on the Detection, Extraction, Remediation Techniques, and future perspective of microplastics. This book will include characteristics, fluctuations, distribution, and water remediation of microplastics using various functionalized nanomaterials. This book also will cover the impact of microplastics, discharged from domestic and various industrial fields such as pharmaceutical, clothing, polymer industries, etc. for the reader-free quantification of poisonous substances in water. This book is aimed at researchers, graduate students, and faculty members who can apply their knowledge in the emerging field of research on microplastic remediation.

CRC Press

February 2025:254

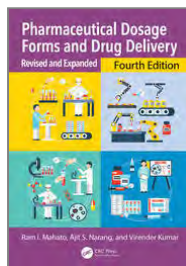
Hb: 978-1-032-78236-2: £110

* For full contents and more information, visit: www.routledge.com/9781032782362

4TH EDITION

Pharmaceutical Dosage Forms and Drug Delivery

Revised and Expanded



Ram I. Mahato University of Nebraska Medical Center, Omaha, USA, Ajit S. Narang Genentech Inc, San Francisco, USA, Virender Kumar

Completely revised and updated, this fourth edition elucidates the principles of pharmaceuticals, biopharmaceutics, dosage form design, and drug delivery – including emerging new biotechnology-based treatment modalities. The authors integrate aspects of physical pharmacy, chemistry, biology, and biopharmaceutics into drug delivery.

CRC Press

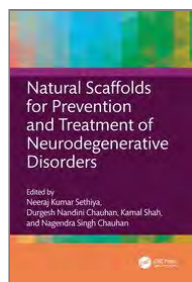
November 2024:566

Hb: 978-1-032-48060-2: £120

eBook: 978-1-003-38937-8

* For full contents and more information, visit: www.routledge.com/9781032480602

Natural Scaffolds for Prevention and Treatment of Neurodegenerative Disorders



Edited by Neeraj Kumar Sethiya DIT University, India, Durgesh Nandini Chauhan Ishita Research Organisation, Raipur, Kamal Shah, Nagendra Singh Chauhan

Natural Scaffolds for Prevention and Treatment of Neurodegenerative Disorders will provide compiled information stating several identified neurodegenerative diseases including pathology and physiology. From vast literature on natural products including scientifically validated plant bioactive, from traditional approaches to combat or prevent such conditions are also included along with molecular mechanisms.

CRC Press

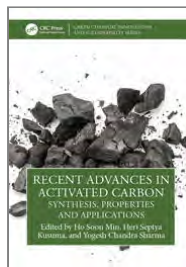
February 2025:400

Hb: 978-1-032-51643-1: £140

* For full contents and more information, visit: www.routledge.com/9781032516431

Recent Advances in Activated Carbon

Synthesis, Properties and Applications



Edited by Ho Soon Min, Heri Septya Kusuma, Yogesh Chandra Sharma

Series: Green Chemical Innovations and Sustainability

Focuses on identifying potential precursors from agricultural waste, municipal waste, and industrial waste and investigate toxic pollutants.

CRC Press

December 2024:276

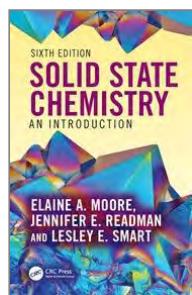
Hb: 978-1-032-77220-2: £120

* For full contents and more information, visit: www.routledge.com/9781032772202

6TH EDITION

Solid State Chemistry

An Introduction



Elaine A. Moore The Open University, Milton Keynes, UK,
Jennifer Readman University of Central Lancashire

Solid-state chemistry is still a rapidly advancing field, contributing to areas such as batteries for transport and energy storage, nanostructured materials, porous materials for the capture of carbon dioxide and other pollutants. This edition aims, as previously, not only to teach the basic science that underpins the subject, but also to direct the reader to the most modern techniques and to expanding and new areas of research. The user-friendly style takes a largely non-mathematical approach and gives practical examples of applications of solid state materials and concepts.

CRC Press

April 2025:440

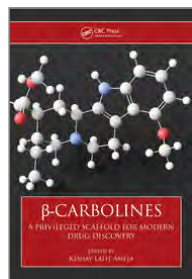
Pb: 978-1-032-72887-2: £44.99

Hb: 978-1-032-72894-0: £94.99

* For full contents and more information, visit: www.routledge.com/9781032728872

β-Carbolines

A Privileged Scaffold for Modern Drug Discovery



Edited by Keshav Lalit Ameta Mody University of Science and Technology, India

β-Carbolines: A Privileged Scaffold for Modern Drug Discovery provides a summary of methods for the synthesis of various natural products engineered with the diverse β-carboline scaffold and their biological evaluation. β-Carboline and its derivatives have generated considerable interest in recent years for their versatile properties in chemistry and pharmacology. This is due to their ability to act as agonists to benzodiazepine receptors, hydroxy serotonin receptors, and intercalate into DNA, to inhibit CDK, Topoisomerase, and monoamine oxidase enzymes.

CRC Press

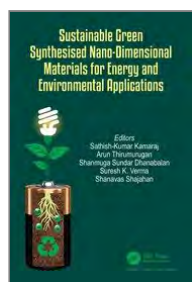
November 2024:282

Hb: 978-1-138-48238-8: £170

eBook: 978-1-351-05803-2

* For full contents and more information, visit: www.routledge.com/9781138482388

Sustainable Green Synthesised Nano-Dimensional Materials for Energy and Environmental Applications



Edited by Sathish-Kumar Kamaraj Instituto Tecnológico El Llano Aguascalientes, Mexico, **Arun Thirumurugan** Universidad de ATACAMA, Chile, **Shanmuga Sundar Dhanabalan** RMIT University, Melbourne, **Suresh K. Verma** KIIT University, India, **Shanavas Shajahan** Khalifa University, UAE

There is a growing interest in applying the UN's sustainable development goals to a variety of sectors. One can use certain principles of green chemistry in the emerging fields of nanoscience and nanotechnology. The green chemistry approach focuses on the creation of nanodimensional materials that have a low environmental impact, are cost-effective, and have no negative consequences on the environment. This book aims to summarise the different alternative green chemical routes. Furthermore, the book describes the use of nano-dimensional materials for sustainable energy generation and environmental remediation applications.

CRC Press

December 2024:282

Hb: 978-1-032-42318-0: £140

* For full contents and more information, visit: www.routledge.com/9781032423180

Synthesis and Applications of Carbohydrates, Lipids, and Steroids



Edited by Ahindra Nag Indian Institute Of Technology , Kharagpur, India

This definitive text provides in-depth information on chemical, photochemical, and microbiological synthesis of carbohydrates and their derivatives. A recent development on the synthesis and applications of carbohydrates involved in food industries, biosurfactants, nano-catalysts, and nucleosides have been thoroughly discussed in this innovative work. The text also provides information about synthesis and applications of artificial lipids and steroids. The approach of this book is to fulfill the requirements of graduate, postgraduate students and scientists belonging to various fields.

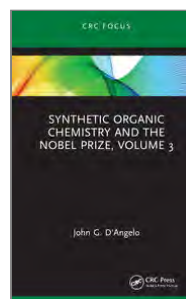
CRC Press

April 2025:464

Hb: 978-1-032-56860-7: £140

* For full contents and more information, visit: www.routledge.com/9781032568607

Synthetic Organic Chemistry and the Nobel Prize, Volume 3



John G. D'Angelo Alfred University, NY, USA

Series: Synthetic Organic Chemistry and the Nobel Prize

The Nobel Prize is the highest award in science, as is the case with nonscience fields too, and it is, therefore, arguably the most internationally recognized award in the world. This unique set of volumes focuses on summarizing the Nobel Prize within organic chemistry, as well as the specializations within this specialty. Any reader researching the history of the field of organic chemistry will be interested in this work. Furthermore, it serves as an outstanding resource for providing a better understanding of the circumstances that led to these amazing discoveries and what has happened as a result, in the years since.

CRC Press

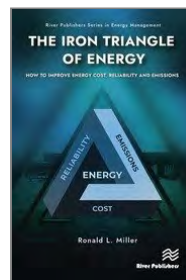
December 2024:144

Hb: 978-0-367-43899-9: £49.99

* For full contents and more information, visit: www.routledge.com/9780367438999

The Iron Triangle of Energy

How to Improve Energy Cost, Reliability, & Emissions



Ronald L. Miller

Series: River Publishers Series in Energy Management

"The Iron Triangle of Energy" explores the intricate balance between cheap, reliable, and clean energy. In a world of trade-offs, this book provides rational ideas to optimize energy choices. With a focus on education and mentoring, it equips consumers, students, industry, and government with the knowledge needed to make informed decisions for our future. Rich with pertinent graphs, it offers a clear understanding of key energy issues.

River Publishers

November 2024:224

Hb: 978-8-770-04240-6: £99.99

eBook: 978-8-770-04684-8

* For full contents and more information, visit: www.routledge.com/9788770042406

Viral Oncology

New Approaches to Molecular Cancer Therapeutics



Edited by **Umesh Kumar** IMS Ghaziabad, **Deepak Parashar** Medical College of Wisconsin, **Subodh Kumar** PGIMER Chandigarh

Series: Drugs and the Pharmaceutical Sciences

New Approaches to Molecular Cancer Therapeutics offers a comprehensive exploration of how viruses contribute to cancer development, bridging the gap between basic virology and clinical oncology. Featuring contributions from leading researchers, this authoritative text examines the mechanisms of viral oncogenesis, key oncogenic viruses, and the latest therapeutic strategies. The book highlights cutting-edge research on HPV, EBV, Hepatitis B and C, and other cancer-causing viruses, providing clinicians and researchers with critical insights into the prevention, diagnosis, and treatment of virus-induced cancers.

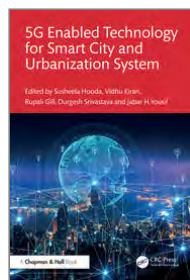
CRC Press

April 2025: 512

Hb: 978-1-032-85041-2: £170

* For full contents and more information, visit: www.routledge.com/9781032850412

5G Enabled Technology for Smart City and Urbanization System



Edited by **Susheela Hooda**, **Vidhu Kiran** CDSIET, paniwala Mota, sirsa, **Rupali Gill** Chitkara University Institute of Engineering and Technology, Chitkara University Punjab, **Durgesh Srivastava** Chitkara University, Punjab, **Jabar H. Yousif** Sohar University, Oman

This book examines the applications, trends and challenges of 5G Enabled technologies for Smart City and Urbanization systems. It addresses the challenges to bringing such capabilities of 5G-enabled technologies for smart cities and urbanisation into practice by presenting the theoretical as well as technical research outcomes with case studies. It covers key areas, including smart building, smart health care, smart mobility, smart living, smart surveillance, and IOT-based systems. It explains how these systems are connected using different technologies that support 5G access and control protocols.

Chapman & Hall
December 2024:246
Hb: 978-1-032-74013-3: **£145**
eBook: 978-1-003-46789-2

* For full contents and more information, visit: www.routledge.com/9781032740133

2ND EDITION

A Concise Introduction to Machine Learning



A.C. Faul University of Cambridge, UK

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

A Concise Introduction to Machine Learning uses mathematics as the common language to explain a variety of machine learning concepts from basic principles and illustrates every concept using examples in both Python and Matlab® which are available on GitHub and can be run from there in Binder in a web browser. Each chapter concludes with exercises to explore the content. The emphasis of the book is on the question of Why - only if why an algorithm is successful is understood, can it be properly applied, and the results trusted. Standard techniques are treated rigorously, including an introduction to the necessary probability theory.

Chapman & Hall
April 2025:334
Pb: 978-1-032-87814-0: **£44.99**
Hb: 978-1-032-87817-1: **£120**

* For full contents and more information, visit: www.routledge.com/9781032878140

Adopting Artificial Intelligence Tools in Higher Education

Teaching and Learning



Edited by **Thangavel Murugan** United Arab Emirates University, UAE, **Karthikeyan Periasamy** Thiagarajar College of Engineering, India, **A.M. Abirami** Thiagarajar College of Engineering, India

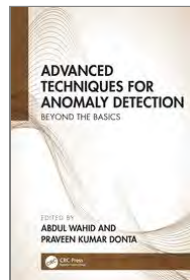
The book offers a modern exploration of the intersection of technology and education. It examines the prospects of integrating different AI tools into higher education and explores the challenges, opportunities, and innovative solutions for the different issues surrounding the use of AI in higher education. An essential read for educators, administrators, researchers, and policymakers who want to leverage AI to create an adaptive, personalized, and engaging learning environment. "Adopting Artificial Intelligence Tools in Higher Education" provides valuable insights into the future of education, paving the way for a more empowered and enlightened academic world.

CRC Press
December 2024:376
Pb: 978-1-032-74463-6: **£44.99**
Hb: 978-1-032-74464-3: **£130**

* For full contents and more information, visit: www.routledge.com/9781032744636

Advanced Techniques for Anomaly Detection

Beyond the Basics



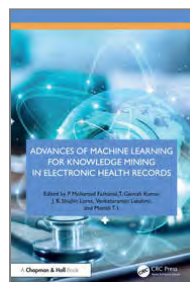
Edited by **ABDUL WAHID**, **Praveen Kumar Donta**

With this book, we will summarize the latest developments in anomaly detection techniques across various fields, including cybersecurity, finance, image processing, sensor networks, social network analysis, health systems, and IoT systems. The book will provide readers with a comprehensive understanding of advanced anomaly detection techniques, such as deep learning-based anomaly detection, feature selection and extraction techniques, ensemble methods, and evaluation metrics.

CRC Press
April 2025:128
Hb: 978-1-032-72930-5: **£115**

* For full contents and more information, visit: www.routledge.com/9781032729305

Advances of Machine Learning for Knowledge Mining in Electronic Health Records



Edited by **P. Mohamed Fathimal** Government Polytechnic College, India, **T. Ganesh Kumar** Galgotias Uni., **J. B. Shajilin Loreet** FX Engineering College, India, **Venkataraman Lakshmi**, **Manish T. I.** SCMS School and Engg and Tech, India

The book explores the application of cutting-edge machine learning and deep learning algorithms in mining Electronic Health Records (EHR). With the aim of improving patient health management, this book explains the structure of EHR, consisting of demographics, medical history, and diagnosis, with a focus on the design and representation of structured, semi-structured, and unstructured data.

Chapman & Hall
March 2025:304
Hb: 978-1-032-52610-2: **£140**

* For full contents and more information, visit: www.routledge.com/9781032526102

Advancing Healthcare through Data-driven Innovations



Edited by **Gunjan Rehani** NIT Delhi, India, **Aditya Gupta** Manipal Uni, India, **Vibha Jain**

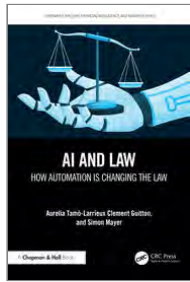
"Advancing Healthcare through Data-Driven Innovations" explores how technologies like data analytics, big data, machine learning, and blockchain can revolutionize healthcare. It covers the role of these tools in enhancing decision-making, improving patient outcomes, and ensuring data integrity.

CRC Press
December 2024:206
Hb: 978-1-032-73717-1: **£115**

* For full contents and more information, visit: www.routledge.com/9781032737171

AI and Law

How Automation is Changing the Law



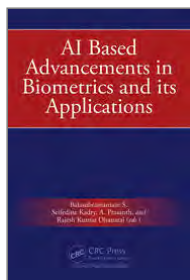
Aurelia Tamo-Larrieux, Clement Guitton, Simon Mayer

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

The book explores diverse legal tech applications, from "robot-judges" to computational law, systematically classifying their impacts and distinguishing between hype and reality. It examines scandals and ethical issues in legal tech worldwide, highlighting accountability challenges and real-world consequences.

CRC Press
February 2025:272
Pb: 978-1-032-46452-7: **£44.99**
Hb: 978-1-032-48006-0: **£110**
* For full contents and more information, visit: www.routledge.com/9781032464527

AI Based Advancements in Biometrics and its Applications



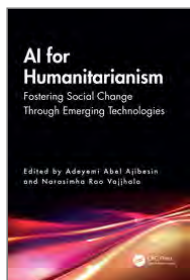
Edited by **Balasubramaniam S, Seifedine Kadry** Noroff University college, Norway, **A. Prasanth** Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, India, **Rajesh Kumar Dhanaraj** Symbiosis International (Deemed University)

This book delves into the history of biometrics, the various systems that have been developed to date, the problems that have arisen from these systems, the necessity of AI-based biometrics systems, the various AI techniques that have been developed to date (including machine learning, deep learning, natural language processing, and pattern recognition), their potential uses and applications, security and privacy issues in AI-based Biometric systems, current trends in AI-based biometrics, and various case studies of AI-based biometrics.

CRC Press
November 2024:274
Hb: 978-1-032-69050-6: **£130**
eBook: 978-1-032-70237-7
* For full contents and more information, visit: www.routledge.com/9781032690506

AI for Humanitarianism

Fostering Social Change Through Emerging Technologies

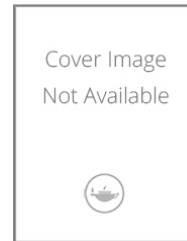


Edited by **Adeyemi Abel Ajibesin, Narasimha Rao Vajjhala**

This book explores the transformative potential of Artificial Intelligence (AI) in addressing critical humanitarian challenges. It examines AI's role in enhancing emergency responses, poverty alleviation, and healthcare. Chapters authored by a diverse group of international contributors cover topics such as AI's application in disease prediction, ethical AI practices, and innovative resource distribution. This book uniquely blends theoretical insights with practical case studies, providing a roadmap for leveraging AI in humanitarian efforts.

CRC Press
January 2025:244
Pb: 978-1-032-74839-9: **£44.99**
Hb: 978-1-032-76571-6: **£115**
* For full contents and more information, visit: www.routledge.com/9781032748399

AI for Understanding Human Conversations



Yair Neuman

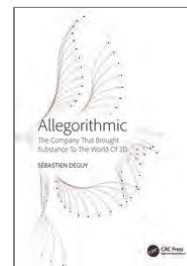
Series: AI for Everything

AI and specifically LLMs revolutionize our lives with new technologies appearing at an unprecedented rate. These technologies can potentially change how we understand human conversations, from the dialogues of married couples to diplomatic conversations. The current book explains how to use LLMs to analyze human conversations and how better LLMs can be developed by incorporating a deep theoretical understanding. Drawing on case studies from Pulp Fiction to diplomatic meetings, the book provides detailed, approachable, and theoretically grounded explanations of how LLMs can help us understand conversations.

CRC Press
March 2025:204
Pb: 978-1-032-96876-6: **£22.99**
Hb: 978-1-032-96878-0: **£59.99**
* For full contents and more information, visit: www.routledge.com/9781032968766

Allegorithmic

The Company That Brought Substance to the World of 3D



Sébastien Deguy

Allegorithmic: The Company That Brought Substance to the World of 3D explores the journey of Allegorithmic, the software company behind Substance, a suite of tools that revolutionized texturing in computer graphics. This engaging narrative by Sébastien Deguy, the visionary founder and CEO of the company, chronicles the growth of Allegorithmic from its inception as a small startup to becoming a leader in digital content creation, pivotal in shaping the visual aesthetics of video games and films.

CRC Press
January 2025:464
Hb: 978-1-032-87820-1: **£59.99**
* For full contents and more information, visit: www.routledge.com/9781032878201

Animation Craft

For 3D and 2D Animators



Jonathan Annand

This book is for those who want to learn the craft or mechanics of animation, how to actually animate a scene from start to finish, or take their animation to the next level. Using over 600 examples, this book answers the questions about the craft of animation that are often not taught in schools or books. Animation Craft for 3D and 2D Animators will be a great resource for any beginner looking to learn the fundamentals of animation, or more experienced animators looking to hone their craft.

CRC Press
June 2025:376
Pb: 978-1-032-42239-8: **£48.99**
Hb: 978-1-032-42240-4: **£120**
* For full contents and more information, visit: www.routledge.com/9781032422398

Animation in Austria

An Almost Invisible Art



Florian Schmidlechner

Series: European Animation

This book provides a comprehensive account of Austrian animation history, as well as an analysis of the current state of the industry in competition with American and cheaper international products in the face of dwindling budgets. This book will be of great interest to academics, students, and professionals working and researching in the field of animation.

CRC Press

April 2025:304

Hb: 978-1-032-54148-8: **£77.99**

* For full contents and more information, visit: www.routledge.com/9781032541488

Animation in Croatia

Zagreb School and Beyond



Midhat Ajanović Univ. West, Sweden

Series: European Animation

This book provides a comprehensive account of Croatian animation history, as well as an analysis of background factors such as political and social circumstances and cultural heritage that influenced the great international success of Croatian animators between the 1960s and 1980s. This book will be of great interest to academics, students, and professionals working and researching in the field of animation.

CRC Press

December 2024:182

Hb: 978-1-032-45147-3: **£77.99**

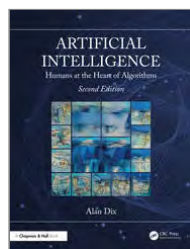
eBook: 978-1-003-37562-3

* For full contents and more information, visit: www.routledge.com/9781032451473

2ND EDITION

Artificial Intelligence

Humans at the Heart of Algorithms



Alan Dix Swansea University, Fabian Way, Swansea, Wales

It expands the book's focus on human-centred AI, covering bias (gender, ethnic), the need for transparency, augmentation vs replacement, IUI, and designing interactions to aid ML. With detailed, well-illustrated examples and exercises throughout, this book provides a substantial and robust introduction to artificial intelligence in a clear and concise coursebook form.

Chapman & Hall

March 2025:704

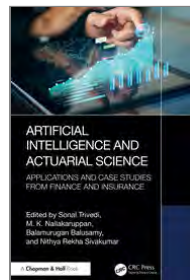
Pb: 978-0-367-51598-0: **£45.99**

Hb: 978-0-367-53687-9: **£120**

* For full contents and more information, visit: www.routledge.com/9780367515980

Artificial Intelligence and Actuarial Science

Applications and Case Studies from Finance and Insurance



Edited by **Sonal Trivedi**, **M. K. Nallakaruppan** Vellore Institute of Technology, India, **Balamurugan Balusamy**, **Nithya Rekha Sivakumar** Princess Nourah Bint Abdulrahman University, Saudi Arabia

This book aims to explore how to automate, innovate, design, and deploy emerging technologies in Actuarial work transformations for the insurance and finance sector. It examines the role of artificial intelligence with process automation in daily monitoring solvency, governance, compliance, data processes, etc. It also explores the usage of Machine learning, telematics system, AI- AI-enabled claim processing software, Big Data and Algorithms, Explainable AI, AI-enabled risk management tools in various actuarial processes.

Chapman & Hall

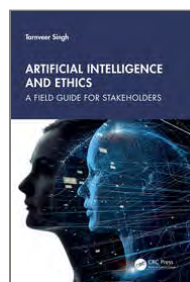
December 2024:240

Hb: 978-1-032-75133-7: **£145**

* For full contents and more information, visit: www.routledge.com/9781032751337

Artificial Intelligence and Ethics

A Field Guide for Stakeholders



Tarnveer Singh

This book uncovers Artificial Intelligence, benefits it brings as well as the ethical dilemmas. The rise of AI and super-intelligent AI raises ethical issues. It will guide stakeholders such as scientists, ethicists and policymakers to consider the complexities AI brings and how to navigate these. AI brings complex ethical issues that need to be resolved and this book brings forward the benefits and drives readers away from potential risks around this new technology to help business growth. The book covers lots of case studies to prove both the potential benefits but also real-life examples of what can happen if risk is not managed effectively.

CRC Press

November 2024:278

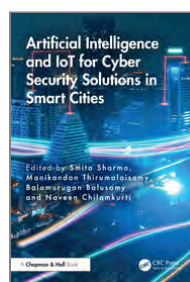
Pb: 978-1-032-81526-8: **£44.99**

Hb: 978-1-032-82054-5: **£115**

eBook: 978-1-003-50270-8

* For full contents and more information, visit: www.routledge.com/9781032815268

Artificial Intelligence and IoT for Cyber Security Solutions in Smart Cities



Edited by **Smita Sharma**, **Manikandan Thirumalaisamy**, **Balamurugan Balusamy** Shiv Nadar Uni., **Naveen Chilamkurti** La Trobe University, Melbourne

This book offers a comprehensive overview of the current state of cybersecurity in smart cities and explores how AI and IoT technologies can be used to address cybersecurity challenges. It discusses the potential of AI for threat detection, risk assessment, and incident response, as well as the use of IoT sensors for real-time monitoring and data analysis in the context of smart cities. It includes case studies from around the world to provide practical insights into the use of AI and IoT technologies for enhancing cybersecurity in different contexts and highlight the potential benefits of these technologies for improving the resilience and security of smart cities.

Chapman & Hall

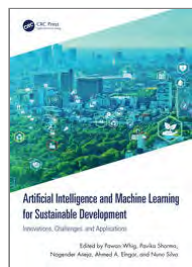
December 2024:202

Hb: 978-1-032-60596-8: **£140**

* For full contents and more information, visit: www.routledge.com/9781032605968

Artificial Intelligence and Machine Learning for Sustainable Development

Innovations, Challenges, and Applications



Edited by **Pawan Whig, Pavika Sharma, Nagender Aneja, Ahmed A. Elngar, Nuno Silva**

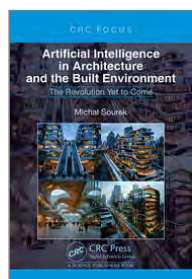
This book examines whether technology can be used to fix the very problems caused by technology, as the various chapters examine different aspects related to how technology has brought us where we are today (which some will say is the best place humanity's been at according to a range of metrics), and whether technology helps or hinders us in our efforts to solve the challenges we currently face. The issues discussed cover the three sustainability dimensions and include topics such as the materiality of AI, technology in education, AI for gender equality, innovation and the digital divide, and how technology relates to power, the political system, and capitalism.

CRC Press
December 2024:286
Hb: 978-1-032-77835-8: **£120**
eBook: 978-1-003-49718-9

* For full contents and more information, visit: www.routledge.com/9781032778358

Artificial Intelligence in Architecture and the Built Environment

The Revolution Yet to Come



Michal Sourek Czech Technical University in Prague

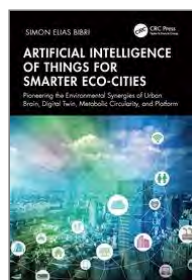
An AI assistant that learns from a human expert to handle the routine and parametric aspects of architectural design not only represents a forward-thinking vision for the profession but also offers significant opportunities for computer scientists, AI developers, investors, and ultimately, society as a whole. Based on a comprehensive critical review, the book provides a blueprint for making this vision true.

CRC Press
January 2025:134
Hb: 978-1-032-96997-8: **£49.99**

* For full contents and more information, visit: www.routledge.com/9781032969978

Artificial Intelligence of Things for Smarter Eco-Cities

Pioneering the Environmental Synergies of Urban Brain, Digital Twin, Metabolic Circularity, and Platform



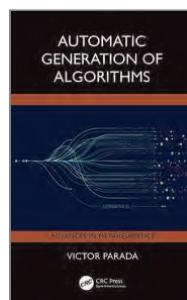
Simon Elias Bibri

This volume takes readers on a captivating journey into the transformative power of Artificial Intelligence (AI) and Artificial Intelligence of Things (AIoT) technologies in revolutionizing sustainable urban development. Providing comprehensive theoretical analyses, synthesizing rich evidence, and presenting practical case studies, this book offers novel interdisciplinary insights and pioneering frameworks for synergizing Urban Brain, Urban Digital Twin, Smart Urban Metabolism, and Platform Urbanism. An essential guide for researchers, practitioners, industry professionals, policymakers, and anyone curious about technological advancements.

CRC Press
December 2024:608
Pb: 978-1-032-88155-3: **£94.99**
Hb: 978-1-032-88156-0: **£250**

* For full contents and more information, visit: www.routledge.com/9781032881553

Automatic Generation Of Algorithms



Victor Parada

Series: *Advances in Metaheuristics*

This book is structured to guide readers through AGA's conceptual underpinnings, practical applications, and future directions. Beginning with an overview of combinatorial optimization and the significance of NP-hardness, we set the stage for understanding the necessity and potential of AGA.

CRC Press
February 2025:248
Hb: 978-1-032-89445-4: **£180**

* For full contents and more information, visit: www.routledge.com/9781032894454

Back to Statistics

Tail-aware Control Performance Assessment



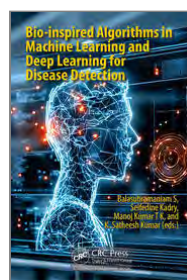
Paweł D. Domański

Due to the popularity of artificial intelligence today, scientists and practitioners tend to ignore the achievements of statistical methods. This book aims to re-establish statistical methods, especially for control practitioners, for whom the task of assessing control performance is important. By addressing statistical issues of sustainability, extreme statistics, non-Gaussianity, L-moments, tail index and index ratio diagrams, the author aims to change traditional concepts and broaden the scope of available methods. The book will be of interest to site control engineers and scholars assessing control systems and process performance.

CRC Press
April 2025:328
Hb: 978-1-032-67174-1: **£59.99**

* For full contents and more information, visit: www.routledge.com/9781032671741

Bio-inspired Algorithms in Machine Learning and Deep Learning for Disease Detection



Edited by **Balasubramaniam S, Seifedine Kadry** Noroff University college, Norway, **Manojkumar TK** Digital University, India, **K. Sathesh Kumar**

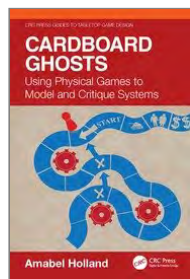
This book delves into the history of biometrics, the various systems that have been developed to date, the problems that have arisen from these systems, the necessity of AI-based biometrics systems, the various AI techniques that have been developed to date (including machine learning, deep learning, natural language processing, and pattern recognition), their potential uses and applications, security and privacy issues in AI-based Biometric systems, current trends in AI-based biometrics, and various case studies of AI-based biometrics.

CRC Press
March 2025:262
Hb: 978-1-032-86548-5: **£130**

* For full contents and more information, visit: www.routledge.com/9781032865485

Cardboard Ghosts

Using Physical Games to Model and Critique Systems



Amabel Holland

Series: CRC Press Guides to Tabletop Game Design

In this book, board game designer Amabel Holland explores both the capabilities and limitations of overtly political board games to model systems and make arguments. Two major approaches are considered and contrasted: one, built around immersion and identification, creates empathy. The other, applying the Verfremdungseffekt to distance the player from the game, creating space for reflection. Uncomfortable questions of player roles and complicity when modelling oppressive systems are examined.

CRC Press

January 2025:144

Pb: 978-1-032-81344-8: **£44.99**

Hb: 978-1-032-81668-5: **£115**

* For full contents and more information, visit: www.routledge.com/9781032813448

Challenges and Solutions in Internet of Things-Based Smart Applications



Edited by **Narendra Shekhar** DJSC, Ville Parle, Maharashtra, **Subhash K. Shinde**, **Smita Sanjay Ambarkar**, **Antonis Michalas** Tampere University, Finland, **Monika Mangla** Lokmanya Tilak CoE, **Achamma Thomas**

This text presents innovative research-oriented ideas, and the implementation and socio-economic applications of internet of things-based network. It showcases smart waste management, optical technologies for internet of things, and remote patient monitoring and data analysis. Presents advanced research on smart waste management using internet of things and blockchain Explains the optical technologies for internet of things and image projection on visual cortex using internet of things sensors

Chapman & Hall

January 2025:176

Hb: 978-1-032-55657-4: **£140**

* For full contents and more information, visit: www.routledge.com/9781032556574

2ND EDITION

Clockwork Game Design



Keith Burgun

Clockwork Game Design is a functional and directly applicable theory for game design, particularly focusing on strategic and tactical games, but also more broadly applicable to many kinds of games. It details the Clockwork Game Design pattern, which focuses on building around a fundamental core functionality. You can then use this understanding to build a system of tools that helps a designer refine their rulesets. The Second Edition is filled with examples and exercises detailing how to put the clockwork game design pattern into use, this book is a helpful tool in the toolbox of game designers.

CRC Press

December 2024:162

Pb: 978-1-032-77157-1: **£44.99**

Hb: 978-1-032-77731-3: **£115**

eBook: 978-1-003-48454-7

* For full contents and more information, visit: www.routledge.com/9781032771571

Cloud Computing for Smart Education and Collaborative Learning



Edited by **Urmila Shrawankar** RTM Univ., **Perna Mishra**

The book presents next-generation education technology and the pedagogy of the Education Cloud. It covers technological developments, case studies, innovative research approaches and solutions for advanced learning paradigms using IoT, cloud computing, and machine learning to handle various challenges of the smart education system. It discussed cloud architecture, management, and framework for education from virtual classrooms and labs. It shows how cloud computing framework can be integrated with fog computing, edge computing, deep learning and IOT.

Chapman & Hall

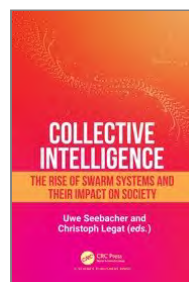
April 2025:416

Hb: 978-1-032-74115-4: **£145**

* For full contents and more information, visit: www.routledge.com/9781032741154

Collective Intelligence

The Rise of Swarm Systems and their Impact on Society



Edited by **Uwe Seebacher**, **Christoph Legat**

Discover the revolutionary potential of swarm intelligence in this groundbreaking book. Explore how predictive intelligence and advanced algorithms enhance autonomous systems across industries, from manufacturing to energy. Learn about the innovative Industrial-Disruption-Index (IDI) and its role in analyzing industry disruptions. Addressing critical societal challenges, the book highlights the urgent shift from the Green Deal to the Emerald Deal. Essential for AI, machine learning, and predictive intelligence enthusiasts, this book offers cutting-edge insights and practical solutions.

CRC Press

November 2024:314

Hb: 978-1-032-69068-1: **£125**

eBook: 978-1-032-69071-1

* For full contents and more information, visit: www.routledge.com/9781032690681

Computational Techniques for Smart Manufacturing in Industry 5.0

Methods and Applications



Edited by **Kim Phuc Tran** ENSAIT & GEMTEX, France, **Zhenglei He**

This work reviews recent advancements in research, new methods and techniques, and applications in computational techniques in intelligent manufacturing. Researchers, postgraduate students, and practitioners will benefit from this book to enhance their understanding of computational intelligent techniques, and their use in manufacturing industry in the context of modelling, simulation, decision making with uncertainty etc. Real-world case studies and applications in various fields are included in each chapter.

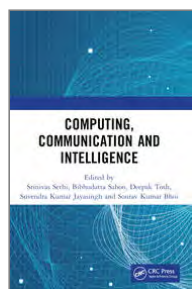
CRC Press

January 2025:386

Hb: 978-1-032-50620-3: **£125**

* For full contents and more information, visit: www.routledge.com/9781032506203

Computing, Communication and Intelligence



Edited by Srinivas Sethi, Bibhudatta Sahoo, Deepak Tosh, Suvendra Kumar Jayasingh, Sourav Kumar Bhoi

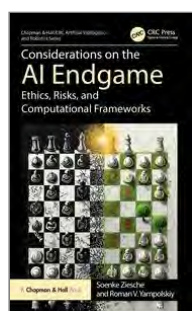
The International Conference on Cutting-edge Technology in Computing, Communications, and Intelligence- (ICCTCCI-2024) focuses on the application of smart technology and materials for smarter industrial production. The ICCTCCI-2024 provides a common platform for presentation of original research findings, exchange of ideas and dissemination of innovative, practical development experiences in different aspects and fields of industry. It also focuses on the event organized with the objective of bringing together academicians, scientists, researchers from industry, research scholars, and students working in different industrial domains and applied applications.

CRC Press
January 2025:334
Pb: 978-1-032-94682-5: **£44.99**

* For full contents and more information, visit: www.routledge.com/9781032946825

Considerations on the AI Endgame

Ethics, Risks, and Computational Frameworks



Soenke Ziesche, Roman V. Yampolskiy University of Louisville, Kentucky, USA

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

Written by leading scholars Soenke Ziesche and Roman V. Yampolskiy, this book offers an interdisciplinary exploration into the rapidly evolving field of artificial intelligence and its societal implications. Topics explored include the question of AI identity, the concept of 'ikigai' in AI ethics, and a call to merge Western and non-Western approaches towards universal AI ethics. By offering a balanced mix of theoretical and applied insights, the book serves as an invaluable resource for researchers, policymakers, and anyone interested in the future of AI and the extent of its impact on society.

Chapman & Hall
February 2025:224
Pb: 978-1-032-93383-2: **£24.99**
Hb: 978-1-032-93384-9: **£97.99**

* For full contents and more information, visit: www.routledge.com/9781032933832

Creating High-Quality Vegetation for Games



Chico Spans

This is a start-to-finish guide on how to build high-quality vegetation for video games. The book gives readers the fundamentals of the craft and the skills needed to confidently create natural environments. This book will be of interest to all beginner and aspiring environment, and vegetation artists looking to learn how to create high-quality vegetation, as well as more experienced artists looking to hone their craft.

CRC Press
May 2025:208
Pb: 978-1-032-78564-6: **£44.99**
Hb: 978-1-032-79480-8: **£120**

* For full contents and more information, visit: www.routledge.com/9781032785646

Creating Images Using AI

A Step-by-Step Guide to Midjourney



Julie Pallant

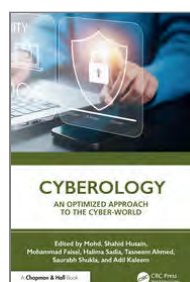
Creating Images Using AI: A Step-by-Step Guide to Midjourney is an essential resource for professionals and others looking to harness the amazing power of AI-powered image generator programs and to ensure they keep up to date with developments in this rapidly evolving field. This comprehensive guide offers an in-depth exploration of Midjourney, one of the most respected programs available today, used by over 17 million users. Whether you're seeking to enhance your professional toolkit or simply explore AI as a creative outlet, this book offers the knowledge and skills to harness Midjourney's full potential.

CRC Press
December 2024:174
Pb: 978-1-032-88672-5: **£48.99**
Hb: 978-1-032-89199-6: **£130**
eBook: 978-1-003-54167-7

* For full contents and more information, visit: www.routledge.com/9781032886725

Cyberology

An Optimized Approach to the Cyber-World



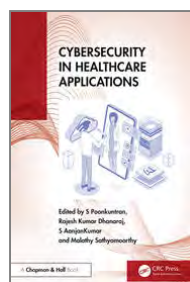
Edited by Mohd. Shahid Husain University of Technology & Applied Sciences, Oman, **Mohammad Faisal** Integral University, India, **Halima Sadia** Integral University, India, **Tasneem Ahmed** Integral University, India, **Saurabh Shukla, Adil Kaleem**

This book provides an insightful examination of cybersecurity threats and their implications across various sectors, including healthcare, agriculture, and government. It covers fundamental concepts in cyber security, including cybercrime laws, cyberbullying, and emerging technologies. It discusses challenges in detecting and preventing cyber threats and analyzes trends in cyber warfare and resilience. This book serves as a resource for understanding the complex relationship between technology and society, equipping readers with the knowledge needed to navigate the evolving cyber landscape. It is for scholars, students and professionals interested in cyber security.

Chapman & Hall
March 2025:424
Hb: 978-1-032-52668-3: **£145**

* For full contents and more information, visit: www.routledge.com/9781032526683

Cybersecurity in Healthcare Applications



Edited by S Poonkuntran VIT Bhopal University, **Rajesh Kumar Dhanaraj, S AanjanKumar** VIT Bhopal University, India, **Malathy Sathymoorthy** KPR Institute of Engineering and Technology, India

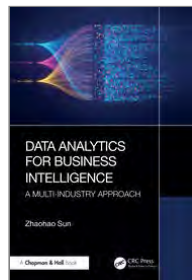
Explores the critical challenge of securing sensitive medical data in the face of rising cyber threats. Examines how artificial intelligence can be leveraged to detect and mitigate cyber threats in healthcare environments. Integrates advanced technologies: AI security applications, blockchain techniques, cryptanalysis, 5G security to strengthen protection of healthcare systems.

Chapman & Hall
February 2025:334
Hb: 978-1-032-70819-5: **£150**

* For full contents and more information, visit: www.routledge.com/9781032708195

Data Analytics for Business Intelligence

A Multi-Industry Approach



Zhaohao Sun PNG University of Technology

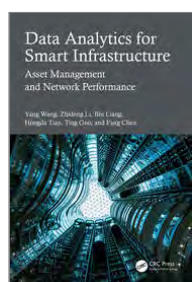
The primary aim of this book is to convey the theories and technologies of data, analytics, and intelligence with applications to readers based on systematic generalization and specialization. Sun uses the Boolean structure to deconstruct all books and papers related to data, analytics, intelligence and reorganize them to reshape the world of big data. This book provides original insights on sharing computing, insight computing, platform computing, a calculus of intelligent analytics and intelligent business analytics, data analyticizing and DDPP computing. A useful resource with multi-industry applications for scientists, engineers, data analysts, and university students.

Chapman & Hall
December 2024:474
Pb: 978-1-032-58532-1: **£54.99**
Hb: 978-1-032-58533-8: **£130**

* For full contents and more information, visit: www.routledge.com/9781032585321

Data Analytics for Smart Infrastructure

Asset Management and Network Performance



Yang Wang, Zhidong Li, Bin Liang, Hongda Tian, Ting Guo, Fang Chen

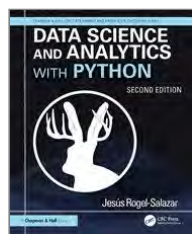
This book presents, for the first time, data analytics for smart infrastructures. The authors draw on over a decade's experience working with industry and demonstrating the capabilities of data analytics for infrastructure and asset management. This groundbreaking work will be essential reading for those studying and practicing analytics in the context of smart infrastructure.

CRC Press
January 2025:184
Pb: 978-1-032-75415-4: **£44.99**
Hb: 978-1-032-75416-1: **£59.99**

* For full contents and more information, visit: www.routledge.com/9781032754154

2ND EDITION

Data Science and Analytics with Python



Jesus Rogel-Salazar Imperial College London, UK

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

Since the first edition, we have witnessed an unprecedented explosion in the interest and development within the fields of Artificial Intelligence and Machine Learning. This surge has led to the widespread adoption of the book, not just among business practitioners, but also by universities as a key textbook. Designed as a practical companion for data analysts and budding data scientists, this book assumes a working knowledge of programming and statistical modelling but aims to guide readers deeper into the wonders of data analytics and machine learning. Whether revisiting fundamental concepts or diving into new, advanced topics, this book offers something valuable for every reader.

Chapman & Hall
February 2025:512
Pb: 978-1-032-77249-3: **£44.99**
Hb: 978-1-032-77252-3: **£120**

* For full contents and more information, visit: www.routledge.com/9781032772493

Deep Learning in Diabetes Mellitus Detection and Diagnosis



Edited by Jyotismita Chaki, Marcin Wozniak Silesian University of Technology, Poland

This book focuses on deep learning-based approaches in the field of Diabetes Mellitus detection and diagnosis, including preprocessing techniques which are an essential part of this subject. This is the first book of its kind to cover deep learning-based approaches in the specific field of Diabetes Mellitus. The book includes a detailed introductory overview as well as chapters on current applications, preprocessing of data using deep learning, deep learning techniques, complexity, challenges and future directions. It will be of great interest to researchers and professionals working on Diabetes Mellitus as well as general medical applications of machine learning.

CRC Press
January 2025:202
Hb: 978-1-032-64700-5: **£115**

* For full contents and more information, visit: www.routledge.com/9781032647005

Demystifying 101 Essential Artificial Intelligence Terms for Everyone



Richard Khan

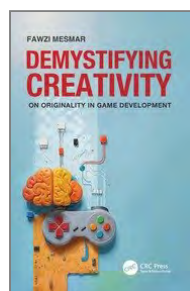
In a world increasingly powered by AI, understanding these technologies is no longer a luxury but a necessity. This book stands as your guide through the complex terrain of artificial intelligence terms, transforming the intricate into the accessible. From the foundational concepts of "Artificial Intelligence" and "Machine Learning" to the cutting-edge innovations of "ChatGPT" and "DALL-E," this glossary is designed to enlighten, inspire, and empower. Whether you're a student embarking on your studies, a professional seeking to broaden your horizon, or a curious mind eager to understand the technologies shaping our future, The AI Glossary is your indispensable companion.

CRC Press
February 2025:248
Pb: 978-1-032-98734-7: **£22.99**
Hb: 978-1-032-98738-5: **£59.99**

* For full contents and more information, visit: www.routledge.com/9781032987347

Demystifying Creativity

On Originality in Game Development



Fawzi Mesmar

This book is a study of the psychology, neuroscience and philosophy of creativity, originality and inspiration viewed from the lens of a seasoned game developer. It introduces the concept of creative sobriety, a practice that advocates better understanding our own sources of inspiration so that we can intellectually drive our creative voice closer to originality. Written by award-winning Creative Director and Game Designer Fawzi Mesmar, this book will be of great interest to students of game design and creative professionals working within industry, as well as those looking to learn more about the creative process.

CRC Press
December 2024:200
Pb: 978-1-032-20003-3: **£36.99**
Hb: 978-1-032-20005-7: **£94.99**
eBook: 978-1-003-26183-4

* For full contents and more information, visit: www.routledge.com/9781032200033

Designing Interactions with Robots

Methods and Perspectives



Edited by **Maria Luce Lupetti** Politecnico di Torino, Dept. of Architecture & Design, Italy, **Cristina Zaga**, **Nazli Cila**, **Selma Šabanović**, **Malte F. Jung**

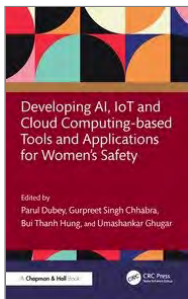
Series: *Chapman & Hall/CRC Artificial Intelligence and Robotics Series*

While engineering and social science perspectives on designing human-robot interactions are readily available, the body of knowledge and practices related to design, specifically interaction design, often remain tacit. This book fills an important resource gap in the human-robot interaction (HRI) community, and acts as a guide to navigating design-specific methods, tools, and techniques. With contributions from the field's leading experts and rising pioneers, this collection presents state of the art knowledge and a range of design methods, tools, and techniques which cover the various phases of an HRI project.

Chapman & Hall
November 2024:204
Pb: 978-1-032-43027-0: **£44.99**
Hb: 978-1-032-44212-9: **£110**
eBook: 978-1-003-37102-1

* For full contents and more information, visit: www.routledge.com/9781032430270

Developing AI, IoT and Cloud Computing-based Tools and Applications for Women's Safety



Edited by **Parul Dubey**, **Gurpreet Singh Chhabra** GITAM Deemed to be University, India, **Bui Thanh Hung** Industrial University of Ho Chi Minh city, Vietnam, **Umashankar Ghugar** OP JINDAL UNIVERSITY RAIGARH, India

In a world increasingly driven by technology, this book explores the intersection of artificial intelligence (AI), IoT and Cloud Computing and women's safety, highlighting the transformative potential of technology in safeguarding women's well-being in the physical and the digital world. As the safety and security industry embraces technological advancements, the need for inclusive and gender-centric solutions has become increasingly evident. This reference book delves into this critical area, showcasing the development of AI, IoT, and Cloud applications specifically tailored to address the unique safety challenges faced by women.

Chapman & Hall
December 2024:274
Hb: 978-1-032-88455-4: **£145**
eBook: 978-1-003-53817-2

* For full contents and more information, visit: www.routledge.com/9781032884554

Digital Farming and Smart Agriculture for Sustainable Future



Edited by **Febin Daya J. L.** VIT, India, **S. Graceline Jasmine** VIT, India, **Utku Kose**

This book presents the impact and scope of Internet of Things (IoT), Artificial Intelligence (AI), and Machine Learning (ML) in the growth of intelligent digital farming and smart agriculture. It offers insights into advanced analytics, prognostics capabilities, and the development of economic models for creating innovative software applications and tools necessary for developing IoT devices for precision agriculture. It explores the latest advancements in these fields and their applications, gaining valuable insights into the future of digital farming.

Chapman & Hall
February 2025:304
Hb: 978-1-032-76588-4: **£145**

* For full contents and more information, visit: www.routledge.com/9781032765884

Digital Product Management

Strategic Planning and Market Opportunity



Boon Kee Lee

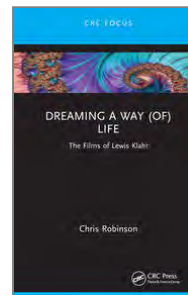
This book is designed to equip readers with essential knowledge and skills in digital product management. It covers strategic planning and market opportunity, offering a clear and accessible guide to navigating the complex world of digital product management in today's fast-changing environment. This book is especially useful for product managers, entrepreneurs, and business leaders who are keen to refine their strategic planning skills. It offers actionable advice and frameworks that can be applied across various industries, empowering readers to successfully manage digital products and drive business growth.

CRC Press
March 2025:288
Pb: 978-1-032-77670-5: **£44.99**
Hb: 978-1-032-77671-2: **£59.99**

* For full contents and more information, visit: www.routledge.com/9781032776705

Dreaming a way (of) Life

The Films of Lewis Klahr



Chris Robinson

Series: *Focus Animation*

Since his debut in the 1980s, Lewis Klahr has built a mesmerizing and influential body of work, establishing himself as one of the foremost collage animators—or, as he prefers, a “re-animator.” Through insightful analysis, Robinson unveils the depth and complexity of Klahr’s artistic vision, guiding readers into the magic and mystery of his cinematic universe. Key Features: First in-depth study of the work of Lewis Klahr Mixed biography with philosophical influenced approach to the themes of his work Introduction of important experimental and independent animation figure that shows readers animation beyond typical industry fare.

CRC Press
February 2025:136
Hb: 978-1-032-53719-1: **£49.99**

* For full contents and more information, visit: www.routledge.com/9781032537191

Effective Serious Games Development

A Step-by-step Guide for Beginners



Philipp Busch Mind Games GmbH, Mainz, Rheinland-Pfalz, Germany 55116

This book showcases the entire lifecycle of a serious games project and guides the reader through the different phases step by step. It follows a narrative approach, telling the story of a young game developer in a fictitious near-future-setting who overcomes the challenges of a typical development process. The narrative is enriched by 15 short contributions from multinational experts on relevant topics for the development process of serious games. The book will appeal to students of game development but also project managers who want to gain a better overview of the process as a whole and learn about tools and frameworks they apply in their own context right away.

CRC Press
May 2025:248
Pb: 978-1-032-61013-9: **£44.99**
Hb: 978-1-032-61014-6: **£120**

* For full contents and more information, visit: www.routledge.com/9781032610139

Embedded Artificial Intelligence

Real-Life Applications and Case Studies



Edited by **Arpita Nath Boruah** Assam Down Town University, India, **Mrinal Goswami** Assam Down Town University, India, **Manoj Kumar** University of Wollongong in Dubai, UAE, **Octavio Loyola-González** Stratesys, Madrid

This book explores the role of Embedded AI in revolutionising industries such as healthcare, transportation, manufacturing, retail. It begins by introducing the fundamentals of AI and embedded systems and specific challenges and opportunities. A key focus of the book is developing efficient and effective algorithms and models for embedded AI systems, as embedded systems have limited processing power, memory, and storage. It discusses a variety of techniques for optimising algorithms and models for embedded systems, including hardware acceleration, model compression, and quantisation.

Chapman & Hall
February 2025:320
Hb: 978-1-032-76660-7: £145

* For full contents and more information, visit: www.routledge.com/9781032766607

Embedded System for Biomedical Application



Edited by **Rishabha Malviya** Galgotias Uni., **Selcan Karakus**, **Mukesh Roy**
Series: High-Performance Computing for Smart Healthcare

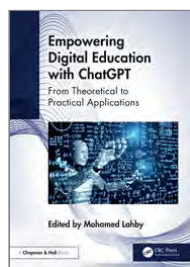
This book is an essential guide to the constantly changing environment of embedded systems in healthcare in a world where the convergence of technology and healthcare is becoming increasingly important. It further explains different scenarios corresponding to the latest technologies in the healthcare system for early diagnosis, enhanced treatment, and cure of diseases, including remote patient monitoring, cardiac monitoring, deep learning for remediation.

Chapman & Hall
February 2025:360
Hb: 978-1-032-83191-6: £145

* For full contents and more information, visit: www.routledge.com/9781032831916

Empowering Digital Education with ChatGPT

From Theoretical to Practical Applications



Edited by **Mohamed Lahby**

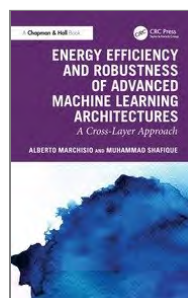
This book explores the transformative potential of the ChatGPT tool within education, shedding light on the opportunities that arise through the integration of the ChatGPT tool into various aspects of the learning process. It serves as a platform for the community to share cutting-edge research ideas concerning the use of the ChatGPT tool in digital education. Readers will discover how the ChatGPT tool can enhance student engagement, foster personalized learning experiences, facilitate intelligent tutoring systems, support virtual classroom interactions, and revolutionize assessment and feedback mechanisms.

Chapman & Hall
November 2024:302
Hb: 978-1-032-71608-4: £110
eBook: 978-1-032-71635-0

* For full contents and more information, visit: www.routledge.com/9781032716084

Energy Efficiency and Robustness of Advanced Machine Learning Architectures

A Cross-Layer Approach



Alberto Marchisio, **Muhammad Shafique**

This book tackles these challenges by exploiting the unique features of advanced ML models and investigates cross-layer concepts and techniques to engage both hardware and software-level methods to build robust and energy-efficient architectures for these advanced ML networks. More specifically, this book improves the energy efficiency of complex models like CapsNets, through a specialized flow of hardware-level designs and software-level optimizations exploiting the application-driven knowledge of these systems and the error tolerance through approximations and quantization.

Chapman & Hall
November 2024:360
Hb: 978-1-032-85550-9: £110
eBook: 978-1-003-53045-9

* For full contents and more information, visit: www.routledge.com/9781032855509

2ND EDITION

Ensemble Methods

Foundations and Algorithms



Zhi-Hua Zhou Nanjing University, China

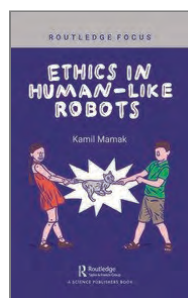
Series: Chapman & Hall/CRC Machine Learning & Pattern Recognition

Ensemble methods that train multiple learners and then combine them to use, with Boosting and Bagging as representatives, are well-known machine learning approaches. It has become common sense that an ensemble is usually significantly more accurate than a single learner, and ensemble methods have already achieved great success in various real-world tasks. This edition expands on the previous one with additional content to reflect the significant advances in the field, and is written in a concise but comprehensive style to be approachable to readers new to the subject.

Chapman & Hall
February 2025:363
Hb: 978-1-032-96060-9: £59.99

* For full contents and more information, visit: www.routledge.com/9781032960609

Ethics in Human-like Robots



Kamil Mamak

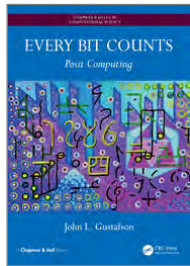
The book focuses on the ethical issues of human likeness of robots and human tendency to anthropomorphize. It is built on the assumption that design choices are not neutral, and they need to be discussed to align robots with human values. With robots operating in the physical world, they bring ideas and risks that should be addressed before widespread deployment. The book reviews specific issues and provides suggestions and recommendations for improving robots to serve humans better. It draws on literature from Human-Robot Interactions, ethics of AI and robotics, and the philosophy of technology.

Routledge
November 2024:140
Hb: 978-1-032-65623-6: £49.99
eBook: 978-1-032-67102-4

* For full contents and more information, visit: www.routledge.com/9781032656236

Every Bit Counts

Posit Computing



John L. Gustafson CTO, Ceranovo, Inc. Pleasanton, California, USA

Series: *Chapman & Hall/CRC Computational Science*

Written by one of the foremost experts in high-performance computing and the inventor of Gustafson's law, *Every Bit Counts: Posit Computing* explains the foundations of a new way for computers to calculate that saves time, storage, energy, and power by packing more information into every bit. Starting with the simplest form of the idea, the chapters gradually add concepts according to stated mathematical and engineering design principles, building a robust tool kit for creating application-specific number systems. There is also a thorough explanation of the Posit™ Standard (2022), with motivations and examples that expand on that terse 12-page document.

Chapman & Hall
November 2024:464
Pb: 978-1-032-73805-5: **£44.99**
Hb: 978-1-032-73806-2: **£120**

* For full contents and more information, visit: www.routledge.com/9781032738055

Evolution and Advances in Computing Technologies for Industry 6.0

Technology, Practices, and Challenges



Edited by **C. Kishor Kumar Reddy** Stanley Col of Eng and Tech for Women, India, **Srinath Doss** Botho University, Botswana, **Surbhi Bhatia Khan** King Faisal University, Saudi Arabia, **Abdulmajeed Alqhatani**

This comprehensive review explores the evolution from Industry 4.0 to the cutting-edge Industry 6.0, offering insights into the integration of next-generation computing, including IoT, AI, machine learning, deep learning, edge computing and quantum computing.

CRC Press
December 2024:394
Hb: 978-1-032-82304-1: **£150**
eBook: 978-1-003-50393-4

* For full contents and more information, visit: www.routledge.com/9781032823041

2ND EDITION

Face It

A Visual Reference for Multi-Ethnic Facial Modeling



Patricia Beckmann-Wells, **Scott Wells**

Face It provides you with the resources that you need to ensure an accurate character model. By examining the skulls of people of different ages, ethnicities, and geographical areas, authors Patricia Beckmann-Wells and Scott Wells showcase the intricacies of the human head and face and show you how to apply that to your models. The Second Edition features new and updated tutorials as well as a new chapter discussing facial variation over time.

CRC Press
April 2025:500
Pb: 978-1-032-76444-3: **£44.99**
Hb: 978-1-032-77741-2: **£115**

* For full contents and more information, visit: www.routledge.com/9781032764443

Floating Point Numerics for Games and Simulations



Nima Badizadegan

Floating point is ubiquitous in computers, where it is the default way to represent non-integer numbers. However, few people understand it. By the end of the book, you will be able to understand how to work with floating point in a practical sense, from tracking down and preventing error in small calculations to choosing numerical building blocks for complex 3D simulations.

CRC Press
May 2025:224
Pb: 978-1-032-93355-9: **£52.99**
Hb: 978-1-032-93356-6: **£130**

* For full contents and more information, visit: www.routledge.com/9781032933559

Foundations of AI and Robotics

Two Volume Set



Wendell H. Chun

Artificial Intelligence (AI) is a complicated science that combines philosophy, cognitive psychology, neuroscience, mathematics and logic (logicism), economics, computer science, computability, and software. Meanwhile, robotics is an engineering field that compliments AI. There can be situations where AI can function without a robot (e.g. Turing Test) and robotics without AI (e.g. teleoperation), but in many cases, each technology requires each other to exhibit a complete system: having "smart" robots and AI being able to control its interactions (i.e., effectors) with its environment.

Chapman & Hall
December 2026:680
Pb: 978-1-032-67319-6: **£89.99**
Hb: 978-1-032-67317-2: **£140**

* For full contents and more information, visit: www.routledge.com/9781032673196

Foundations of Artificial Intelligence and Robotics

Volume 1 A Holistic View



Wendell H. Chun

Artificial Intelligence (AI) is a complicated science that combines philosophy, cognitive psychology, neuroscience, mathematics and logic (logicism), economics, computer science, computability, and software. Meanwhile, robotics is an engineering field that compliments AI. There can be situations where AI can function without a robot (e.g. Turing Test) and robotics without AI (e.g. teleoperation), but in many cases, each technology requires each other to exhibit a complete system: having "smart" robots and AI being able to control its interactions (i.e., effectors) with its environment.

Chapman & Hall
October 2026:324
Pb: 978-1-032-67312-7: **£44.99**
Hb: 978-1-032-67311-0: **£89.99**
eBook: 978-1-032-67313-4

* For full contents and more information, visit: www.routledge.com/9781032673127

Foundations of Artificial Intelligence and Robotics

Volume 2 A Historical Background



Wendell H. Chun

Artificial Intelligence (AI) is a complicated science that combines philosophy, cognitive psychology, neuroscience, mathematics and logic (logicism), economics, computer science, computability, and software. Meanwhile, robotics is an engineering field that compliments AI. There can be situations where AI can function without a robot (e.g. Turing Test) and robotics without AI (e.g. teleoperation), but in many cases, each technology requires each other to exhibit a complete system: having "smart" robots and AI being able to control its interactions (i.e., effectors) with its environment.

Chapman & Hall
December 2026:281
Pb: 978-1-032-67315-8: **£44.99**
Hb: 978-1-032-67314-1: **£89.99**

* For full contents and more information, visit: www.routledge.com/9781032673158

Fundamental Level Design and Analysis

A to B



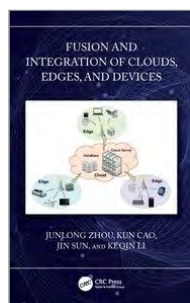
Michael Beardwood Staffordshire Univ., UK

This book provides a starting point for anyone interested in level and game design with zero prior knowledge. By analysing existing games and levels it introduces good design ideas and works towards communicating them in either design or practical methods. It covers a multitude of design standards as well as showcasing relatively easy methods of communicating ideas to an industry standard. This book will be suitable for undergraduate students studying on game design courses, as well as those looking to learn the basics of level design.

CRC Press
December 2024:188
Pb: 978-1-032-52870-0: **£44.99**
Hb: 978-1-032-52871-7: **£120**
eBook: 978-1-003-40884-0

* For full contents and more information, visit: www.routledge.com/9781032528700

Fusion and Integration of Clouds, Edges, and Devices



Junlong Zhou Nanjing University of Science and Technology, China, **Kun Cao** Jinan University, China, **Jin Sun** Nanjing University of Science and Technology, China, **Keqin Li**

This book provides an in-depth examination of recent research advances in cloud-edge-end computing, covering theory, technologies, architectures, methods, applications, and future research directions. It aims to present state-of-the-art models and optimization methods for fusing and integrating clouds, edges, and devices. The intended readers of this book are researchers, undergraduate and graduate students, and engineers interested in cloud computing, edge computing, and the Internet of Things. The knowledge of this book will enrich our readers to be at the forefront of cloud-edge-end computing.

CRC Press
December 2024:228
Hb: 978-1-032-88457-8: **£59.99**
eBook: 978-1-003-54028-1

* For full contents and more information, visit: www.routledge.com/9781032884578

Game AI Uncovered

Volume Three



Edited by Paul Roberts

Game AI Uncovered: Volume Three continues the series with another collection of chapters from 18 of the top game AI professionals and researchers, from around the world. Each chapter includes ideas, tips and tricks that were used in the development of video games. Contained within this volume are insights that cover a host of different areas within game AI, including vehicle AI, simulating social norms, AI spawning fundamentals, pathfinding, creation of characters using components, and much more. Beginners to the area of game AI, and professional developers, will find wealth of knowledge for developing of their own games and spark ideas for new approaches.

CRC Press
January 2025:246
Pb: 978-1-032-53256-1: **£44.99**
Hb: 978-1-032-53257-8: **£120**

* For full contents and more information, visit: www.routledge.com/9781032532561

Game Design Deep Dive

Real-Time Strategy



Joshua Bycer

Series: Game Design Deep Dive

Game Design Deep Dive: Real-Time Strategy, focuses on what was once one of the most popular genres in the world and the one that truly kicked off the rise of esports. It has seen the most fundamental changes as a genre than anything else, and Game Design Critic Josh Bycer will talk about the history and where it stands today with regards to its relevancy in the market.

CRC Press
December 2024:176
Pb: 978-1-032-75697-4: **£44.99**
Hb: 978-1-032-76040-7: **£115**
eBook: 978-1-003-47676-4

* For full contents and more information, visit: www.routledge.com/9781032756974

Game Narrative Design and UX Fundamentals

Tools for Player-Centric Storytelling



Abigail Rindo

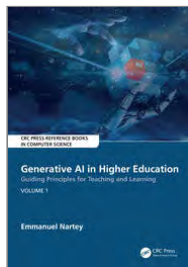
Game narrative and UX share a deep, interconnected relationship. This book explores the connections between narrative and UX to develop a framework for creating player centric stories in games by covering best practices in both crafts using a unified language. This is very much intended to be a reference book emphasizing fundamentals, but also offers a deep dive into the best practices and methodologies. It will appeal to aspiring and current game narrative designers, UX designers, researchers, writers, and developers, students at the graduate level, or anyone interested in expanding their understanding of player centricity or world building.

CRC Press
December 2024:246
Pb: 978-1-032-37253-2: **£44.99**
Hb: 978-1-032-37998-2: **£120**
eBook: 978-1-003-34297-7

* For full contents and more information, visit: www.routledge.com/9781032372532

Generative AI in Higher Education: Guiding Principles for Teaching and Learning

Volume 1



Emmanuel K Nartey

Series: CRC Press Reference Books in Computer Science

Higher education institutions have varied responses to Generative AI (GenAI): some see it as a threat to academic integrity and ban its use, while others view it as an innovative tool and provide guidelines for ethical use. This book emphasizes that the issue isn't with GenAI itself, like ChatGPT, but with how we choose to interact with it.

CRC Press

February 2025: 272

Hb: 978-1-032-91126-7: £79.99

* For full contents and more information, visit: www.routledge.com/9781032911267

Get Into Game Dev

Tech Interview Tactics



Matthew Ventures

Get Into Game Dev: Tech Interview Tactics is a crash-course on how to pass a game development technical interview. It's designed to guide intermediate and experienced coders through the depth and rigor necessary to land some of the most highly sought-after roles within interactive media. Topics include 3D maths, programming fundamentals, and software design patterns. The author provides high quality instruction and practice problems based on his experience as a professional instructor and developer.

CRC Press

March 2025: 176

Pb: 978-1-032-93359-7: £44.99

Hb: 978-1-032-93362-7: £115

* For full contents and more information, visit: www.routledge.com/9781032933597

Governing the Future

Digitalization, Artificial Intelligence, Dataism



Edited by **Henning Glaser** German-Southeast Asian Center of Excellence for Public Policy and Good Governance (CPG), Bangkok, Thailand, **Pindar Wong**

Series: CRC Press Reference Books in Computer Science

This volume, drawing on diverse expertise from scholars and practitioners, investigates the challenges, effects, and governance of this transformative period in civilization. It offers insights from various fields such as philosophy, international law, sociology, cultural studies, economics, and technology.

CRC Press

December 2024: 176

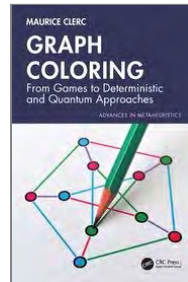
Pb: 978-1-032-11637-2: £45.99

Hb: 978-1-032-12838-2: £120

* For full contents and more information, visit: www.routledge.com/9781032116372

Graph Coloring

From Games to Deterministic and Quantum Approaches



Maurice Clerc

Series: Advances in Metaheuristics

Emphasis is placed on deterministic, guaranteed and non-guaranteed methods. Stochastic methods are then just mentioned because already widely described in previous publications. The study then details a general quantum algorithm of polynomial complexity. A final chapter provides elements of reflection on diplomatic algorithms that, for the problem of coloring under resource constraints, seek a compromise minimizing frustrations. The appendix includes some mathematical additions and the source codes of the main algorithms presented, in particular the one of the quantum method.

CRC Press

December 2024: 141

Hb: 978-1-032-73751-5: £68.99

* For full contents and more information, visit: www.routledge.com/9781032737515

Graph Learning Techniques



Baoling Shan, **Xin Yuan**, **Wei Ni** Principal Scientist at CSIRO, Australia, **Ren Ping Liu**, **Eryk Dutkiewicz**

This comprehensive guide addresses key challenges at the intersection of data science, graph learning, and privacy preservation. It includes practical insights into brain network analysis and the dynamics of COVID-19 spread, a solid understanding of graphs by exploring different graph representations and the latest advancements in graph learning techniques. The book also offers insights into emerging trends, potential challenges, and the evolving landscape of privacy-preserving graph learning. A valuable reference for advance undergraduate and postgraduate students in Network Analysis, Privacy and Security in Data Analytics, Graph Theory, and Applications in Healthcare.

CRC Press

February 2025: 200

Pb: 978-1-032-85112-9: £44.99

Hb: 978-1-032-85113-6: £82.99

* For full contents and more information, visit: www.routledge.com/9781032851129

Healthcare-Driven Intelligent Computing Paradigms to Secure Futuristic Smart Cities



Edited by **Diptendu Sinha Roy**, **Mir Wajahat Hussain** Alliance University, India, **K. Hemant Kumar Reddy** VIT-AP UNIVERSITY, India, **Deepak Gupta** Galgotias University, India

Series: High-Performance Computing for Smart Healthcare

This book presents the applications of the healthcare sector in the context of futuristic smart cities. It explores various applications like the advancements in computational and network models along with the innovative paradigms for an able healthcare model. The book discusses the state-of-the-art intelligent network and computing paradigms and machine learning models for robust healthcare. It is a pertinent resource on how cutting-edge technologies can be integrated to aptly provide solutions for the numerous challenges faced by the healthcare industry. This book is for researchers and entrepreneurs working on healthcare-driven intelligent computing paradigms.

Chapman & Hall

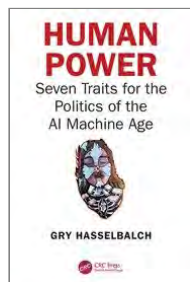
December 2024: 408

Hb: 978-1-032-62689-5: £160

* For full contents and more information, visit: www.routledge.com/9781032626895

Human Power

Seven Traits for the Politics of the AI Machine Age



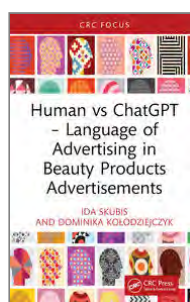
Gry Hasselbalch

This book explores a humanist approach to technology politics for the 21st century, using seven unique human traits as a foundation to design alternative socio-technical infrastructures that enhance human power. The book challenges technological determinism and proposes a framework for understanding human power in the digital age, emphasizing the importance of reflection, empathy, care, and solidarity in decision-making.

CRC Press
March 2025:272
Pb: 978-1-032-69816-8: **£29.99**
Hb: 978-1-032-86513-3: **£115**

* For full contents and more information, visit: www.routledge.com/9781032698168

Human vs ChatGPT – Language of Advertising in Beauty Products Advertisements



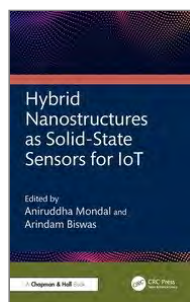
Ida Skubis , Dominika Kołodziejczyk

This scholarly book provides a comprehensive analysis of advertising language, focusing on its use in beauty product advertisements and comparing those created by humans with those generated by ChatGPT versions 3.5 and 4.0. The book is structured into two primary sections: a theoretical part and an analytical part. It takes an in-depth look at the language used in advertising and its psychological effects, providing valuable information about the current trends and future developments in marketing and consumer engagement.

CRC Press
November 2024:148
Hb: 978-1-032-93413-6: **£48.99**
eBook: 978-1-003-56644-1

* For full contents and more information, visit: www.routledge.com/9781032934136

Hybrid Nanostructures as Solid-State Sensors for IoT



Edited by **Aniruddha Mondal** NIT, Durgapur, India,
Arindam Biswas Kazi Nazrul Uni.

The book provides an in-depth discussion of various Hybrid Nanostructures as solid-state sensors in the context of the Internet of Things (IoT). It explains the vital role that sensors play in IoT to aid in discovering what possibilities ought to be addressed to make the data more meaningful. The book highlights the applicability of biosensing field effect transistor (FET) technology with a specific emphasis on the progress being made in integrating existing FET technology and nanotechnology, using semiconductor nanowires and organic structures.

Chapman & Hall
December 2024:208
Hb: 978-1-032-71403-5: **£130**
eBook: 978-1-003-46421-1

* For full contents and more information, visit: www.routledge.com/9781032714035

Image Processing and Machine Learning



Erik Cuevas , Alma Nayeli Rodríguez

Series: (ISC)2 Press

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

Chapman & Hall
November 2024:462
Hb: 978-1-032-66129-2: **£140**

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

Industry Innovation in the Era of Artificial Intelligence

The AI Compass



Xiaomei Wang

Series: CRC Press Women in AI Series

This book explores the multifaceted nature of AI implementation in modern business strategy, focusing on its present and future impact on various sectors. It will spark fresh thinking and provide a driving force for global industrial innovation. Xiaomei Wang draws on over 20 years of experience in data analytics and AI to offer unique insights and a rich collection of compelling industry case studies. Designed for business leaders, tech enthusiasts, and policymakers alike, this book is not just a manual for understanding AI, but a roadmap for harnessing its potential. It empowers readers to embrace AI as a catalyst for innovation and sustainable growth in their respective fields.

Chapman & Hall
April 2025:256
Pb: 978-1-032-83225-8: **£44.99**
Hb: 978-1-032-83239-5: **£115**

* For full contents and more information, visit: www.routledge.com/9781032832258

Integration of Cloud Computing and IoT

Trends, Case Studies and Applications



Edited by **Prabh Deep Singh , Mohit Angurala**

Series: Emerging Technologies

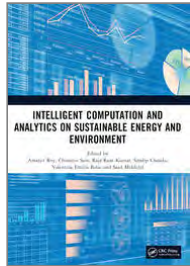
This book presents cutting-edge research, advanced techniques, and practical applications of the integration of Cloud Computing and IoT. It explores the practical challenges associated with the development and deployment of Cloud Computing and IoT-based solutions, including security, privacy, and interoperability issues. It includes various case studies, including Smart Cities, Network Security, Healthcare, Smart Urban Sensing, Agriculture, Mining, Railways, and Crime Investigations. It offers in-depth insights, developments, and practical applications, showcasing helpful tools and techniques in IoT and Cloud Computing.

Chapman & Hall
December 2024:524
Hb: 978-1-032-64741-8: **£145**

* For full contents and more information, visit: www.routledge.com/9781032647418

Intelligent Computation and Analytics on Sustainable Energy and Environment

Proceedings of the 1st International Conference on Intelligent Computation and Analytics on Sustainable Energy and Environment



Edited by **Amarjit Roy**, **Chiranjit Sain**, **Raja Ram Kumar**, **Sandip Chanda**, **Valentina Emilia Balas**, **Saad Mekhilef**

Series: *Conference Proceedings Series on Intelligent Systems, Data Engineering, and Optimization*

The 1st International Conference on Intelligent Computation and Analytics on Sustainable Energy (ICICASEE 2023) was held at Ghani Khan Choudhury Institute of Engineering & Technology (GKCIET), Malda, West Bengal, India. GKCIET is a premier engineering institute located in Malda, West Bengal, India. Being established in 2010, at present the institute offers B.Tech and Diploma Civil Engineering, Mechanical Engineering, Electrical Engineering, Computer Science and engineering and Food processing technology.

CRC Press
November 2024:489
Pb: 978-1-032-88890-3: £44.99
eBook: 978-1-003-54019-9

* For full contents and more information, visit: www.routledge.com/9781032888903

Interactive Media with Next-Gen Technologies and Their Usability Evaluation



Edited by **Chhaya Santosh Gosavi** MKSS's CCOEW, India, **Ganesh Bhutkar** Vishwakarma Institute of Technology, India, **Abhijit Banubakode** MET INSTITUTE OF COMPUTER SCIENCE, India, **Emmanuel Eilu** Uganda Christian University

Interactive media are a human-machine interface that allows people to connect with each other by making them active participants in the media they consume through text, graphics, audio and video. This book presents the challenges and opportunities presented by emerging media technologies to explore usability evaluation. It covers the current trends in interactive media technologies such as, Social Media, Dark Patterns, Internet of Things (IoT), Android Development, Assistive Technologies and Augmented Reality (AR) / Virtual Reality (VR).

Chapman & Hall
November 2024:320
Hb: 978-1-032-66479-8: £145
eBook: 978-1-032-66482-8

* For full contents and more information, visit: www.routledge.com/9781032664798

Internet of Things and Big Data Analytics for a Green Environment



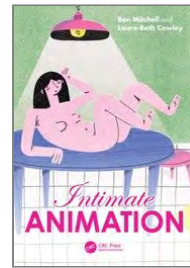
Edited by **Yousef Farhaoui** Moulay Ismail University, Morocco, **Bharat Bhushan** Sharda University, India, **Nidhi Sindhwani** Amity University, India, **Rohit Anand** Pant Engineering College, India, **Agbotiname Lucky Imoize** Department of Electrical and Electronics Engineering, Faculty of Engineering, University of Lagos, **Anshul Verma** Banaras Hindu University, India

This book studies the evolution of sustainable green smart cities and demonstrates solutions for green environmental issues using modern industrial IoT solutions. It is a ready reference with guidelines and a conceptual framework for context-aware product development and research in the IoT paradigm and Big Data Analytics for a Green Environment.

Chapman & Hall
November 2024:358
Hb: 978-1-032-64982-5: £105
eBook: 978-1-032-65683-0

* For full contents and more information, visit: www.routledge.com/9781032649825

Intimate Animation



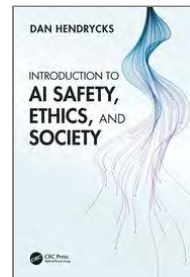
Ben Mitchell, **Laura-Beth Cowley**

Through research and firsthand interviews with industry trailblazers as well as newer voices, this book looks deeply at the role animation has played in presenting elaborate and complex concepts relating to love and sexuality. Exploring the role animation has played in sex education, self-discovery, the body, lust and love, as well as how the medium can be used to visually represent emotions, feelings and concepts not easily described in words nor depicted through live-action filmmaking, this is the ideal book for professional animators, filmmakers, enthusiasts, researchers, academic and students of animation and film studies interested in the themes of love and sexuality.

CRC Press
March 2025:208
Pb: 978-1-032-54150-1: £44.99
Hb: 978-1-032-54169-3: £120

* For full contents and more information, visit: www.routledge.com/9781032541501

Introduction to AI Safety, Ethics, and Society



Dan Hendrycks

Introduction to AI Safety, Ethics, and Society is a comprehensive and interdisciplinary introduction to AI Safety. As AI threatens to transform society, it becomes increasingly more important to understand the risks that AI poses, and to learn what measures we can take to mitigate them. Leveraging insights from a spectrum of academic disciplines, this book sheds light on the risks from AI, and breaks down these risks into four primary categories: malicious use, rogue AIs, AI races, and organizational risks.

CRC Press
December 2024:562
Hb: 978-1-032-86992-6: £82.99

* For full contents and more information, visit: www.routledge.com/9781032869926

Introduction to Classifier Performance Analysis with R



Sutaip L.C. Saw

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

Introduction to Classifier Performance Analysis with R provides an introductory account of commonly used CPA techniques for binary and multiclass problems, and use of the R software system to accomplish the analysis. Coverage draws on the extensive literature available on the subject, including descriptive and inferential approaches to CPA. Exercises are included at the end of each chapter to reinforce learning.

Chapman & Hall
December 2024:222
Pb: 978-1-032-85010-8: £48.99
Hb: 978-1-032-85562-2: £125
eBook: 978-1-003-51867-9

* For full contents and more information, visit: www.routledge.com/9781032850108

IoT and Machine Learning for Smart Applications



Edited by **G. Vennira Selvi** Presidency University, Bengaluru, **T. Ganesh Kumar** Galgotias Uni., **M. Prasad** VIT, India, **Raju Hajare** BMS Institute of Technology and Management, India, **Priti Rishi** SRMIST, India

This book provides an illustration of the various methods and structures that are utilized in machine learning to make use of data that is generated by IoT devices. Numerous industries utilize machine learning, specifically Machine learning-as-a-Service (MLaaS) to realize IoT to its full potential. On the application of machine learning to smart IoT applications, it becomes easier to observe, methodically analyze, and process a large amount of data to be put to use in various fields.

Chapman & Hall
March 2025:216
Hb: 978-1-032-62108-1: £130

* For full contents and more information, visit: www.routledge.com/9781032621081

Mastering Technical Art in Unreal Engine

World Building



Greg Penninck, Stuart Butler

This covers how to use the latest development tools to create your own Virtual World powered by the Unreal Engine. Each chapter will provide you with the necessary underpinning theory as well as activities to test your learning inside of the Unreal Engine. This book will be of great interest to all students learning to create technical art within the Unreal Engine, as well as professionals looking to sharpen their skills.

CRC Press
January 2025:232
Pb: 978-1-032-64973-3: £44.99
Hb: 978-1-032-66387-6: £120

* For full contents and more information, visit: www.routledge.com/9781032649733

Mastering Technical Art in Unreal Engine

Materials and VFX



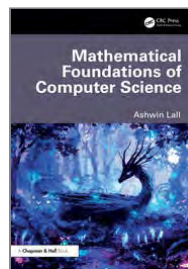
Greg Penninck, Stuart Butler

This book covers how to build materials and VFX that bring your projects to life in the Unreal Engine. Each chapter will provide you with the necessary underpinning theory as well as activities to test your learning inside of the Unreal Engine. This book will be of great interest to all students learning to create technical art within the Unreal Engine, as well as professionals looking to sharpen their skills.

CRC Press
January 2025:256
Pb: 978-1-032-64968-9: £44.99
Hb: 978-1-032-66384-5: £120

* For full contents and more information, visit: www.routledge.com/9781032649689

Mathematical Foundations of Computer Science



Ashwin Lall Denison University, 100 W College Street, Granville, OH 43023, USA

Mathematical Foundations of Computer Science introduces students to the discrete mathematics needed later in their Computer Science coursework with theory of computation topics interleaved throughout. Students learn about mathematical concepts just in time to apply them to theory of computation ideas. For instance, sets motivate the study of finite automata, direct proof is practised using closure properties, induction is used to prove the language of an automaton, and contradiction is used to apply the pumping lemma.

Chapman & Hall
November 2024:228
Pb: 978-1-032-46787-0: £44.99
Hb: 978-1-032-46789-4: £120
eBook: 978-1-003-38328-4

* For full contents and more information, visit: www.routledge.com/9781032467870

Maturity Business Models for Manufacturing in the Digital Age



Bożena Gajdzik, Magdalena Jaciow, Radosław Wolniak, Robert Wolny

The book explores the concept of business maturity within the context of Industry 4.0, focusing on how organizations can achieve strategic goals through effective process management and technology integration. It presents maturity models assessing companies' readiness for digital transformation, emphasizing the importance of continuous improvement, risk management, and employee development. Through empirical research, the book offers insights into the business maturity of the Polish industrial enterprises, providing practical recommendations for navigating the challenges of digitalization.

CRC Press
February 2025:202
Hb: 978-1-032-72970-1: £125

* For full contents and more information, visit: www.routledge.com/9781032729701

Modern Technologies in Healthcare

AI, Computer Vision, Robotics



Edited by **Temitope Emmanuel Komolafe, Patrice Monkam, Blessing Funmi Komolafe, Nizhuan Wang**

Series: *Analytics and AI for Healthcare*

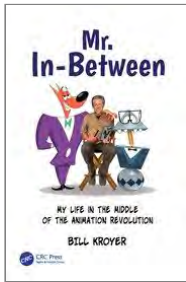
This book comprehensively explores the latest technological advancements in healthcare, with a particular focus on the application of cutting-edge technologies such as artificial intelligence (AI), robotics, and computer vision. The focus extends across crucial domains such as disease diagnosis and monitoring, medical imaging, and the facilitation of remote healthcare services. An essential guide for healthcare professionals, researchers, and enthusiasts eager to understand and actively contribute to shaping the future of healthcare through the integration of AI and other disciplines.

CRC Press
May 2025:392
Pb: 978-1-032-77232-5: £44.99
Hb: 978-1-032-77233-2: £130

* For full contents and more information, visit: www.routledge.com/9781032772325

Mr. In-Between

My Life in the Middle of the Animation Revolution



Bill Kroyer

Mr. In-Between: My Life in the Middle of the Animation Revolution is the fascinating and hilarious saga of one of animation's computer graphics pioneers, Bill Kroyer, making his way to Hollywood to end up as a key figure in the technical revolution of animation's "Second Golden Age." He provides an artist's explanation of the fundamental principles of animation, from the basic mechanics of motion to the immersive, artful experience of visualizing and realizing the performance of an imaginary character.

CRC Press

February 2025:340

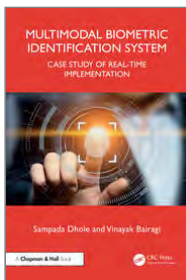
Pb: 978-1-032-90472-6: **£44.99**

Hb: 978-1-032-90473-3: **£115**

* For full contents and more information, visit: www.routledge.com/9781032904726

Multimodal Biometric Identification System

Case Study of Real-Time Implementation



Sampada Dhole BVCOEW, India, Vinayak Bairagi

This book presents a novel method of multimodal biometric fusion using a random selection of biometrics, which covers a new method of feature extraction, a new framework of sensor level and feature level fusion. Most of the biometric systems presently use unimodal systems which have several limitations. Multimodal systems can increase the matching accuracy of a recognition system. This monograph shows how the problems of unimodal systems can be efficiently dealt with and focuses on multimodal biometric identification and sensor-level feature-level fusion. It discusses fusion in biometric systems to improve performance.

Chapman & Hall

November 2024:142

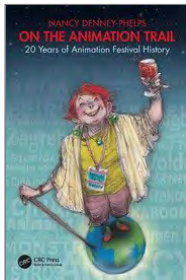
Hb: 978-1-032-66058-5: **£115**

eBook: 978-1-032-66599-3

* For full contents and more information, visit: www.routledge.com/9781032660585

On the Animation Trail

20 Years of Animation Festival History



Nancy Denney-Phelps Animation World Network, CA, USA.

This book charts the history of the last 20 years of animation festivals. From Annecy, the oldest animation festival in the world, to Beirut, or the founding of the festival in Peja, Kosovo, Nancy-Denney Phelps has recorded not just the films screened but also the people and what makes each festival unique. Documenting over 20 years of travels, this book will appeal to all those with an interest in animation. If you are a young animator and want to know what festival life is like, this is the book for you. If you are a seasoned veteran and want to bring back some memories of festival past this book should bring some smiles to your face.

CRC Press

December 2024:190

Pb: 978-1-032-56568-2: **£44.99**

Hb: 978-1-032-56570-5: **£120**

eBook: 978-1-003-43614-0

* For full contents and more information, visit: www.routledge.com/9781032565682

Online Gaming in India

Technology, Policy, and Challenges



Edited by **Lovely Dasgupta** West Bengal National University of Juridical Sciences, India, **Shameek Sen**

This book offers a comprehensive overview from diverse perspectives of online gaming technology, policy, and experiments to understand and review the Indian approach. It starts with the technological viewpoint on the governance and regulation of online gaming and includes the Indian experiment in governing and regulating it. The book brings a nuanced approach related to the perspectives of various stakeholders, the players, the developers, the gamers, the regulators, the law enforcement agencies, the industry and most importantly, the consumers, who are also the intended audience of the work.

Chapman & Hall

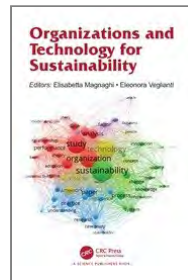
November 2024:304

Hb: 978-1-032-61919-4: **£89.99**

eBook: 978-1-032-62420-4

* For full contents and more information, visit: www.routledge.com/9781032619194

Organizations and Technology for Sustainability



Edited by **Elisabetta Magnaghi**, **Eleonora Veglianti** University Catholic of Lille, France

This book presents insights on digital transformation with a multidisciplinary lens. Collecting chapters from several management perspectives, it provides perspectives on the role of various concepts and elements that are needed by our organizations to win in today's competition. This book is a contribution to the organizational, to the information and communication technology (ICT) as well as to the sustainability discussion. Here, the readers can find heterogeneous inputs to better understand the organizational and technological aspects considering a sustainable business approach.

CRC Press

December 2024:224

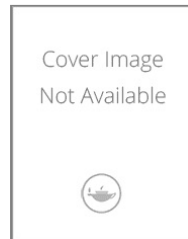
Hb: 978-1-032-59824-6: **£115**

eBook: 978-1-003-45644-5

* For full contents and more information, visit: www.routledge.com/9781032598246

Organized Skepticism in the Age of Misinformation

Surviving the Kingdom of Gossip



Brett Bourbon, **Renita Murimi**

This book challenges the idea that truthfulness is a necessary, or even a relevant condition, of information. Instead, the book develops a conceptual framework in which information is understood as gossip, which fits within a more general account of information and knowledge as constrained but contingent social practices. Using this framework, the book provides a nuanced understanding of the "grammar" of gossip that permeates both online and real-world environments, and sheds light on the often overused and confused terms of our time: information, misinformation, and knowledge.

CRC Press

March 2025:264

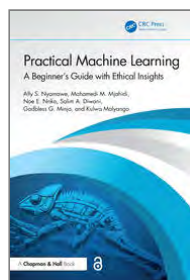
Pb: 978-1-032-49347-3: **£44.99**

Hb: 978-1-032-51321-8: **£115**

* For full contents and more information, visit: www.routledge.com/9781032493473

Practical Machine Learning

A Beginner's Guide with Ethical Insights



Ally S. Nyamawe, **Mohamed M. Mjahidi**, **Noe E. Nnko**, **Salim A. Diwani**, **Godbless G. Minja**, **Kulwa Malyango**

This book enables beginners to construct practical, real-world solutions powered by machine learning across diverse application domains. It demonstrates the fundamental techniques involved in data collection, integration, cleansing, transformation, development, and deployment of machine learning models. It emphasizes the importance of integrating responsible and explainable AI into machine learning models, ensuring these principles are prioritized rather than treated as an afterthought.

Chapman & Hall
January 2025:192
Pb: 978-1-032-77029-1: **£44.99**
Hb: 978-1-032-78216-4: **£175**

* For full contents and more information, visit: www.routledge.com/9781032770291

Predictive Analytics and Generative AI for Data-Driven Marketing Strategies



Edited by **Hemachandran K Woxsen** University, Hyderabad, India, **Debdutta Choudhury** Woxsen University, India, **Raul Villamarin Rodriguez**, **Jorge A. Wise** CETYS Universidad, Mexico, **Revathi T Woxsen** University, India

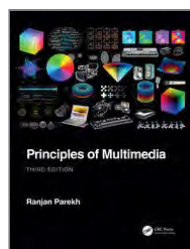
Series: Artificial Intelligence, Machine Learning, Data Analytics and Automation for Business Management

The book provides an in-depth exploration of cutting-edge technologies and how they are used to support data-driven marketing strategies and empower organizations to make the right decisions. It includes real-world case studies and examples from diverse marketing domains, demonstrating how predictive analytics and generative AI have been successfully applied to solve marketing challenges and drive tangible results. It showcases emerging trends in predictive analytics and generative AI for marketing, and potential impact on the future of data-driven marketing.

Chapman & Hall
December 2024:290
Hb: 978-1-032-74891-7: **£150**

* For full contents and more information, visit: www.routledge.com/9781032748917

Principles of Multimedia



Ranjan Parekh

Principles of Multimedia is an ideal textbook for graduate and post-graduate students studying courses on image processing, speech and language processing, signal processing, video object detection and tracking, graphic design and modeling, and related multimedia technologies.

CRC Press
April 2025:472
Pb: 978-1-032-64294-9: **£74.99**
Hb: 978-1-032-64332-8: **£190**

* For full contents and more information, visit: www.routledge.com/9781032642949

3RD EDITION

Principles of Multimedia



Ranjan Parekh

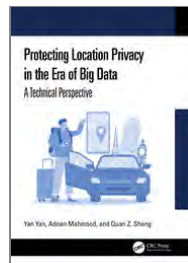
Principles of Multimedia is an ideal textbook for graduate and post-graduate students studying courses on image processing, speech and language processing, signal processing, video object detection and tracking, graphic design and modeling, and related multimedia technologies.

CRC Press
March 2025:472
Pb: 978-1-032-96110-1: **£74.99**
Hb: 978-1-032-96109-5: **£190**

* For full contents and more information, visit: www.routledge.com/9781032961101

Protecting Location Privacy in the Era of Big Data

A Technical Perspective



Yan Yan, **Adnan Mahmood** Macquarie University, **Quan Z. Sheng**

This book examines the uses and potential risks of location-based services (LBS) in the context of big data, with a focus on location privacy protection methods. This title will be a valuable resource for researchers, students, and professionals interested in location-based services, privacy computing and protection, wireless network security, and big data security.

CRC Press
December 2024:136
Hb: 978-1-032-89988-6: **£59.99**

* For full contents and more information, visit: www.routledge.com/9781032899886

Quantum Computing Strategy

Foundations and Applicability



Elena Yndurain

Quantum computing is not merely an incremental advancement in computing technology; it represents a fundamentally different paradigm from classical computing. Rooted in quantum mechanics, it introduces an entirely new information theory. As a result, translating existing models, solution designs, and approaches to quantum computing is a complex and non-trivial task. This comprehensive book demystifies complex quantum concepts through accessible explanations, practical case studies, and real-world examples from various industries including aerospace, agriculture, automotive, chemicals, energy, finance, government, healthcare, manufacturing, supply chain and telecommunications.

Chapman & Hall
February 2025:240
Pb: 978-1-032-27582-6: **£42.99**
Hb: 978-1-032-29914-3: **£120**

* For full contents and more information, visit: www.routledge.com/9781032275826

Recent Advances in Deep Learning Applications

New Techniques and Practical Examples



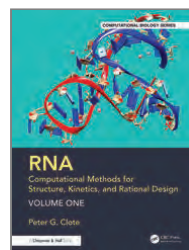
Edited by **Uche Onyekpe, Vasile Palade, M. Arif Wani**

This book presents a collection of extended papers selected from the 22nd IEEE International Conference on Machine Learning and Applications (IEEE ICMLA 2023) and focuses on deep learning architectures and their applications in domains such as health care, security and threat detection, education, fault diagnosis, and robotic control in industrial environments.

Chapman & Hall
April 2025:376
Hb: 978-1-032-94462-3: £115

* For full contents and more information, visit: www.routledge.com/9781032944623

RNA: Computational Methods for Structure, Kinetics, and Rational Design: Volume One



Peter G. Clote Bosto College, MA, USA

Series: *Chapman & Hall/CRC Computational Biology Series*

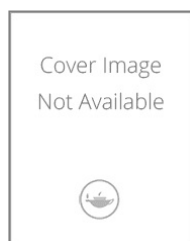
RNA Structure, Kinetics, and Rational Design is a comprehensive treatment of computational methods concerning the secondary structure, folding kinetics and rational design of RNA. It discusses basic principles of statistical thermodynamics, optical melting experiments for energy parameter estimation, as well as dynamic programming, Monte Carlo and constraint programming methods, Markov state models (MSMs), and the requisite mathematics. Each chapter includes problems and complete solutions (sometimes including computer programs using Python and extensions Numpy and Scipy). This book provides the nuts, bolts and tools to take the next steps in computational RNA synthetic biology.

Chapman & Hall
December 2024:394
Hb: 978-1-032-49664-1: £74.99

* For full contents and more information, visit: www.routledge.com/9781032496641

Reimagining Literacy in the Age of AI

Theory and Practice



Edited by **Jason D. DeHart, Suriati Abas, Raúl Alberto Mora, Damiana Gibbons Pyles**

Series: *CRC Press Reference Books in Computer Science*

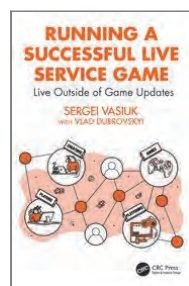
This edited volume assesses the critical intersection of AI and literacy education. Drawing on the concept of "living literacies," it explores the transformative potential of AI in literacy practices, offering a comprehensive narrative that bridges theoretical frameworks with practical applications. Scholars from different parts of the world examine how AI is not just changing what we read and write, but how we think, create, and express ourselves in a post-human context. This timely work serves as an essential guide for educators, researchers, and learners navigating the evolving terrain of literacy in a world increasingly augmented by AI.

Chapman & Hall
April 2025:240
Hb: 978-1-032-83976-9: £100

* For full contents and more information, visit: www.routledge.com/9781032839769

Running a Successful Live Service Game

Live Outside of Game Updates



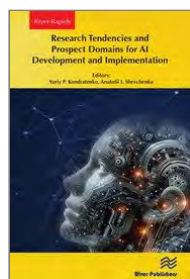
Sergei Vasiuk

The book discusses how live-services video games are published and operated to ensure they are fun and engaging. It explains that what we see on the screen when we play is just a small part of a big process. This process involves studying how players interact with the game and using this information to guess what they might do next. This book will be vital reading to all games professionals that work on live service games, as well as students looking to learn more about the design and development of these games.

CRC Press
December 2024:246
Pb: 978-1-032-71820-0: £44.99
Hb: 978-1-032-73166-7: £120
eBook: 978-1-003-42705-6

* For full contents and more information, visit: www.routledge.com/9781032718200

Research Tendencies and Prospect Domains for AI Development and Implementation



Yuriy P. Kondratenko, Anatolii I. Shevchenko

This River Rapid explores artificial intelligence (AI) implementation priorities, prospect domains, and new research tendencies and trends for AI development and implementation. This book provides an overview of the recent developments in advanced AI systems including new theoretical findings and successful examples of practical implementation of the AI tools in different areas of human activities. The chapters are presented by invited high-caliber scientists from different countries (Ukraine, the United States of America, Poland, Norway, and the People's Republic of China).

River Publishers
November 2024:168
Pb: 978-8-770-04693-0: £48.99
eBook: 978-8-770-04694-7

* For full contents and more information, visit: www.routledge.com/9788770046930

Smart Buildings and Cities with Remote Sensing and GIS



Edited by **Shiv Mohan** ISRO (Retired), Gujarat, India, **Navneet Munoth** MANIT Bhopal, MP, India, **Neha Sharma** ESRI R&D Centre, New Delhi, India

The book studies applications of remote sensing and GIS to highlight the possible integration of the advanced applications of remote sensing and GIS-based technologies in the architecture of smart buildings and city planning. It demonstrates the integration of remote sensing and GIS technologies applications and adaptations through case studies. It leads with the concepts of remote sensing, GIS, architectural and planning practices and how both these fields can be integrated together for smart construction, designing and planning of settlements.

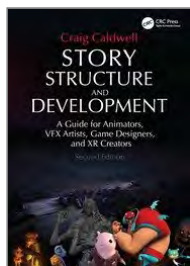
Chapman & Hall
April 2025:432
Hb: 978-1-032-58611-3: £170

* For full contents and more information, visit: www.routledge.com/9781032586113

2ND EDITION

Story Structure and Development

A Guide for Animators, VFX Artists, Game Designers, and XR Creators



Craig Caldwell

The thoroughly revised and updated Second Edition introduces new film and animation examples alongside over 200 vibrant images designed with today's digital content creators in mind. Organized to enhance accessibility, this edition offers a structured approach to the story fundamentals critical to today's movies, animation, games, and XR. Readers will gain valuable insights into the universal patterns of narrative, gaining a deeper understanding of the core story concepts that directors and producers often emphasize with the phrase, "It's all about story."

CRC Press
January 2025:280
Pb: 978-1-032-77748-1: **£44.99**
Hb: 978-1-032-78650-6: **£115**

* For full contents and more information, visit: www.routledge.com/9781032777481

Storytelling for Spatial Computing and Mixed Reality

The Art of Augmenting Imagination



Rob Morgan

This is a clear, accessible manual of storytelling techniques and learning activities for spatial computing and mixed reality. It covers the key skills that the next generation of digital storytellers will need, providing readers with practical tools for creating digital stories and adventures out in the real world. This book will be invaluable to students of game design, experience design and interactive narrative. It provides theories, best-practices and case-studies also relevant to creative professionals in games, XR, immersive theatre, theme parks and brand experience.

CRC Press
December 2024:310
Pb: 978-1-032-45927-1: **£44.99**
Hb: 978-1-032-45928-8: **£120**

* For full contents and more information, visit: www.routledge.com/9781032459271

Swarm Intelligence Applications for the Cities of the Future



Edited by **Leonor Marques Mano Domingos** ISCTE - University Institute of Lisbon, **Maria José Sousa** ISCTE - Instituto Universitário de Lisboa

This book explores how swarm intelligence and digital innovations can shape sustainable, resilient, and inclusive urban environments. It highlights the role of Artificial Intelligence, Internet of Things, and citizen engagement in optimizing energy use, enhancing public safety, and improving governance. Through case studies and technological insights, it illustrates how collective intelligence, and smart policies can transform cities into adaptive, efficient spaces that meet the evolving needs of their populations.

CRC Press
March 2025:242
Hb: 978-1-032-65675-5: **£125**

* For full contents and more information, visit: www.routledge.com/9781032656755

Systems Biology and Machine Learning Methods in Reproductive Health



Edited by **Abhishek Sengupta**, **Priyanka Narad**, **Dinesh Gupta**, **Deepak Modi**

Series: *Chapman & Hall/CRC Computational Biology Series*

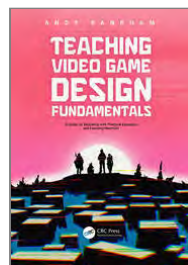
This book combines the knowledge of systems biology and the computational power of machine learning to provide a comprehensive and cutting-edge approach to understanding the intricacies of reproductive processes, resolving fertility issues, and optimizing pregnancy and reproductive disorder outcomes. Drawing on the expertise of leading researchers from both fields, the book showcases the most up-to-date methodologies, cases, and discoveries, making it a must-read for those involved in reproductive health research.

Chapman & Hall
January 2025:196
Pb: 978-1-032-78370-3: **£74.99**
Hb: 978-1-032-75551-9: **£120**
eBook: 978-1-003-48754-8

* For full contents and more information, visit: www.routledge.com/9781032783703

Teaching Video Game Design Fundamentals

A Guide for Educating with Practical Examples and Learning Materials



Andy Sandham

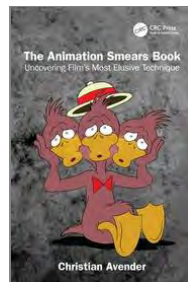
This comprehensive guide provides educators with everything they need to teach video game design fundamentals. With ready-made lesson plans, practical examples, assignment templates, exercises, video walkthroughs and learning materials in a modular format that allows for customization, it makes it easy to tailor lesson plans to meet the unique needs of your students, turning your classroom into an immersive learning environment that inspires creativity and innovation. This book will be vital reading to both educators teaching, and students learning, game design.

CRC Press
February 2025:320
Pb: 978-1-032-64470-7: **£44.99**
Hb: 978-1-032-64471-4: **£120**

* For full contents and more information, visit: www.routledge.com/9781032644707

The Animation Smears Book

Uncovering Film's Most Elusive Technique



Christian Avender

The Animation Smears Book: Uncovering Film's Most Elusive Technique is a comprehensive guide that provides extensive information on the stylistic and creative aspects of smears and their impact on how they make use of the way we perceive motion. Additionally, it also reveals the names of artists who helped develop them and the original techniques that they used. Thoroughly examined by a professional animator, the animation smear is highlighted as a versatile technique used in all forms of animation including 3D and stop-motion.

CRC Press
December 2024:280
Pb: 978-1-032-72434-8: **£44.99**
Hb: 978-1-032-72835-3: **£115**

* For full contents and more information, visit: www.routledge.com/9781032724348

The Fundamentals of Tabletop Miniatures Game Design

A Designer's Handbook



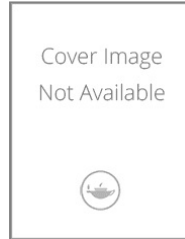
Glenn Ford , Mike Hutchinson

This book presents a much-needed framework for the critical examination of miniatures games and their design. It provides the reader with both a conceptual model for understanding how these games work as well as a toolbox of mechanical approaches to achieving a range of design outcomes and assessing the fit of any given approach within a specific design. Written for game designers, and with a foreword by Gav Thorpe, *The Fundamentals of Tabletop Miniatures Game Design* is a handbook for those that wish to design better miniatures games.

CRC Press
November 2024:252
Pb: 978-1-032-32401-2: **£44.99**
Hb: 978-1-032-32402-9: **£120**
eBook: 978-1-003-31482-0

* For full contents and more information, visit: www.routledge.com/9781032324012

The Object-Oriented Approach to Problem Solving and Machine Learning with Python



Sujith Samuel Mathew University of Adelaide, Australia,
Mohammad Amin Kuhail , Maha Hadid , Shahbano Farooq

This book is a comprehensive guide suitable for beginners and experienced developers alike. It teaches readers how to master object-oriented programming (OOP) with Python and use it in real-world applications. Each chapter is designed for hands-on learning. You'll solidify your understanding with case studies, exercises, and projects that apply your newfound knowledge to real-world scenarios. The progressive structure ensures mastery, with each chapter building on the previous one, reinforced by exercises and projects. This book is your one-stop shop for mastering OOP with Python and venturing into the exciting world of machine learning and data science.

Chapman & Hall
February 2025:406
Pb: 978-1-032-66831-4: **£44.99**
Hb: 978-1-032-66833-8: **£82.99**

* For full contents and more information, visit: www.routledge.com/9781032668314

The Military Metaverse



Andy Fawkes , David Burden

This book explores the impact that the Metaverse is having today on how militaries procure, maintain, train, plan and fight, and how the Metaverse presents new challenges and opportunities for future conflict. The book provides a history of the use of metaverse technologies in the military, particularly in the areas of design, maintenance, training, planning and operations. It also considers what war in the Metaverse might look like, both in terms of in-world activities and the impact of cyber-war on the Metaverse itself. It should be of interest to militaries across the world, the industries that support them, and those in the wider public with an interest in the military.

CRC Press
April 2025:268
Pb: 978-1-032-60051-2: **£36.99**
Hb: 978-1-032-60053-6: **£94.99**

* For full contents and more information, visit: www.routledge.com/9781032600512

The Pocket Mentor for Video Game UX UI



Simon Brewer

Series: *The Pocket Mentors for Games Careers*

This book provides all the essential information and guidance you need to understand the industry and get your foot on the ladder. The book covers everything from the education you'll need, searching and applying for jobs, and the interview process. It also includes advice on what to do once you're in the role, with chapters covering best practices for UI/UX, how to set goals for future career progression, and interviews with top tips from experts in the industry. This book will be of great interest to all aspiring game developers looking to work in UI/UX and beginners looking to grow their careers.

CRC Press
February 2025:184
Pb: 978-1-032-43397-4: **£29.99**
Hb: 978-1-032-43398-1: **£89.99**

* For full contents and more information, visit: www.routledge.com/9781032433974

The Naked Android

Synthetic Socialness and the Human Gaze



Julie Carpenter

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

The Naked Android: Synthetic Socialness and the Human Gaze illuminates the connection between the stories people tell, their expectations of what a robot is, and how these beliefs and values manifest in how real robots are designed and used. Using ethnographic methods including in-depth interviews with a variety of stakeholders, each chapter explores how people are designing social robots, the experience of living with robots, and people whose jobs it is to dream about a future integrated with robots.

Chapman & Hall
November 2024:296
Pb: 978-0-367-77252-9: **£44.99**
Hb: 978-0-367-77254-3: **£89.99**
eBook: 978-1-003-17045-7

* For full contents and more information, visit: www.routledge.com/9780367772529

The Rise of Intelligent Machines

A Multi-disciplinary Perspective from Industry and Impact on Higher Education



Edited by **Nadya Shaznay Patel** Singapore Institute of Technology, **Nitin Indurkha**

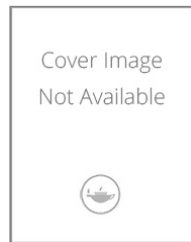
The rapid advancement of artificial intelligence (AI) and other emerging technologies has fundamentally transformed our world in recent decades. This book seeks to explore these profound changes, offering insights from professionals across diverse fields and examining the potential of AI. The book is aimed at students and educators, researchers and administrators in higher education, business leaders, executives and professionals across diverse industries, policymakers, tech enthusiasts, and the general public interested in the impact of AI in varied disciplines. This book is a useful reference for similar postgraduate courses.

Chapman & Hall
January 2025:312
Pb: 978-1-032-74499-5: **£49.99**
Hb: 978-1-032-74500-8: **£115**

* For full contents and more information, visit: www.routledge.com/9781032744995

The Rise of the Roguelite

Inside a Gaming Phenomenon



Edited by **James Cartlidge** Institute for Human Sciences, Vienna

This book analyzes the wave of roguelite games that have appeared over the past decade, putting them in historical context, informing readers about their development out of and relation to the roguelike genre that inspired them. This book will appeal to those wishing to study and learn more about the roguelites, games studies students and researchers, and game designers interested in this genre.

CRC Press

March 2025:224

Hb: 978-1-032-54153-2: **£77.99**

* For full contents and more information, visit: www.routledge.com/9781032541532

Using Blockchain Technology in Healthcare Settings

Empowering Patients with Trustworthy Data



Edited by **Ben Othman Soufiene** University of Gabes, Tunisia, **Saurav Mallik** University of Arizona, US, **Abdulatif Alabdulatif** Qassim University, Saudi Arabia

Series: *Analytics and AI for Healthcare*

This book looks at the integration of blockchain technology in healthcare settings, focusing on its potential to address security and privacy concerns of medical applications. The authors explore the fundamental principles of blockchain technology and its applications within the healthcare landscape. From electronic health records and patient consent management to pharmaceutical supply chains and clinical research, this book examines how blockchain can drive efficiency, enhance security, and ultimately improve patient outcomes. A useful guide for healthcare professionals, patients, policymakers, and those interested in the intersection of technology and healthcare.

CRC Press

March 2025:372

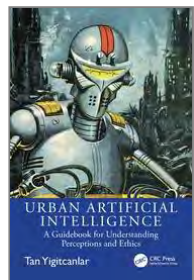
Pb: 978-1-032-77445-9: **£44.99**

Hb: 978-1-032-77447-3: **£130**

* For full contents and more information, visit: www.routledge.com/9781032774459

Urban Artificial Intelligence

A Guidebook for Understanding Perceptions and Ethics



Tan Yigitcanlar Queensland University of Technology

This volume thoroughly explores the perceptions and ethical considerations surrounding urban AI. Yigitcanlar delves into the complex public and professional views on AI, offering invaluable insights for policymakers, urban planners, and developers. Alongside its companion Urban Artificial Intelligence: A Guidebook for Understanding Concepts and Technologies, these books provide essential insights for urban planners, policymakers, researchers, and anyone interested in AI and urban development, guiding responsible AI integration to foster smarter, more sustainable, and equitable urban environments.

CRC Press

December 2024:414

Pb: 978-1-032-86123-4: **£44.99**

Hb: 978-1-032-86128-9: **£130**

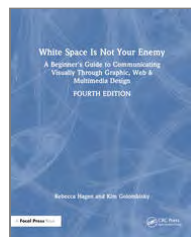
eBook: 978-1-003-52144-0

* For full contents and more information, visit: www.routledge.com/9781032861234

4TH EDITION

White Space Is Not Your Enemy

A Beginner's Guide to Communicating Visually Through Graphic, Web & Multimedia Design



Rebecca Hagen President & Principle designer, Sky Lake Studio, **Kim Golombisky** Univ. of South Florida, USA

DESIGNING a website or brochure without an art background? Then step away from the computer and read this engaging conversational introduction to visual communications first. Written for the beginner, White Space Is Not Your Enemy is a practical graphic design and layout guide that introduces the concepts and practices necessary for producing effective visual communication across a variety of formats—from web to print. This beautifully illustrated full-color book covers all of the basics to help you develop your eye and produce evocative designs that work.

CRC Press

December 2024:304

Pb: 978-1-032-10434-8: **£39.99**

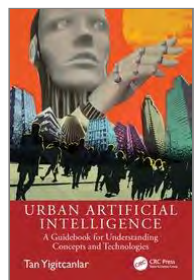
Hb: 978-1-032-10435-5: **£105**

eBook: 978-1-003-21532-5

* For full contents and more information, visit: www.routledge.com/9781032104348

Urban Artificial Intelligence

A Guidebook for Understanding Concepts and Technologies



Tan Yigitcanlar Queensland University of Technology

Yigitcanlar offers a comprehensive exploration of AI's role in shaping modern cities. This volume delves into how AI-driven analytics and big data provide city planners with deeper insights, enabling more informed decision-making such as efficient resource use, improved public services, and better infrastructure management. This first volume is complemented by Urban Artificial Intelligence: A Guidebook for Understanding Perceptions and Ethics, which delves into the ethical and perceptual dimensions of AI in urban settings. Together, they offer essential insights for urban planners, policymakers, researchers interested in the intersection of AI and urban development.

CRC Press

December 2024:430

Pb: 978-1-032-86130-2: **£44.99**

Hb: 978-1-032-86134-0: **£130**

eBook: 978-1-003-52145-7

* For full contents and more information, visit: www.routledge.com/9781032861302

World Design for 2D Action-Adventures



Christopher W. Totten American University, Washington, DC, USA, **Adrian Sandoval**

Series: *Level Design Practices*

Award-winning action adventure designers Christopher Totten and Adrian Sandoval guide you on a quest to create levels for different styles of 2D action-adventure games, from top-down dungeon-crawler adventures to side-scrolling non-linear "Metroidvania" titles. The book shows how principles of game and level design are applied in some of your favorite 2D action-adventure games. It uses examples from games such as The Legend of Zelda and Hollow Knight, and provides insights from the authors' own experiences. Level Design Practices for 2D Action Adventure Games will help to improve their level design skills within this genre.

CRC Press

December 2024:264

Pb: 978-1-032-57998-6: **£44.99**

Hb: 978-1-032-57997-9: **£120**

* For full contents and more information, visit: www.routledge.com/9781032579986

A Beginner's Guide to Mathematical Proof



Mark J. DeBonis Manhattan College, USA

A Beginner's Guide to Mathematical Proof prepares mathematics majors for the transition to abstract mathematics, as well as introducing a wider readership of quantitative science students, such as engineers, to the mathematical structures underlying more applied topics. The text is designed to be easily utilized by both instructor and student, with an accessible, step-by-step approach requiring minimal mathematical prerequisites. The book builds towards more complex ideas as it progresses, but never makes assumptions of the reader beyond the material already covered.

Chapman & Hall
April 2025:170
Pb: 978-1-032-68770-4: **£45.99**
Hb: 978-1-032-68619-6: **£120**

* For full contents and more information, visit: www.routledge.com/9781032687704

A Mathematical Tour



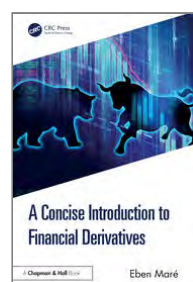
Denis Bell , Chris Bernhardt

A Mathematical Tour introduces readers to a selection of mathematical topics chosen for their centrality, importance, historical significance, and intrinsic appeal and beauty.

A K Peters/CRC Press
May 2025:328
Pb: 978-1-032-74738-5: **£36.99**
Hb: 978-1-032-74789-7: **£100**

* For full contents and more information, visit: www.routledge.com/9781032747385

A Concise Introduction to Financial Derivatives



Eben Maré

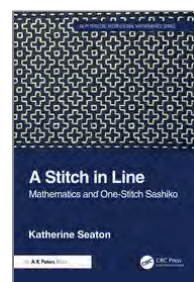
A Concise Introduction to Financial Derivatives seeks to present financial derivatives in a manner that requires minimal mathematical background. Readers will obtain, in a quick and engaging way, a working knowledge of the field and a collection of practical working insights. The book would be ideal for aspiring young practitioners, advanced undergraduates and masters-level students who require a concise and practice-led introduction to financial derivatives.

Chapman & Hall
November 2024:218
Hb: 978-1-032-63085-4: **£74.99**
eBook: 978-1-032-63709-9

* For full contents and more information, visit: www.routledge.com/9781032630854

A Stitch in Line

Mathematics and One-Stitch Sashiko



Katherine Seaton

Series: *AK Peters/CRC Recreational Mathematics Series*

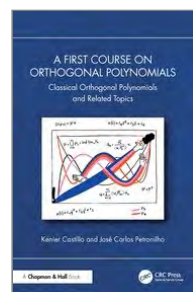
This book provides readers with instructions for creating hitomezashi items with minimum outlay. The reader is guided through the practical steps involved in creating each design, and then the mathematics which underpins it is explained in a friendly, accessible way. This is a fantastic book for anyone who is interested in recreational mathematics and/or fibre arts and can be a useful resource for teaching and learning mathematical concepts in a fun and engaging format.

A K Peters/CRC Press
November 2024:182
Pb: 978-1-032-48720-5: **£22.99**
Hb: 978-1-032-49150-9: **£74.99**
eBook: 978-1-003-39235-4

* For full contents and more information, visit: www.routledge.com/9781032487205

A First Course on Orthogonal Polynomials

Classical Orthogonal Polynomials and Related Topics



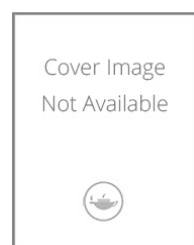
Kenier Castillo , José Carlos Petronillo

This book provides an introduction to orthogonal polynomials and special functions aimed at graduate students studying these topics for the first time. A large part of its content is essentially inspired by the works of Pascal Maroni on the so-called algebraic theory of orthogonal polynomials, which distinguishes it from other contributions in the field.

Chapman & Hall
November 2024:226
Hb: 978-1-032-55597-3: **£91.99**
eBook: 978-1-003-43206-7

* For full contents and more information, visit: www.routledge.com/9781032555973

A Textbook on Linear Algebra with its Applications



Ramakant Meher

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

This book contains a detailed discussion of the matrix operation, its properties, and its applications in finding the solution of linear equations and determinants. Linear algebra is a subject that has found the broadest range of applications in all branches of mathematics, physical and social sciences, and engineering. It has a more significant application in information sciences and control theory.

River Publishers
March 2025:336
Hb: 978-8-770-04157-7: **£110**

* For full contents and more information, visit: www.routledge.com/9788770041577

Advanced Fractal Graph Theory and Applications



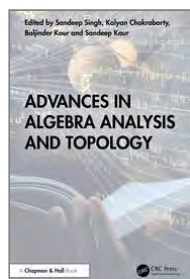
P. Tharaniya Rajalakshmi Institute of Technology, India, **G. Jayalalitha** Vels Institute of Science, technology and advanced studies, India, **Pethuru Raj** IBM Pvt.Ltd., India, **B. Sundaravadivazhagan** University of Technology and Applied Sciences-AI Mussana

This book explores the dynamic interplay between fractals and graph theory, two powerful mathematical tools with vast applications. It presents a strategic combination and the synergistic use of these disciplines to address real-world problems and challenges. The book begins with an introduction to the basic concepts of fractals and graph theory and goes on to explore the applications in various domains, including natural phenomena modelling, scheduling, and network optimisation.

Chapman & Hall
December 2024:288
Hb: 978-1-032-76810-6: £89.99

* For full contents and more information, visit: www.routledge.com/9781032768106

Advances in Algebra Analysis and Topology



Edited by **Sandeep Singh**, **Kalyan Chakraborty** Harish-Chandra Research Institute, India, **Baljinder Kour** Akal University, India, **Sandeep Kaur** Akal University, India

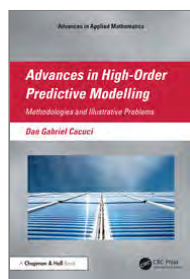
This book presents cutting-edge research, advanced techniques, and practical applications of Algebra Analysis and Topology. It offers in-depth insights, theoretical developments, and practical applications, showcasing the richness and interdisciplinary nature of algebra, analysis, and topology. The book fosters a deeper understanding of the fundamental principles while also highlighting the latest advancements and emerging trends in these disciplines. Readers are encouraged to apply the theoretical concepts and techniques to solve mathematical problems, engaging with the book's problem-solving approach.

Chapman & Hall
December 2024:144
Hb: 978-1-032-62033-6: £120

* For full contents and more information, visit: www.routledge.com/9781032620336

Advances in High-Order Predictive Modeling

Methodologies and Illustrative Problems



Dan Gabriel Cacuci University of South Carolina

Series: *Advances in Applied Mathematics*

Continuing the author's previous work on modeling, this book presents the most recent advances in high-order predictive modeling. The author begins with the mathematical framework of the 2nd-BERRU-PM methodology, an acronym that designates the "second-order best-estimate with reduced uncertainties (2nd-BERRU) predictive modeling (PM)." The 2nd-BERRU-PM methodology is fundamentally anchored in physics-based principles stemming from thermodynamics (maximum entropy principle) and information theory, being formulated in the most inclusive possible phase-space, namely the combined phase-space of computed and measured parameters and responses.

Chapman & Hall
December 2024:302
Hb: 978-1-032-74056-0: £110
eBook: 978-1-003-47811-9

* For full contents and more information, visit: www.routledge.com/9781032740560

2ND EDITION

Algebra

Groups, Rings, and Fields



Louis Halle Rowen Bar-Ilan University, Israel, **Uzi Vishne**

Series: *Textbooks in Mathematics*

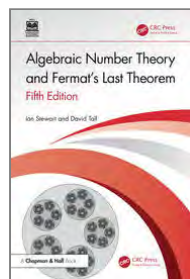
Algebra is a subject we become acquainted with during most of our mathematical education, often in connection with the solution of equations. This book deals with developments related to their solutions. The principle at the heart of abstract algebra, a subject that enables one to deduce sweeping conclusions from elementary premises, is that the process of abstraction enables us to solve a variety of such problems with economy of effort. This leads to the glorious world of mathematical discovery.

Chapman & Hall
February 2025:392
Hb: 978-0-367-23176-7: £74.99

* For full contents and more information, visit: www.routledge.com/9780367231767

5TH EDITION

Algebraic Number Theory and Fermat's Last Theorem



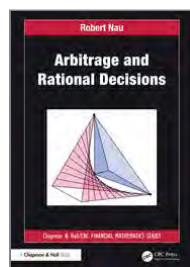
Ian Stewart, **David Tall** University of Warwick, UK

Updated to reflect current research and extended to cover more advanced topics as well as the basics, this book introduces fundamental ideas of algebraic numbers and explores one of the most intriguing stories in the history of mathematics—the quest for a proof of Fermat's Last Theorem. The authors use this celebrated theorem to motivate a general study of the theory of algebraic numbers, initially from a relatively concrete point of view. Students will see how Wiles's proof of Fermat's Last Theorem opened many new areas for future work.

Chapman & Hall
December 2024:504
Pb: 978-1-032-61093-1: £49.99
Hb: 978-1-032-60225-7: £150

* For full contents and more information, visit: www.routledge.com/9781032610931

Arbitrage and Rational Decisions



Robert Nau

Series: *Chapman and Hall/CRC Financial Mathematics Series*

This unique book offers a new approach to the modeling of rational decision making under conditions of uncertainty and strategic and competition interactions among agents. It presents a unified theory in which the most basic axiom of rationality is the principle of no-arbitrage, namely that neither an individual decision maker nor a small group of strategic competitors nor a large group of market participants should behave in such a way as to provide a riskless profit opportunity to an outside observer.

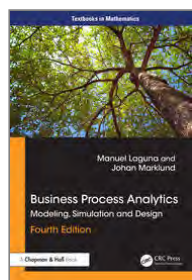
Chapman & Hall
December 2024:352
Hb: 978-1-032-86351-1: £74.99

* For full contents and more information, visit: www.routledge.com/9781032863511

4TH EDITION

Business Process Analytics

Modeling, Simulation and Design



Manuel Laguna University of Colorado, Boulder, USA,
Johan Marklund Lund University, Sweden

Series: *Textbooks in Mathematics*

BUSINESS PROCESS ANALYTICS Modeling, Simulation, and Design can be thought of as a hybrid between traditional books on process management, operations management, and simulation. § New Section on data-driven process improvement (with data visualization) § Added a subsection of control charts to the 6-sigma section § Replaced business process reengineering with business process management § Updated all text, figures and examples, and exercises to ExtendSim10 (current version) § More coverage on design of experiments § More coverage of machine learning and neural networks

Chapman & Hall
January 2025:544

Hb: 978-1-032-59542-9: £74.99

* For full contents and more information, visit: www.routledge.com/9781032595429

Calculus for Business and Economics

An Example-Based Introduction



Jon Pierre Fortney, **Linda Smail** Zayed University, UAE

This book is designed for first-year university students specializing in business and economics. This book is crafted in a clear, easy-to-read style, covering all the essential calculus-related topics that students are likely to encounter in their studies. With real-world business and economics applications seamlessly integrated around the core calculus concepts, students will find the book of real practical value throughout their time in university and beyond.

Chapman & Hall
February 2025:348

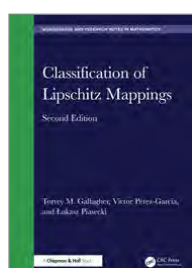
Pb: 978-1-032-76850-2: £45.99

Hb: 978-1-032-76430-6: £115

* For full contents and more information, visit: www.routledge.com/9781032768502

2ND EDITION

Classification of Lipschitz Mappings



Torrey M. Gallagher Monmouth University, **Víctor Pérez-García** Universidad Veracruzana, Campanario #5B, La Pradera, **Łukasz Piasecki**

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

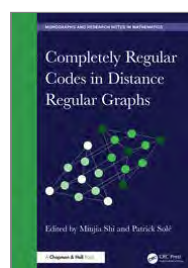
This book presents a systematic, self-contained treatment of a new classification of Lipschitz mappings and its applications, particularly to metric fixed point theory. Suitable for readers interested in nonlinear analysis, metric fixed point theory, differential equations, ergodic theory, and dynamical systems, the book requires only a basic background in functional analysis and topology, and should therefore be accessible to graduate students or advanced undergraduates, as well as to professionals looking for new topics in metric fixed point theory.

Chapman & Hall
March 2025:296

Hb: 978-1-032-60559-3: £155

* For full contents and more information, visit: www.routledge.com/9781032605593

Completely Regular Codes in Distance Regular Graphs



Edited by **Minjia Shi** Anhui University, China, **Patrick Solé** Institut de Mathématiques de Luminy

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

The concept of completely regular code was introduced by Delsarte in his celebrated 1973 thesis which created the field of Algebraic Combinatorics. This notion was extended by several authors from classical codes over finite fields to codes in distance-regular graphs. In recent years many examples were constructed in other distance regular graphs including q-analogues of the previous, and the Doob graph. This book provides, for the first time, a definitive source for the main theoretical notions underpinning this fascinating area of study. It also supplies several useful surveys of constructions using Coding Theory, Design Theory and Finite Geometry.

Chapman & Hall

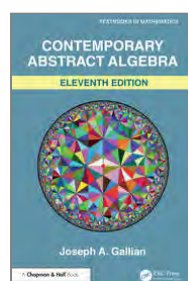
March 2025:504

Hb: 978-1-032-49444-9: £155

* For full contents and more information, visit: www.routledge.com/9781032494449

11TH EDITION

Contemporary Abstract Algebra



Joseph Gallian

Series: *Textbooks in Mathematics*

CONTEMPORARY ABSTRACT ALGEBRA, 11e is for a course to enable students to do computations and write proofs. This text stresses the importance of obtaining a solid introduction to the traditional topics, while at the same time presenting abstract algebra as a contemporary and very much active subject which is currently being used by working physicists, chemists, and computer scientists. For more than three decades, this classic text has been widely appreciated by instructors and students alike. The book offers an enjoyable read and conveys and develops enthusiasm for the beauty of the topics presented. It is comprehensive, lively, and engaging.

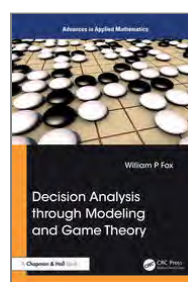
Chapman & Hall

February 2025:556

Hb: 978-1-032-77891-4: £74.99

* For full contents and more information, visit: www.routledge.com/9781032778914

Decision Analysis through Modeling and Game Theory



William P. Fox

Series: *Advances in Applied Mathematics*

This unique book presents decision analysis in the context of mathematical modeling and game theory. The author emphasizes and focuses on the model formulation and modeling building skills required for decision analysis, as well as the technology to support the analysis. The primary objective of this book is illustrative in nature. It sets the tone through the introduction to mathematical modeling. The text provides a process for formally thinking about the problem and illustrates many scenarios and illustrative examples.

Chapman & Hall

November 2024:314

Pb: 978-1-032-72691-5: £74.99

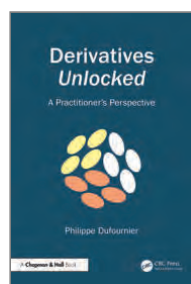
Hb: 978-1-032-72160-6: £190

eBook: 978-1-032-72688-5

* For full contents and more information, visit: www.routledge.com/9781032726915

Derivatives Unlocked

A Practitioner's Perspective



Philippe Dufournier

This book offers the reader a practical explanation of the key concepts underpinning financial derivatives. Resolutely selective and user-friendly, this book constitutes an introduction to the basic pricing, design and use cases of derivatives products in modern global finance. The book is articulated around two parallel streams of content. On the one hand, the Derivatives Toolbox comes as a set of calculation and pricing rules behind the building blocks of most derivatives products. On the other hand, the Case Studies, largely inspired by real European corporate finance and risk management situations, allow the reader to make explicit use of the design and pricing principles learned.

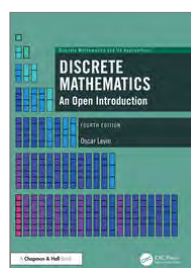
Chapman & Hall
December 2024:350
Pb: 978-1-032-78006-1: **£59.99**
Hb: 978-1-032-78009-2: **£150**

* For full contents and more information, visit: www.routledge.com/9781032780061

4TH EDITION

Discrete Mathematics

An Open Introduction



Oscar Levin

Series: Discrete Mathematics and Its Applications

This book aims to provide an introduction to select topics in discrete mathematics at a level appropriate for first or second year undergraduate math and computer science majors, especially those who intend to teach middle and high school mathematics. The book began as a set of notes for the Discrete Mathematics course at the University of Northern Colorado. This course serves both as a survey of the topics in discrete math and as the "bridge" course for math majors.

Chapman & Hall
February 2025:480
Pb: 978-1-032-96616-8: **£44.99**
Hb: 978-1-032-96552-9: **£155**

* For full contents and more information, visit: www.routledge.com/9781032966168

Equity Release Finance



Radu S. Tunaru University of Sussex, UK, **Enoch B. Quaye** University of Bristol, UK

Series: Chapman and Hall/CRC Financial Mathematics Series

Equity Release Finance provides a self-contained introduction to the principles underpinning Equity Release Products (ERPs). The approach of the book, while academically robust, is also accessible and engaging, with a focus on practical examples and applications. It will provide an invaluable resource to a diverse audience, including Master's degree and PhD students in finance, management science, actuarial science, and risk management. It will also be of service to academics and industry professionals.

Chapman & Hall
March 2025:304
Hb: 978-1-032-37197-9: **£115**

* For full contents and more information, visit: www.routledge.com/9781032371979

2ND EDITION

Exploring Linear Algebra

Labs and Projects with Mathematica®



Crista Arangala Elon University, North Carolina, USA

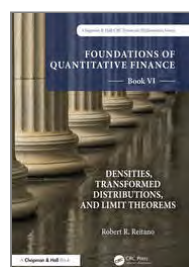
Series: Textbooks in Mathematics

This text focuses on the primary topics in a first course in Linear Algebra. The author includes additional advanced topics related to data analysis, singular value decomposition and connections to differential equations. This is a lab text that would lead a class through Linear Algebra using Mathematica demonstrations and Mathematica coding.

Chapman & Hall
February 2025:168
Pb: 978-1-032-94231-5: **£44.99**
Hb: 978-1-032-94024-3: **£115**

* For full contents and more information, visit: www.routledge.com/9781032942315

Foundations of Quantitative Finance, Book VI: Densities, Transformed Distributions, and Limit Theorems



Robert R. Reitano

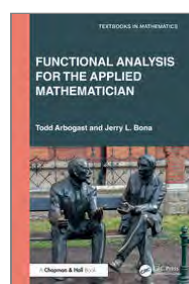
Series: Chapman and Hall/CRC Financial Mathematics Series

Every finance professional wants and needs a competitive edge. A firm foundation in advanced mathematics can translate into dramatic advantages to professionals willing to obtain it. Many are not—and that is the competitive edge these books offer the astute reader. Features Extensively referenced to materials from earlier books Presents the theory needed to support advanced applications Supplements previous training in mathematics, with more detailed developments Built from the author's five decades of experience in industry, research, and teaching

Chapman & Hall
November 2024:404
Pb: 978-1-032-22949-2: **£74.99**
Hb: 978-1-032-23116-7: **£190**
eBook: 978-1-003-27577-0

* For full contents and more information, visit: www.routledge.com/9781032229492

Functional Analysis for the Applied Mathematician



Todd Arbogast, Jerry L. Bona

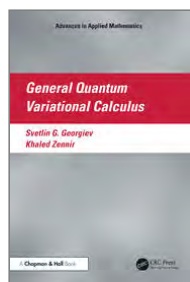
Series: Textbooks in Mathematics

This self-contained volume provides a rigorous introduction to functional analysis and its applications. Students from mathematics, science, engineering, and certain social science and interdisciplinary programs will benefit from the material. It is accessible to graduate and advanced undergraduate students with a solid background in undergraduate mathematics and an appreciation of mathematical rigor. Students are called upon to actively engage with the material, to the point of proving some of the basic results or their straightforward generalizations, both within the text and within the generous set of exercises.

Chapman & Hall
February 2025:430
Hb: 978-1-032-79156-2: **£87.99**

* For full contents and more information, visit: www.routledge.com/9781032791562

General Quantum Variational Calculus



Svetlin G. Georgiev , Khaled Zennir Qassim University

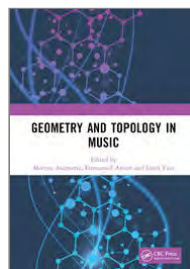
Series: Advances in Applied Mathematics

Quantum calculus is the modern name for the investigation of calculus without limits. The quantum calculus or q -calculus began with FH Jackson in the early twentieth century, but this kind of calculus had already been worked out by Euler and Jacobi. This book is specially designed for those who wish to understand general quantum variational calculus. This book encompasses recent developments of general quantum variational calculus. The text material of this book is presented in highly readable, mathematically solid format. Many practical problems are illustrated displaying a wide variety of solution techniques.

Chapman & Hall
December 2024:266
Pb: 978-1-032-90069-8: **£59.99**
Hb: 978-1-032-89973-2: **£160**
eBook: 978-1-003-54602-3

* For full contents and more information, visit: www.routledge.com/9781032900698

Geometry and Topology in Music



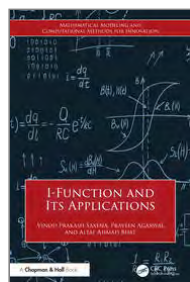
Edited by **Moreno Andreatta , Emmanuel Amiot , Jason Yust**

This book introduces path-breaking applications of concepts from mathematical topology to music-theory topics including harmony, chord progressions, rhythm, and music classification. Contributions address topics of voice leading, Tonnetz (maps of notes and chords), and automatic music classification. It further introduces an application of topology to automatic music classification, drawing upon both static topological representations and time-series evolution, showing how static and dynamic features of music interact as features of musical style. It was originally published as a special issue of the Journal of Mathematics and Music.

CRC Press
November 2024:130
Hb: 978-1-032-84515-9: **£135**
eBook: 978-1-003-51361-2

* For full contents and more information, visit: www.routledge.com/9781032845159

I-Function and Its Applications



Vinod Prakash Saxena Gwalior Academy of Mathematical Sciences, India, **Praveen Agarwal** Anand International Clg. of Engg, India, **Altaf Ahmad Bhat**

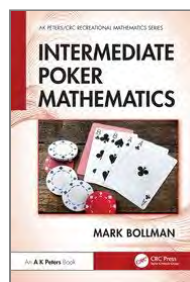
Series: Mathematical Modeling and Computational Methods for Innovation

This book presents the essential role of Mathematical Modeling and Computational Methods in representing physical phenomena mathematically, focusing on the significance of the I-function. Serving as a generalized form of special functions, particularly generalised hypergeometric functions, the I-function emerges from solving dual integral equations, prevalent in scenarios like mixed boundary problems in potential theory, energy diffusion, and population dynamics.

Chapman & Hall
November 2024:310
Hb: 978-1-032-84792-4: **£130**
eBook: 978-1-003-51775-7

* For full contents and more information, visit: www.routledge.com/9781032847924

Intermediate Poker Mathematics



Mark Bollman

Series: AK Peters/CRC Recreational Mathematics Series

This book provides a fascinating collection of mathematical questions set in the diverse world of poker. While it is absolutely possible that a poker player will glean some insight that will improve their skill at the table, this book is not intended primarily as a players' strategy manual, but rather as a means of building up readers understanding of the mathematical concepts at play in the complex world of poker. Although the book is suitable for a general audience, it is formatted in the style of a textbook, with exercises included at the end of each chapter to help build understanding.

A K Peters/CRC Press
November 2024:370
Pb: 978-1-032-73678-5: **£45.99**
Hb: 978-1-032-73898-7: **£150**
eBook: 978-1-003-46764-9

* For full contents and more information, visit: www.routledge.com/9781032736785

Introduction to Differential and Difference Equations Through Modeling



William P. Fox , Robert E. Burks

Series: Textbooks in Mathematics

This book presents an opportunity to learn difference and differential equations through a modelling-first approach. The text is meant as an introduction to those equations and not as a text only for modelling courses. No previous exposure to these equations is expected. Modeling is presented as the vehicle for learning difference and differential equations. The presentation starts with a model (or several models) and presents the solution with minor discussions. Then, methods to obtain those solutions are presented and show these same models and others again in more detail.

Chapman & Hall
April 2025:272
Hb: 978-1-032-94900-0: **£74.99**

* For full contents and more information, visit: www.routledge.com/9781032949000

3RD EDITION

Introduction to Enumerative and Analytic Combinatorics



Miklos Bona University of Florida, Gainesville, USA

Series: Discrete Mathematics and Its Applications

These award-winning textbook targets the gap between introductory texts in discrete mathematics and advanced graduate texts in enumerative combinatorics. The author's goal is to make combinatorics more accessible to encourage student interest and to expand the number of students studying this rapidly expanding field. The book first deals with basic counting principles, compositions and partitions, and generating functions. It then focuses on the structure of permutations, graph enumeration, and extremal combinatorics. Lastly, the text discusses supplemental topics, including error-correcting codes, properties of sequences, and magic squares.

Chapman & Hall
March 2025:592
Hb: 978-1-032-30270-6: **£84.99**

* For full contents and more information, visit: www.routledge.com/9781032302706

2ND EDITION

Introduction to Financial Mathematics



Kevin J. Hastings Knox College, Galesburg, Illinois, USA

Series: Advances in Applied Mathematics

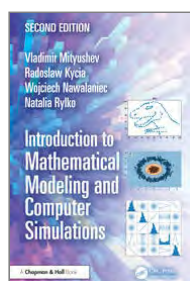
The second edition of this successful and widely recognized textbook again focuses on discrete topics. The author recognizes two distinct paths of study and careers of actuarial science and financial engineering. This text can be very useful as a common core for both. The notable changes and updates to this edition are itemized in the Preface, however, overall, the presentation has been made more efficient. One example is the chapter on discrete probability, rather unique in its emphasis on giving the deterministic problems studied earlier a probabilistic context.

Chapman & Hall
November 2024:413
Hb: 978-1-032-26236-9: £84.99
eBook: 978-1-003-28727-8

* For full contents and more information, visit: www.routledge.com/9781032262369

2ND EDITION

Introduction to Mathematical Modeling and Computer Simulations



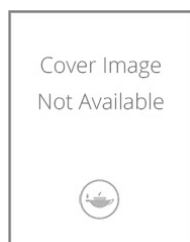
Vladimir Mityushev, Radoslaw Antoni Kycia, Wojciech Nawalaniec, Natalia Rylko

This book continues to serve as an engaging and accessible textbook for undergraduates studying mathematical modeling and computer simulations. The book is heavily focussed on applications, and so may have a particular appeal to applied mathematicians, engineers, and others working in applied quantitative disciplines. The book may also be useful as a reference text for reference text for early-career stage practitioners.

Chapman & Hall
December 2024:348
Hb: 978-1-032-66151-3: £84.99

* For full contents and more information, visit: www.routledge.com/9781032661513

Introduction to Qualitative Methods for Differential Equations



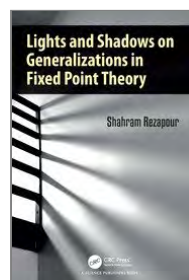
Ronald E. Mickens Clark Atlanta University, SW Atlanta, Georgia, USA

Introduction to Qualitative Methods for Differential Equations provides an alternative approach to teaching and understanding differential equations.

Chapman & Hall
May 2025:280
Pb: 978-1-032-72758-5: £58.99
Hb: 978-1-032-71598-8: £89.99

* For full contents and more information, visit: www.routledge.com/9781032727585

Lights and Shadows on Generalizations in Fixed Point Theory



Shahram Rezapour Dicle University, Turkey

Fixed point theory is a powerful tool in nonlinear analysis, with applications in fractional differential equations and other areas. The book examines the classical techniques of this theory with a critical approach, along with the emergence of various generalizations in its evolution. Using the latest theories of the philosophy of science, the author aims to provide a philosophical explanation for the gaps in the fixed point theory and introduce the reader to profound mathematical-philosophical challenges.

CRC Press
November 2024:332
Hb: 978-1-032-66312-8: £130
eBook: 978-1-032-69067-4

* For full contents and more information, visit: www.routledge.com/9781032663128

Lozi, Hénon and Belykh Chaotic Attractors

New Results Fifty Years On



Edited by **René Lozi, Lyudmila Efremova, Mohammed-Salah Abdelouahab, Safwan El Assad**

Over the past fifty years, the development of chaotic dynamical systems theory and its subsequent wide applicability in science and technology has been an extremely important achievement of modern mathematics. Chaotic attractors are not a fleeting curiosity, and their continued study is important for the progress of mathematics. This book collects several of the new relevant results on the most important of them: the Lozi, Hénon and Belykh attractors. The chapters in this book were originally published in Journal of Difference Equations and Applications.

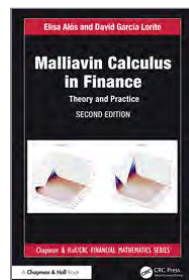
CRC Press
December 2024:274
Hb: 978-1-032-94042-7: £135

* For full contents and more information, visit: www.routledge.com/9781032940427

2ND EDITION

Malliavin Calculus in Finance

Theory and Practice



Elisa Alos Universitat Pompeu Fabra, Spain, **David Garcia Lorite**

Series: Chapman and Hall/CRC Financial Mathematics Series

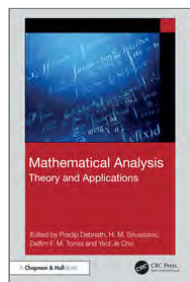
Malliavin Calculus in Finance: Theory and Practice, Second Edition introduces the study of stochastic volatility (SV) models via Malliavin Calculus. This book aims to bridge the gap between theory and practice and demonstrate the practical value of Malliavin calculus. It offers readers the chance to discover an easy-to-apply tool that allows us to recover, unify, and generalize several previous results in the literature on stochastic volatility modeling related to the vanilla, the forward, and the VIX implied volatility surfaces.

Chapman & Hall
December 2024:384
Hb: 978-1-032-63630-6: £100

* For full contents and more information, visit: www.routledge.com/9781032636306

Mathematical Analysis

Theory and Applications



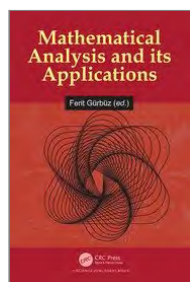
Edited by **Pradip Debnath**, H M Srivastava Uni. of Victoria, Canada, **Delfim F. M. Torres**, Yeol Je Cho

This book provides an overview of the most up-to-date developments in the field, presenting original contributions and surveys from a spectrum of respected academics. Readers will discover numerous valuable tools and techniques to enhance their understanding of recent advancements in mathematical analysis and its applications. Each chapter highlights new research directions, making this book suitable for graduate students, faculty, and researchers with an active interest in the development of mathematical analysis and its practical implementations. Minimal prerequisites in analysis, topology, and functional analysis are required for readers to fully benefit from the content.

Chapman & Hall
December 2024:398
Hb: 978-1-032-86244-6: £120

* For full contents and more information, visit: www.routledge.com/9781032862446

Mathematical Analysis and its Applications



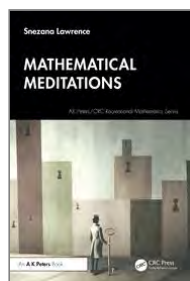
Edited by **Ferit Gürbüz** Kırklareli University, Turkey

The book covers contemporary topics in mathematical analysis and its applications, and provides readers a better understanding of discussed research problems by presenting related developments in reasonable details. It strives to bring scientists, researchers and scholars together on a common platform.

CRC Press
December 2024:314
Hb: 978-1-032-64245-1: £125

* For full contents and more information, visit: www.routledge.com/9781032642451

Mathematical Meditations



Snezana Lawrence Middlesex University, UK

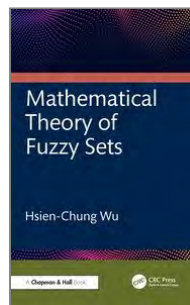
Series: *AK Peters/CRC Recreational Mathematics Series*

The Meditations in this book are the product of thousands of years of mathematical discourse. As you read through the book and work through the various exercises, you will discover new mechanisms that allow you to contemplate and understand some complex mathematical principles. However, the focus will always be wider than a mere dry comprehension of theory, as you will be encouraged to meditate upon the deeper intrinsic beauty of mathematics and what it can reveal to us about the world around us.

A K Peters/CRC Press
February 2025:192
Pb: 978-1-032-24906-3: £22.99
Hb: 978-1-032-24907-0: £150

* For full contents and more information, visit: www.routledge.com/9781032249063

Mathematical Theory of Fuzzy Sets



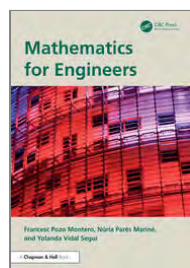
Hsien-Chung Wu

This book presents the mathematical theory of non-normal fuzzy sets such that it can be rigorously used as a basic tool to study engineering and economic problems under a fuzzy environment. It may also be used as a textbook at the graduate level, or as a reference for researchers. The book explores the current state of affairs in set operations of fuzzy sets, arithmetic operations of fuzzy interval and fuzzification of crisp functions, which are frequently adopted to model engineering and economic problems with fuzzy uncertainty.

Chapman & Hall
December 2024:642
Hb: 978-1-032-90584-6: £190

* For full contents and more information, visit: www.routledge.com/9781032905846

Mathematics for Engineers



Francesc Pozo Montero Universitat Politècnica de Catalunya, **Núria Parés Mariné** Universitat Politècnica de Catalunya, **Yolanda Vidal Seguí** Universitat Politècnica de Catalunya

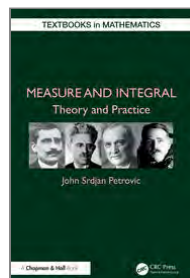
Mathematics for Engineers offers a comprehensive treatment of the core mathematical topics required for a modern engineering degree. The book begins with an introduction to the basics of mathematical reasoning and builds up the level of complexity as it progresses. The approach of the book is to build understanding through engagement, with numerous exercises and illuminating examples throughout the text design to foster a practical understanding of the topics under discussion.

Chapman & Hall
March 2025:680
Hb: 978-1-032-50544-2: £105

* For full contents and more information, visit: www.routledge.com/9781032505442

Measure and Integral

Theory and Practice



John Srdjan Petrovic Western Michigan University, Kalamazoo, USA

Series: *Textbooks in Mathematics*

This accessible introduction to the topic covers the theory of measure and integral, as introduced by Lebesgue and developed in the first half of the 20th century. It leads naturally to Banach spaces of functions and linear operators acting on them. This material is typically covered in a graduate course and is almost always treated in an abstract way, with little or no motivation. The author employs a plethora of examples and exercises and strives to motivate every concept with its historical background. This textbook is accessible to a wider range of students, including at the undergraduate level.

Chapman & Hall
January 2025:530
Hb: 978-1-032-71242-0: £84.99

* For full contents and more information, visit: www.routledge.com/9781032712420

2ND EDITION

Measure Theory and Fine Properties of Functions, Revised Edition



Lawrence Craig Evans University of California, Berkeley, USA

Series: Textbooks in Mathematics

This popular textbook provides a detailed examination of the central assertions of measure theory in n -dimensional Euclidean space. The book emphasizes the roles of Hausdorff measure and capacity in characterizing the fine properties of sets and functions. This book gathers together the essentials of real analysis on $\mathbb{R}^n$, with particular emphasis on integration and differentiation. This widely popular treatment has been updated to address all needed corrections and minor edits from the previous Revised Edition. The book includes many interesting topics working mathematical analysts need to know, but ones rarely taught.

Chapman & Hall
March 2025:344
Hb: 978-1-032-94644-3: **£68.99**

* For full contents and more information, visit: www.routledge.com/9781032946443

Non-Newtonian Sequence Spaces with Applications



Feyzi Başar İnönü University, Malatya, Turkey, **Bipan Hazarika**

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

Non-Newtonian Sequence Spaces with Applications presents an alternative to the usual calculus based on multiplication instead of addition.

Chapman & Hall
April 2025:176
Hb: 978-1-032-98890-0: **£155**

* For full contents and more information, visit: www.routledge.com/9781032988900

Modern Computational Methods for Fractional Differential Equations



Hossein Jafari, **Haleh Tajadodi**, **Yusuf S. Gasimov**

Modern Computational Methods for Fractional Differential Equations provides a comprehensive introduction to the fundamentals of fractional calculus. Covering a range of analytical and numerical methods specifically designed for fractional calculus problems, the book explains the step-by-step implementation and computational aspects of these methods. With practical examples, case studies, and numerous interesting and novel problems, readers of this book will feel empowered to effectively apply analytical and numerical techniques to solve fractional calculus problems.

Chapman & Hall
April 2025:168
Hb: 978-1-032-75043-9: **£120**

* For full contents and more information, visit: www.routledge.com/9781032750439

4TH EDITION

Probability, Statistics, and Reliability for Engineers and Scientists



Bilal Ayyub University of Maryland, College Park, USA, **Richard H. McCuen** University of Maryland, College Park, USA

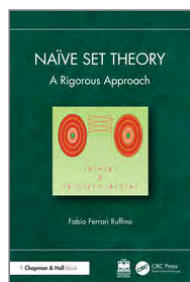
The goal of this popular and proven book is to introduce the fundamentals of probability, statistics, reliability, and risk methods to engineers and scientists for the purpose of data and uncertainty analysis and modeling in support of decision making. Probability, Statistics, and Reliability for Engineers and Scientists, here in its fourth edition, is a very popular textbook. Ultimately, readers found its content of great value in problem solving and decision making, particularly in practical applications.

CRC Press
February 2025:624
Hb: 978-1-032-96771-4: **£99.99**

* For full contents and more information, visit: www.routledge.com/9781032967714

Naïve Set Theory

A Rigorous Approach



Fabio Ferrari Ruffino

This book aims to provide a complete and unitary presentation of naive set theory as the foundation of the whole mathematics. Suitable for undergraduate students, this book focuses on the main foundational issues, trying to clarify explicitly what is (necessarily) assumed as intuitively known and what is rigorously founded on more elementary concepts. It analyses in detail the nature of natural numbers, both as meta-theoretical objects and through their set-theoretical model.

Chapman & Hall
February 2025:244
Hb: 978-1-032-93304-7: **£89.99**

* For full contents and more information, visit: www.routledge.com/9781032933047

Recent Improvements in the Theory of Chaotic Attractors



Edited by **René Lozi**, **Lyudmila Efremova**, **Michal Pluháček**

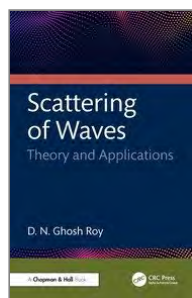
The theory of chaotic attractors has experienced exceptional development over the last fifty years since the revelation of chaos in mathematics (invented by James Yorke) and symbolized by the "butterfly effect". This book presents some exceptional developments in chaotic attractor theory encompassing several new directions of research such as three-dimensional axiom A-diffeomorphisms, Shilnikov attractors, dendrites and finite graphs. The theory of chaotic attractor is also used as a core for evolutionary algorithms and metaheuristic optimizers in this volume. The chapters in this book were originally published in Journal of Difference Equations and Applications.

CRC Press
February 2025:263
Hb: 978-1-032-94001-4: **£135**

* For full contents and more information, visit: www.routledge.com/9781032940014

Scattering of Waves

Theory and Applications



D. N. Ghosh Roy (816)Utah Center For Advanced Imaging Research (UCAIR), Salt Lake City, USA

Scattering of Waves: Theory and Applications explores the underlying concepts, physics and mathematics of wave scattering and wave field structures and self-consistently introduces a range of topics in scalar acoustics and quantum and vector electromagnetic scattering. Primarily aimed at advanced students of physics, engineering and applied mathematics, this text will also be valuable to researchers and faculties in electromagnetics, acoustics and quantum mechanics.

Chapman & Hall
January 2025:488
Hb: 978-1-498-72901-7: £130

* For full contents and more information, visit: www.routledge.com/9781498729017

Set Theory

An Introduction to Axiomatic Reasoning



Robert André

Series: Textbooks in Mathematics

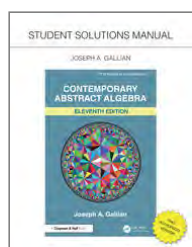
Contemporary students of mathematics differ considerably from those of half a century ago. In spite of this, many textbooks written and now considered to be "classics" decades ago are still prescribed for students today. These texts are not suitable for today's students. This text is meant for and written to today's mathematics students. Set theory is a pure mathematics endeavour in the sense that it seems to have no immediate applications; yet the knowledge and skills developed in such a course can easily branch out to various fields of both pure mathematics and applied mathematics countered when using formal logic.

Chapman & Hall
March 2025:448
Hb: 978-1-032-95482-0: £74.99

* For full contents and more information, visit: www.routledge.com/9781032954820

11TH EDITION

Student Solutions Manual for Gallian's Contemporary Abstract Algebra



Joseph A. Gallian

Series: Textbooks in Mathematics

Redesigned for the 11th edition of Contemporary Abstract Algebra, Student Solutions Manual, written by the author, has comprehensive solutions for all odd-numbered exercises and a large number of even-numbered exercises. This Manual also offers many alternative solutions to those appearing in the text. These will provide the student with a better understanding of the material. This is the only available student solutions manual prepared by the author of Contemporary Abstract Algebra, Eleventh Edition and the only official one. It is designed to supplement the text and the author's original approach to instruction.

Chapman & Hall
February 2025:130
Pb: 978-1-032-77957-7: £44.99

* For full contents and more information, visit: www.routledge.com/9781032779577

2ND EDITION

Teaching and Learning Mathematics Online



Edited by **James P. Howard, II** Johns Hopkins Applied Physics Laboratory, USA, **John F. Beyers** University of Maryland Global Campus, USA

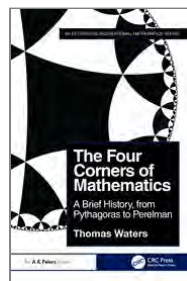
Teaching and Learning Mathematics Online, Second Edition continues to present meaningful and practical solutions for teaching mathematics and statistics online. It focuses on the problems observed by mathematics instructors currently working in the field who strive to hone their craft and share best practices with the community. The book provides a set of standard practices, improving the quality of online teaching and the learning of mathematics. With nine brand new chapters exploring new technological opportunities and reflecting on the lessons of COVID-19, instructors will benefit from learning new techniques and approaches to delivering content.

Chapman & Hall
May 2025:650
Pb: 978-1-032-50453-7: £49.99
Hb: 978-1-032-49775-4: £140

* For full contents and more information, visit: www.routledge.com/9781032504537

The Four Corners of Mathematics

A Brief History, from Pythagoras to Perelman



Thomas Waters

Series: AK Peters/CRC Recreational Mathematics Series

The Four Corners of Mathematics: A Brief History, from Pythagoras to Perelman describes the historical development of the 'big ideas' in mathematics in an accessible and intuitive manner. In delivering this bird's-eye view of the history of mathematics, the author uses engaging diagrams and images to communicate complex concepts while also exploring the details of the main results and methods of high-level mathematics. As such, this book involves some equations and terminology, but the only assumption on the readers' knowledge is A-level or high school mathematics.

A K Peters/CRC Press
December 2024:294
Pb: 978-1-032-59498-9: £19.99
Hb: 978-1-032-59651-8: £120
eBook: 978-1-003-45559-2

* For full contents and more information, visit: www.routledge.com/9781032594989

The Improved Residual Power Series Method for Boundary Value Problems



Abdullah Dawar , Hamid Khan

This book introduces a semi-analytical method, Improved Residual Power Series Method (IRPSM) for solving boundary value problems (BVPs). Unlike traditional numerical and analytical techniques, Improved Residual Power Series Method (IRPSM) offers quick convergence and minimal computational time, avoiding the pitfalls of round-off errors, linearization, perturbation, and discretization. This innovative approach has been rigorously compared with existing methods, demonstrating superior accuracy and efficiency. The book is meant for scholars, researchers, and students in mathematics, engineering, and physics.

Chapman & Hall
April 2025:208
Hb: 978-1-032-95654-1: £155

* For full contents and more information, visit: www.routledge.com/9781032956541

The Secret World of Flexagons

Fascinating Folded Paper Puzzles



Scott Sherman , Yossi Elran , Ann Schwartz

Series: AK Peters/CRC Recreational Mathematics Series

The hexaflexagon is a folded paper strip of colored triangles that has long delighted people with how it "magically" changes its appearance when "flexed". This hands-on, comprehensive book goes beyond the hexaflexagon, the standard version of this folded puzzle, exponentially expanding this barely explored field as it brings new options and fresh insights to light. Written in a clear, easy-to-understand, and conversational style; and enhanced with challenges and tips to broaden your flexagon skills and spark creativity, this book is a must for flexagon enthusiasts, teachers, students, libraries, mathematicians and everyone who loves to solve a good puzzle.

A K Peters/CRC Press

March 2025:256

Pb: 978-1-032-55383-2: **£22.99**

Hb: 978-1-032-56047-2: **£155**

* For **full contents** and more information, visit: www.routledge.com/9781032553832

Theory of Stochastic Integrals



Jorge A. León

In applications of stochastic calculus, there are phenomena that cannot be analyzed through the classical Itô theory. It is necessary, therefore, to have a theory based on stochastic integration with respect to these situations. Theory of Stochastic Integrals aims to provide the answer to this problem by introducing readers to the study of some interpretations of stochastic integrals with respect to stochastic processes that are not necessarily semimartingales, such as Volterra Gaussian processes, or processes with bounded p-variation among which we can mention fractional Brownian motion and Riemann-Liouville fractional process.

Chapman & Hall

April 2025:486

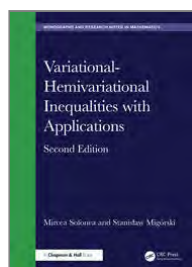
Pb: 978-1-032-77812-9: **£74.99**

Hb: 978-1-032-77810-5: **£190**

* For **full contents** and more information, visit: www.routledge.com/9781032778129

2ND EDITION

Variational-Hemivariational Inequalities with Applications



Mircea Sofonea University of Perpignan, France,
Stanislaw Migorski Jagiellonian University in Krakow, Poland

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

This book represents the outcome of the cross-fertilization of nonlinear functional analysis and mathematical modelling, demonstrating its application to solid and contact mechanics. Based on authors' original results, the book illustrates the use of various functional methods (including monotonicity, pseudomonotonicity, compactness, penalty and fixed-point methods) in the study of various nonlinear problems in analysis and mechanics. Written for mathematicians, applied mathematicians, engineers and scientists, this book is also a valuable tool for graduate students and researchers in nonlinear analysis, mathematical modelling, mechanics of solids, and contact mechanics.

Chapman & Hall

December 2024:350

Hb: 978-1-032-58716-5: **£155**

eBook: 978-1-003-45278-2

* For **full contents** and more information, visit: www.routledge.com/9781032587165

2D Metals

Fundamentals, Emerging Applications, and Challenges



Edited by **Ram Gupta**

2D Metals: Fundamentals, Emerging Applications, and Challenges delves into the state-of-the-art advancements in utilizing 2D metals for emerging applications, encompassing a comprehensive overview of synthetic methodologies and characterization techniques provided by leading experts in the field. This book explores the influence of structural modifications on the properties of 2D metals and addresses the myriad challenges associated with their burgeoning applications. Each chapter offers invaluable insights, rendering this text an indispensable resource for students while furnishing researchers and industry professionals with novel guidance and perspectives.

CRC Press
November 2024:312
Pb: 978-1-032-64498-1: **£45.99**
Hb: 978-1-032-63855-3: **£200**
eBook: 978-1-032-64500-1

* For full contents and more information, visit: www.routledge.com/9781032644981

Anisotropy of Metamaterials

Beyond Conventional Paradigms



Vladimir Mityushev, Tatjana Gric, Radoslaw Antoni Kycia, Natalia Rylko

Series: *Series in Optics and Optoelectronics*

Anisotropy of Metamaterials: Beyond Conventional Paradigms provides a comprehensive introduction to the mathematical modelling of metamaterials based on the macroscopic complex-valued permittivity tensor of dispersed random composites. Key topics include physical and mathematical theory, computer simulations, constructive homogenization, classification of dispersed random composites, and their applications in cancer recognition. Image processing and machine learning algorithms are used. The book also discusses the precision of various effective medium approximations, including Bruggeman and Maxwell-Garnett formulas.

CRC Press
April 2025:304
Hb: 978-1-032-61800-5: **£120**

* For full contents and more information, visit: www.routledge.com/9781032618005

Applications of Accelerators in the Quantum Technology Era



Edited by **David Jamieson, Andrew Anthony Bettiol, André Schleife**

This book explores new experimental techniques and theoretical models to deepen an understanding of radiation effects and ion interaction processes in order to design materials for devices for the emerging quantum technology era. Applications include tailored sensors that respond to ionizing radiation and other electromagnetic phenomena; sensors with high radiation hardness; and materials that contain specific engineered defects with desirable optical, magnetic or electrical properties.

CRC Press
November 2024:174
Hb: 978-1-032-31058-9: **£99.99**
eBook: 978-1-003-30788-4

* For full contents and more information, visit: www.routledge.com/9781032310589

Applications of Big Data and Machine Learning in Galaxy Formation and Evolution



Tsutomu T. Takeuchi

Series: *Series in Astronomy and Astrophysics*

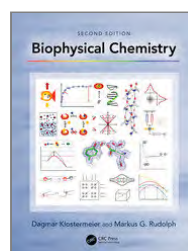
As investigations into our Universe become more complex, in-depth, and widespread, galaxy surveys are requiring state-of-the-art data scientific methods to analyze them. This book provides a practical introduction to big data in galaxy formation and evolution, introducing the astrophysical basics, before delving into the latest techniques being introduced to astronomy and astrophysics from data science.

CRC Press
April 2025:408
Hb: 978-0-367-61139-2: **£74.99**

* For full contents and more information, visit: www.routledge.com/9780367611392

2ND EDITION

Biophysical Chemistry



Dagmar Klostermeier University of Muenster, Biophysical Chemistry, **Markus G. Rudolph**

This second edition has been fully updated throughout with novel techniques, with a new chapter on advances in cryo-electron microscopy and exciting new content throughout on big data techniques, structural bioinformatics, systems biology and interaction networks, and artificial intelligence and machine learning. The book is organized in four parts, covering thermodynamics, kinetics, molecular structure and stability, and biophysical methods. Cross-references within and between these parts emphasize common themes and highlight recurrent principles.

CRC Press
January 2025:952
Hb: 978-1-032-06083-5: **£76.99**

* For full contents and more information, visit: www.routledge.com/9781032060835

CAD-Based Optical Design with Quadoo



Rafael González-Acuña

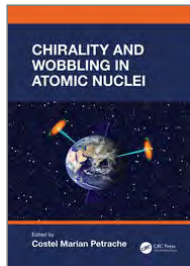
Series: *Series in Optics and Optoelectronics*

In CAD-based optical design with Quadoo, we explore how optical design entails evaluating application requirements and creating optical systems specifically engineered to meet the exact needs of optical instruments. This extensive system may include optics, light sources, sensors, electronic boards, display devices, and other components. Primarily, optical design focuses on determining the shapes, positions, and materials of lenses and mirrors to ensure the optical system adheres to indicated criteria and specifications. To meet specific requirements, lens designers must use optical design software as an aid for their challenging task.

CRC Press
February 2025:434
Hb: 978-1-032-82809-1: **£94.99**

* For full contents and more information, visit: www.routledge.com/9781032828091

Chirality and Wobbling in Atomic Nuclei



Edited by **Costel Marian Petrache**

The book provides an introduction to both theoretical and experimental results on chirality and wobbling in atomic nuclei. It details the achievements in the study of chirality over the past 25 years since the first prediction of this mode of collective motion in nuclei, as well as those on the wobbling motion.

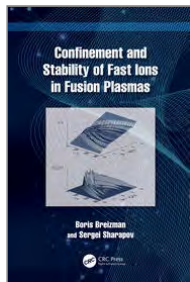
CRC Press

December 2024:340

Hb: 978-1-032-69128-2: £140

* For full contents and more information, visit: www.routledge.com/9781032691282

Confinement and Stability of Fast Ions in Fusion Plasmas



Boris Breizman, Sergei Sharapov Culham Centre for Fusion Energy

This book explores the outstanding and rather novel diagnostics of the fast ions and fast ion-driven instabilities coupled to modern theory of near-critical nonlinear wave-particle systems with the particle source and wave damping. Such a theory was first developed by H.L. Berk and B.N. Breizman in mid-90th, and it delivered an extra-ordinary number of results successfully explaining the experimentally observed energetic ion-driven instabilities.

CRC Press

March 2025:178

Hb: 978-1-032-18533-0: £100

* For full contents and more information, visit: www.routledge.com/9781032185330

Design, Development and Analysis of Lunar Crescent Visibility Criterion With Python



Muhamad Syazwan Bin Faid, Mohd Saiful Anwar Mohd Nawawi, Mohd Hafiz Mohd Saadon

This book explores the development of an analysis tool for lunar crescent visibility criterion using an integrated lunar crescent visibility database. The analysis tool, called HilalPy and HilalObs, was developed in the form of a Python library, so that it can be integrated into other software and webpages to enable deployment into various operating systems. This book will provide useful insights for the future development of lunar crescent visibility criterion, particularly for calendrical purposes.

CRC Press

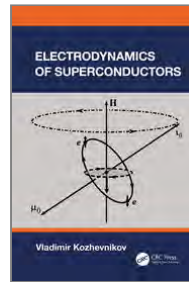
December 2024:144

Hb: 978-1-032-86692-5: £49.99

eBook: 978-1-003-53619-2

* For full contents and more information, visit: www.routledge.com/9781032866925

Electrodynamics of Superconductors



Vladimir Kozhevnikov

The book offers a fresh look at electrodynamics of continuous media with detailed description of thermal and electromagnetic properties of superconductors, emphasising physical meaning of concepts and principles without excessive mathematics. To facilitate understanding, it is accompanied by problems and worked solutions.

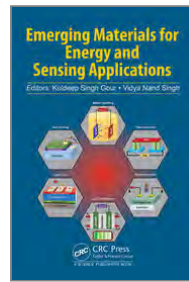
CRC Press

December 2024:204

Hb: 978-1-032-40644-2: £100

* For full contents and more information, visit: www.routledge.com/9781032406442

Emerging Materials for Energy and Sensing Applications



Edited by **Kuldeep Singh Gour** CSIR-National Metallurgical Laboratory, **Vidya Nand Singh** CSIR-National Physical Laboratory

The proposed book explores the latest advancements in materials science for energy generation, storage, and sensing technology. It covers various topics, including nanomaterials, 2D materials, thin film, quantum dots, solar cells, gas sensors, thermoelectric generators, photodetectors, water splitting, etc. This book highlights emerging materials' applications, making it an invaluable resource for researchers, engineers, and students looking to stay up-to-date in this rapidly growing field. Its focus on cutting-edge materials and their potential to develop energy harnessing and information gathering provides a deep insight into the exciting world of innovative materials.

CRC Press

February 2025:162

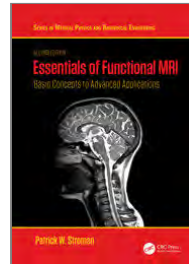
Hb: 978-1-032-64619-0: £125

* For full contents and more information, visit: www.routledge.com/9781032646190

2ND EDITION

Essentials of Functional MRI

Basic Concepts to Advanced Applications



Patrick W. Stroman

Series: *Series in Medical Physics and Biomedical Engineering*

Essentials of Functional MRI is explained from the basic theory underlying magnetic resonance imaging. This includes how it can be used to detect dynamic variations in neural activity to become "functional" MRI, and how fMRI can be used for a variety of applications. The reader will gain an understanding of how fMRI is currently used, its limitations, and how it is still developing. This is achieved by explaining the core concepts and building on them to explain how fMRI data are acquired and what physiological information they provide.

CRC Press

November 2024:400

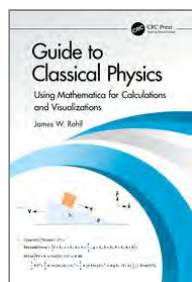
Hb: 978-1-032-87382-4: £115

eBook: 978-1-003-53243-9

* For full contents and more information, visit: www.routledge.com/9781032873824

Guide to Classical Physics

Using Mathematica for Calculations and Visualizations



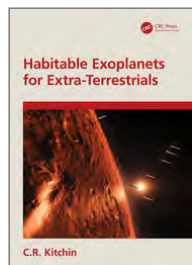
James W. Rohlff

This is a "how to guide" for making introductory calculations in classical physics for undergraduates studying the subject. The calculations are performed in Mathematica, and stress graphical visualization, units, and numerical answers. The techniques show the student how to learn the physics without being hung up on the math.

CRC Press
December 2024:206
Pb: 978-1-032-76976-9: **£45.99**
Hb: 978-1-032-77241-7: **£115**
eBook: 978-1-003-48198-0

* For full contents and more information, visit: www.routledge.com/9781032769769

Habitable Exoplanets for Extra-Terrestrials



C.R. Kitchin

This book explores the questions of What, Why, When, How and Where might we find extra-Terrestrials (a.k.a. Aliens) and their habitats throughout the Universe– and Who might they be? Starting from ourselves and the Earth and eventually speculating about life forms that might span multiple Universes, it provides an accessible introduction to extra-terrestrial life, the search for extra-terrestrial intelligence, and exoplanets.

CRC Press
December 2024:376
Hb: 978-1-032-15948-5: **£52.99**

* For full contents and more information, visit: www.routledge.com/9781032159485

Handbook of Carbon Sensors

Understanding and Applications



Edited by **JG Manjunatha**

Series: Series in Sensors

In an era dominated by environmental challenges and technological advancements, the need for precise and efficient monitoring tools has become paramount. Among these tools, carbon sensors stand as vanguards, revolutionizing our approach to sensing and detection. "Handbook of Carbon Sensors: Understanding and Applications" provides readers with a comprehensive and accessible guide to the world of carbon sensing.

CRC Press
May 2025:384
Hb: 978-1-032-81208-3: **£190**

* For full contents and more information, visit: www.routledge.com/9781032812083

2ND EDITION

Hands-On Accelerator Physics Using MATLAB®



Volker Ziemann Department of Physics and Astronomy, Uppsala University, Sweden

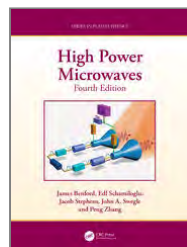
Hands-On Accelerator Physics Using MATLAB(R), second edition provides a broad introduction into the physics and the technology of particle accelerators from synchrotron light sources to high-energy colliders. It covers the design of the beam optics, of magnets, and of radio-frequency systems, followed by a discussion of beam instrumentation and correction algorithms. Later chapters deal with the interaction of beams with targets, the emission of synchrotron radiation, and with intensity limitations.

CRC Press
March 2025:424
Hb: 978-1-032-72696-0: **£120**

* For full contents and more information, visit: www.routledge.com/9781032726960

4TH EDITION

High Power Microwaves



James Benford Microwave Sciences, Lafayette, California, USA, **Edl Schamiloglu** University of New Mexico, Albuquerque, USA, **Jacob Coty Stephens**, **John A. Swegle**, **Peng Zhang**

Series: Series in Plasma Physics

Following in the footsteps of its popular predecessors, High Power Microwaves, Fourth Edition continues to provide a wide-angle, integrated view of the field of high power microwaves (HPMs). This fourth edition includes significant updates in every chapter as well as a new chapter on High Power Amplifiers. Written by a range of experimentalists, theorists, and applied theorists, the book offers complementary perspectives on different source types.

CRC Press
December 2024:432
Hb: 978-1-032-25046-5: **£130**

* For full contents and more information, visit: www.routledge.com/9781032250465

2ND EDITION

Holography

Principles and Applications



Raymond K. Kostuk University of Arizona, Tucson, USA

Series: Series in Optics and Optoelectronics

Holography: Principles and Applications provides a comprehensive overview of the theory, practical considerations, and applications of holography. This book conveys a foundation for others to use holography and holographic concepts in a variety of important applications. Special emphasis is placed on the analysis of the imaging and diffraction efficiency properties of holographic optical elements, solar conversion systems, and augmented reality eyewear. A comprehensive overview of holographic materials is also given as this area is critical for implementing successful holographic designs. The important areas of digital and computer-generated holography are also presented.

Taylor & Francis
December 2024:450
Hb: 978-1-032-60618-7: **£135**

* For full contents and more information, visit: www.routledge.com/9781032606187

2ND EDITION

Introduction to Fluorescence



David M. Jameson University of Hawaii, Manoa, USA

This Second Edition of Introduction to Fluorescence helps readers acquire a sound understanding of basic fluorescence theory and practice. It describes general principles in a straightforward way and uses examples from a variety of disciplines to demonstrate them. Since the 1st Edition, significant advances in the field have appeared. For examples phasors, both lifetime and spectral phasors, have become very popular and so a chapter dedicated to this topic has been added. Furthermore, significant advances have been made in fluorescence microscopy methods, including super-resolution and single molecule techniques.

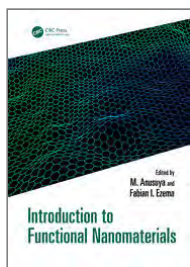
CRC Press

March 2025:376

Hb: 978-1-032-26171-3: **£69.99**

* For full contents and more information, visit: www.routledge.com/9781032261713

Introduction to Functional Nanomaterials



Edited by **M. Anusuya , Fabian I. Ezema** University of Nigeria

This book provides a comprehensive review of nanosensors, smart nanomaterials, nanopolymers, and nanotubes. Chapters cover their synthesis and characteristics, production methods, and applications, with specific sections exploring nanoelectronics and electro-optic nanotechnology, nanostructures, and nanodevices.

CRC Press

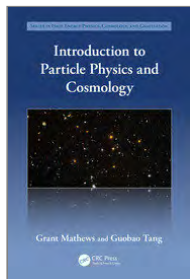
November 2024:426

Hb: 978-1-032-80010-3: **£190**

eBook: 978-1-003-49543-7

* For full contents and more information, visit: www.routledge.com/9781032800103

Introduction to Particle Physics and Cosmology



Grant Mathews , Guobao Tang

Series: Series in Particle Physics, Cosmology and Gravitation

This textbook provides an accessible introduction to the basic concepts of relativistic cosmology and the standard big bang model of cosmology, along with an introduction to quantum field theory and the standard model of particle physics. Readers are guided through the key concepts associated with the standard model of cosmology and the standard model of particle physics, providing them with the basic foundation needed to understand current research and literature on the physics of the early universe and modern particle physics.

CRC Press

February 2025:196

Pb: 978-1-032-65703-5: **£59.99**

Hb: 978-1-032-68353-9: **£170**

* For full contents and more information, visit: www.routledge.com/9781032657035

Introductory Solid State Physics

An Emphasis on Magnetism



David C. Johnston

Introductory Solid State Physics: An Emphasis on Magnetism acts as a supplement to students tackling solid state physics at both the undergraduate and graduate level. The BCS theory of superconductivity is not included in undergraduate-level books, because the theory is derived at the graduate level. However, this book uses the equations derived by BCS to calculate the thermodynamic properties of superconductors such as the temperature dependence of the heat capacity using techniques accessible to undergraduates.

CRC Press

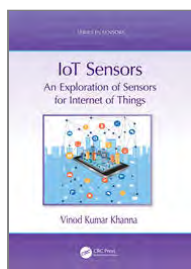
May 2025:192

Hb: 978-1-032-98263-2: **£74.99**

* For full contents and more information, visit: www.routledge.com/9781032982632

IoT Sensors

An Exploration of Sensors for Internet of Things



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

Series: Series in Sensors

This book introduces the basics of internet of things (IoT), and explores the foundational role of sensors in internet-of-things applications. Internet of things is a network of devices and objects: sensors, actuators, hardware, software, human beings, domestic appliances, health monitoring equipment, and other things connected to the internet, which is designed to operate in a coordinated fashion to receive, process and interpret signals and take appropriate action.

CRC Press

November 2024:372

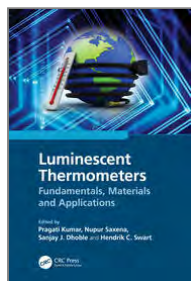
Hb: 978-1-032-44780-3: **£130**

eBook: 978-1-003-37444-2

* For full contents and more information, visit: www.routledge.com/9781032447803

Luminescent Thermometers

Fundamentals, Materials and Applications



Edited by **Pragati Kumar** Central Uni of Jammu, India, **Nupur Saxena** IIT Jammu, India, **Sanjay J. Dhoble , Hendrik C. Swart**

Luminescent Thermometers deals with all the aspects of the subject from principles of methods to their applications in different areas. The book familiarizes the readers with the fundamentals of luminescence thermometry, materials used for the development of different luminescence thermometers viz. metal organic frameworks (MOFs) including lanthanide doped MOFs referred as LOFs, quantum dots (QDs), rare earth doped phosphors and upconversion phosphors. Further some advanced and next generation approaches for luminescent thermometers such as carbon-based materials, nano-composites, double perovskites and garnet systems are assimilated.

CRC Press

December 2024:338

Hb: 978-1-032-62808-0: **£130**

* For full contents and more information, visit: www.routledge.com/9781032628080

2ND EDITION

Modeling and Simulation of Everyday Things, 2e



Michael Roth

This Second Edition is a wonderful confluence of code development of Python and C++ applications and will cultivate broad perspective in the readership through having translations of major programs available in Python, C++ and FORTRAN. In addition to leveraging the best of the three languages, the readership can explore versatility in visualization by using native Python graphics as well as POV Raytracer and third-party animation tools. We approach modeling of a system by introducing the theoretical framework of the system, followed by its discretized form, then with narrated programs and sample results that also appear in the online repository.

CRC Press

April 2025:384

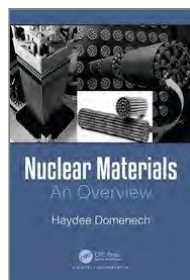
Pb: 978-1-032-99504-5: **£45.99**

Hb: 978-1-032-99499-4: **£140**

* For full contents and more information, visit: www.routledge.com/9781032995045

Nuclear Materials

An Overview



Haydee Domenech

This book reviews the critical scope of nuclear materials, which play an essential role in decreasing greenhouse gas emissions. It traces historical landmarks from the years preceding World War II to the atomic bomb era. Key topics covered include the concept of nuclear materials and their connection to the Non-Proliferation Treaty (NPT), the steps of the nuclear fuel cycle, and advanced reactor technologies. Additionally, the book addresses safety and security considerations, including radioactive waste and spent fuel management.

CRC Press

November 2024:206

Hb: 978-1-032-35368-5: **£115**

eBook: 978-1-003-32655-7

* For full contents and more information, visit: www.routledge.com/9781032353685

Oil Well Production Mechanism

Training Manual on Well Production Operations for Non-production Engineers (Oil and Gas Production Operations)



Mohammed Ismail Iqbal , Vamsi Krishna Kudapa

Series: River Publishers Series in Energy Sustainability and Efficiency

This is a comprehensive guide to the intricacies of the oil and gas industry, focusing specifically on production processes. Written by industry experts, the book offers valuable insights into the technical aspects, environmental considerations, and economic factors associated with oil and gas exploration and extraction. Oil Well Production Mechanism serves as a valuable resource for professionals, students, and enthusiasts seeking a comprehensive understanding of the oil and gas industry's production processes. It combines technical knowledge with practical insights, making it an essential read for anyone involved or interested in this dynamic field.

River Publishers

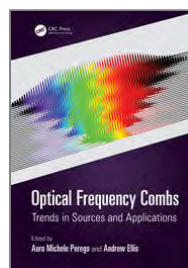
February 2025:484

Hb: 978-8-770-04203-1: **£115**

* For full contents and more information, visit: www.routledge.com/9788770042031

Optical Frequency Combs

Trends in Sources and Applications



Edited by Auro Michele Perego , Andrew Ellis

The book aims at showcasing recent advances through contributions by key players in a multifaceted research ecosystem, and at the same time at providing a valuable service to the community, by offering an as much comprehensive as possible review which, at the same time, highlights challenges to be solved and promising future directions.

CRC Press

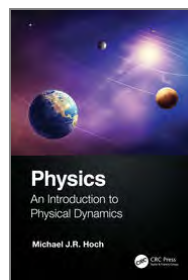
November 2024:504

Hb: 978-1-032-54808-1: **£180**

* For full contents and more information, visit: www.routledge.com/9781032548081

Physics

An Introduction to Physical Dynamics



Michael J.R. Hoch

"Physics: An Introduction to Physical Dynamics" provides an accessible introduction to the fundamentals of physics for science and engineering undergraduates who are studying elementary physics. This textbook contains twelve chapters with accompanying problem sets, and deals with the dynamical properties of a variety of physical systems.

CRC Press

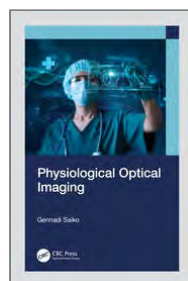
February 2025:224

Pb: 978-1-032-76750-5: **£45.99**

Hb: 978-1-032-77947-8: **£115**

* For full contents and more information, visit: www.routledge.com/9781032767505

Physiological Optical Imaging



Gennadi Saiko

Physiological optical imaging is a group of emerging technologies that aim to provide healthcare practitioners and biomedical researchers with information about tissue physiology or pathophysiology using approaches different from traditional medical imaging (PET, ultrasound, MRI, X-ray, or CT scan). This book provides a comprehensive review of this group of technologies, combining a current medical literature review with an overview of cutting-edge technologies, the physics behind them, and common features across different technologies.

CRC Press

December 2024:272

Hb: 978-1-032-76778-9: **£100**

* For full contents and more information, visit: www.routledge.com/9781032767789

2ND EDITION

Primer on Radiation Oncology Physics

Video Tutorials with Textbook and Problems



Eric Ford Department of Radiation Oncology, University of Washington, Seattle, WA, USA

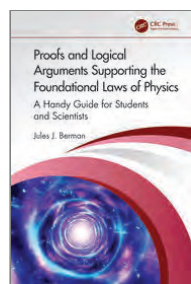
Primer on Radiation Oncology Physics: Video Tutorials with Textbook and Problems, now in its Second Edition, provides over 60 tutorial videos (each 15-20 minutes in length) with a companion text and is the most complete and effective introduction to medical physics available. The textbook and videos are an outgrowth of decades of Dr. Ford's teaching experience with a variety of learners from different backgrounds. They have rapidly become a must-have resource in the field and are valuable both for early learners and as a refresher for those in practice.

CRC Press
March 2025:432
Pb: 978-1-032-38291-3: **£76.99**
Hb: 978-1-032-38538-9: **£190**

* For full contents and more information, visit: www.routledge.com/9781032382913

Proofs and Logical Arguments Supporting the Foundational Laws of Physics

A Handy Guide for Students and Scientists



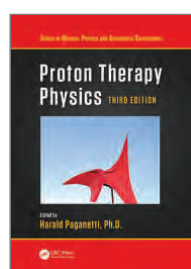
Jules J. Berman

For scientists and curious laypersons, Proofs and Logical Arguments Supporting the Foundational Laws of Physics: A Handy Guide for Students and Scientists examines the most important laws and relationships taught in science courses, attaching a short and accessible proof or logical argument for each assertion. Every person should seek to understand why we think we know what we know about the natural world. Among the essays included in this book, we will find proofs Pauli's exclusion principle, Heisenberg's uncertainty principle, the principles of special relativity, and many of the laws of physics and chemistry that no scientist should accept on blind faith alone.

CRC Press
February 2025:334
Hb: 978-1-032-85067-2: **£74.99**

* For full contents and more information, visit: www.routledge.com/9781032850672

3RD EDITION

Proton Therapy Physics

Edited by **Harald Paganetti, Ph.D.** Massachusetts General Hospital and Harvard Medical School, Boston, USA

Series: Series in Medical Physics and Biomedical Engineering

Expanding on the highly successful previous two editions, this third edition of Proton Therapy Physics has been updated throughout and includes several new chapters on "Adaptive Proton Therapy", "Imaging for Planning", "Flash Proton Therapy", and "Outcome Modelling for Patient Selection". Suitable for both newcomers in medical physics and more seasoned specialists in radiation oncology, this book provides an in-depth overview of the physics of this radiation therapy modality, eliminating the need to dig through information scattered across medical physics literature.

CRC Press
February 2025:744
Hb: 978-1-032-61086-3: **£84.99**

* For full contents and more information, visit: www.routledge.com/9781032610863

Python Experiments in Physics and Astronomy

Padraig Houlahan

Python Experiments in Physics and Astronomy acts as a resource for science and engineering students or faculty who would like to see how a diverse selection of topics can be analyzed and simulated using Python programs. The book also provides Python solutions that can be learned from and modified as needed.

CRC Press
May 2025:256
Hb: 978-1-032-98189-5: **£74.99**

* For full contents and more information, visit: www.routledge.com/9781032981895

Radioactivity

A Natural Phenomenon



Michael Wiescher

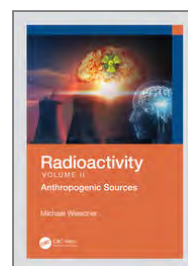
This book provides an accessible introduction to radioactivity. The first in a two-volume set, this volume is presented in two parts, covering radiation physics and natural radiation exposure. This book will be of interest to non-science undergraduates and nuclear astrophysics physics graduate students looking for an introduction to radioactivity, in addition to interested laypeople.

CRC Press
January 2025:272
Pb: 978-1-032-56400-5: **£45.99**
Hb: 978-1-032-56515-6: **£120**

* For full contents and more information, visit: www.routledge.com/9781032564005

Radioactivity

Anthropogenic Sources



Michael Wiescher

This book provides an accessible introduction to radioactivity. The second in a two-volume set, this volume is presented in two parts, covering its development and modern applications. This book will be of interest to non-science undergraduates and nuclear astrophysics physics graduate students looking for an introduction to radioactivity, in addition to interested laypeople.

CRC Press
January 2025:320
Pb: 978-1-032-56401-2: **£45.99**
Hb: 978-1-032-56516-3: **£120**

* For full contents and more information, visit: www.routledge.com/9781032564012

Radioactivity - Two-Volume Set



Michael Wiescher

These books will be of interest to non-science undergraduates and nuclear astrophysics physics graduate students looking for an introduction to radioactivity, in addition to interested laypeople.

CRC Press

January 2025:592

Pb: 978-1-032-90386-6: **£81.99**

Hb: 978-1-032-90383-5: **£175**

* For full contents and more information, visit: www.routledge.com/9781032903866

Statistical Mechanics of Liquids and Solutions

Intermolecular Forces, Structure and Surface Interactions



Roland Kjellander University of Gothenburg, Sweden

The statistical mechanical theory of liquids and solutions is a fundamental area of physical sciences with important implications in other fields of science and industrial applications. Statistical Mechanics of Liquids and Solutions: Intermolecular Forces, Structure and Surface Interactions is the second in a series of two on this subject. While the first volume introduced equilibrium statistical mechanics in general and statistical mechanics of liquids and solutions at an introductory level, the second volume presents an advanced treatment of the subject and penetrates much deeper into liquid state theory.

CRC Press

December 2024:1036

Pb: 978-1-032-89722-6: **£78.99**

* For full contents and more information, visit: www.routledge.com/9781032897226

Room Temperature Photon Detectors



Antoni Rogalski, Piotr Martyniuk, Weida Hu

Room Temperature Photon Detectors provides an overview of the performance of emerging new generation of room temperature photodetectors generally called low-dimensional solid (LDS) photodetectors among which the most important are two-dimensional (2D) materials, perovskites, and quantum dots (QDs)/nanowires (NWs) operating in a wide spectral range from the ultraviolet (UV), visible (VIS), far infrared (FIR) to terahertz (THz). The LDS reported performance at room temperature is even better than that presented for standard commercial photodetectors.

CRC Press

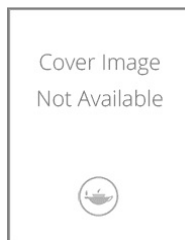
May 2025:448

Hb: 978-1-032-74571-8: **£185**

* For full contents and more information, visit: www.routledge.com/9781032745718

The Poetry of Physics

From a Quark to a Quasar



Sam Illingworth

The Poetry of Physics blends the beauty of physics with the power of poetry, taking readers from the patterns of living organisms to the reaches of the cosmos. Combining scientific insights with poetic reflections, this book is ideal for those who appreciate both science and the arts, whether they are physicists, poets, or curious minds.

CRC Press

March 2025:88

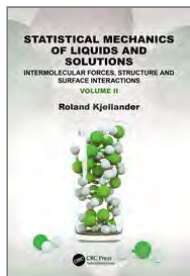
Pb: 978-1-032-84731-3: **£22.99**

Hb: 978-1-032-84733-7: **£56.99**

* For full contents and more information, visit: www.routledge.com/9781032847313

Statistical Mechanics of Liquids and Solutions

Intermolecular Forces, Structure and Surface Interactions



Roland Kjellander University of Gothenburg, Sweden

The statistical mechanical theory of liquids and solutions is a fundamental area of physical sciences with important implications in other fields of science and industrial applications. Statistical Mechanics of Liquids and Solutions: Intermolecular Forces, Structure and Surface Interactions is the second in a series of two on this subject. While the first volume introduced equilibrium statistical mechanics in general and statistical mechanics of liquids and solutions at an introductory level, the present volume presents an advanced treatment of the subject and penetrates much deeper into liquid state theory.

CRC Press

December 2024:524

Pb: 978-1-032-26162-1: **£45.99**

Hb: 978-1-032-25728-0: **£105**

* For full contents and more information, visit: www.routledge.com/9781032261621

2ND EDITION

The Quantum Physics of Atomic Frequency Standards

Recent Developments



Jacques Vanier Université de Montréal, Quebec, Canada,
Cipriana Tomescu Université de Montréal, Quebec, Canada

This new edition examines updated developments on the frequency standards, alongside content on the International System of Units (SI) and the role of atomic clocks on their base units. It also features new material on Coherent Population Trapping and new developments in the field of optical frequency standards.

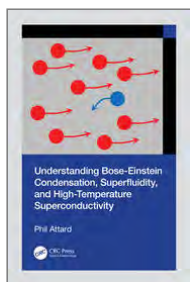
CRC Press

December 2024:528

Hb: 978-1-032-56579-8: **£230**

* For full contents and more information, visit: www.routledge.com/9781032565798

Understanding Bose-Einstein Condensation, Superfluidity, and High-Temperature Superconductivity



Phil Attard

This book presents these phenomena in terms of particles, their positions, and their momenta, giving a concrete visualisation and description that is not possible with traditional wave functions. A single approach that bridges the classical-quantum divide provides new insight into the role of particle interactions in condensation, the nature of collisions in superfluid flow, and the physical form of Cooper pairs in high-temperature superconductors.

CRC Press

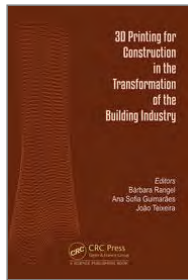
December 2024:288

Hb: 978-1-032-82393-5: **£100**

eBook: 978-1-003-50641-6

* For full contents and more information, visit: www.routledge.com/9781032823935

3D Printing for Construction in the Transformation of the Building Industry



Edited by **Bárbara Rangel** University of Porto, Portugal, **Ana Sofia Guimarães** University of Porto, Portugal, **João Teixeira**

Process automation and 3d printing (3DP) are commonplace in the industry and our homes. However, due to BI's scale and complexity, Additive Manufacturing (AM) is in its native stage. Ongoing scientific research has been providing knowledge that will simplify the integration of 3DCP in the market, exploring its materiality, technologies, and design methodologies. This book provides an overview of the latest research achievements of the design possibilities that 3DP for construction (3DC) can offer in the various fields of construction, particularly architecture and engineering.

CRC Press
November 2024:132
Hb: 978-1-032-51771-1: £115
eBook: 978-1-003-40389-0

* For full contents and more information, visit: www.routledge.com/9781032517711

Activity, Behavior, and Healthcare Computing



Edited by **Sozo Inoue** Kyushu Inst. of Technology, Japan, **Guillaume Lopez** Aoyama Gakuin Univ., **Tahera Hossain**, **Md Atiqur Rahman Ahad**

Series: *Ubiquitous Computing, Healthcare and Well-being*

The book will be related to the field of vision and sensor-based human action or activity and behavior analysis and recognition. Apart from a series of methodologies, it will have some - original methods, - exploration of new applications, - excellent survey papers, - presentations on relevant datasets, - challenging applications, - ideas and - future scopes with some guidelines.

CRC Press
February 2025:392
Hb: 978-1-032-63918-5: £170

* For full contents and more information, visit: www.routledge.com/9781032639185

Advancements in AI and IoT for Chip Manufacturing and Defect Prevention



Rupal Jain

Series: *River Publishers Rapids Series on Intelligence in Chips*

This is essential reading for semiconductor professionals seeking to expand their knowledge on silicon processes, understand the significance of defect prevention, and explore methods for optimizing processes by reducing defects using AI and IoT technologies. Targeting semiconductor engineers, researchers, technology professionals, and students, this book serves as a valuable resource for understanding the interplay between semiconductors, manufacturing processes, defects, and the transformative potential of AI and IoT integration.

River Publishers
November 2024:152
Pb: 978-8-770-04681-7: £69.99
eBook: 978-8-770-04682-4

* For full contents and more information, visit: www.routledge.com/9788770046817

Advancements in Cyber Crime Investigations and Modern Data Analytics



Edited by **Shishir Kumar Shandilya** Devi Ahilya University, India, **Devangana Sujay** VIT Bhopal University, India, **VB Gupta** Devi Ahilya University, India.

This book presents a fresh perspective on combating cybercrime, showcasing innovative solutions from experts across various fields. With the integration of artificial intelligence (AI), contemporary challenges are addressed with state-of-the-art strategies. The book discusses a wide range of timely issues within the domain of cybercrime and investigation, emphasizing AI-driven solutions and future multidisciplinary perspectives. As data becomes central to all digital interactions, it also becomes increasingly vulnerable, making it a prime target for adversaries.

CRC Press
December 2024:186
Hb: 978-1-032-74270-0: £110

* For full contents and more information, visit: www.routledge.com/9781032742700

Agile Security in the Digital Era

Challenges and Cybersecurity Trends



Edited by **Mounia Zaydi** Catholic University of Lille, France, **Youness Khouddi** Sultan Moulay Slimane University, Morocco, **Bouchaib Nassereddine**, **Justin Zhang**

In an era defined by rapid digital transformation, "Agile Security in the Digital Era: Challenges and Cybersecurity Trends" emerges as a pivotal resource for navigating the complex and ever-evolving cybersecurity landscape. This book offers a comprehensive exploration of how agile methodologies can be integrated into cybersecurity practices to address both current challenges and anticipate future threats. Through a blend of theoretical insights and practical applications, it equips professionals with the tools necessary to develop proactive security strategies that are robust, flexible, and effective.

CRC Press
December 2024:242
Hb: 978-1-032-75792-6: £110

* For full contents and more information, visit: www.routledge.com/9781032757926

AI and Blockchain in Smart Grids

Fundamentals, Methods, and Applications



Edited by **Shrikant Tiwari**, **Amit Kumar Tyagi** VIT, India

The book discusses emerging technologies driving the transformation of energy grids. It focuses on the integration of AI and blockchain to create digital twins that will provide real-time, data-driven insights into smart grid operations. It explores how these technologies optimize energy distribution, enhance grid resilience, and enable efficient demand-side management. Navigating the complex intersection of AI, blockchain, and smart grid technology, it offers a roadmap to a future of sustainable and intelligent energy systems.

Auerbach Publications
April 2025:352
Hb: 978-1-032-81296-0: £180

* For full contents and more information, visit: www.routledge.com/9781032812960

AI for Creatives

Unlocking Expressive Digital Potential



Vivian Ching, Dinesh Mothi

In a world where the creative sector commands USD\$4.3 trillion and makes up 6.1% of the global economy, AI offers unprecedented innovation opportunities. This guide demystifies AI for creatives, blending historical insights with cutting-edge trends and dives into ethical discussions, collaborative achievements, and real-world success stories. Tailored for non-technical readers, it is an indispensable primer for artists, designers, filmmakers, musicians, content creators and educators aiming to unlock their creative potential with AI. It enables readers to discover practical strategies to integrate AI into your creative endeavours and reshape the future of the creative economy.

Auerbach Publications

March 2025:136

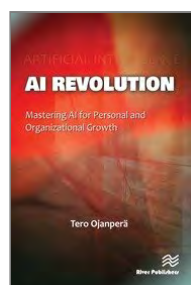
Pb: 978-1-032-87512-5: **£30.99**

Hb: 978-1-032-86635-2: **£125**

* For full contents and more information, visit: www.routledge.com/9781032875125

AI Revolution

Mastering AI for Personal and Organizational Growth



Tero Ojanperä

"The AI Revolution" is a practical guide to using new AI tools, such as ChatGPT, DALL-E and Midjourney. Learn how to multiply your productivity by guiding or prompting AI in various ways. The book also introduces Microsoft Copilot, Google Bard, and Adobe Photoshop Generative Fill, among other new applications. The book provides examples of how AI increases productivity, which professions are changing or disappearing, and how job markets will evolve in the coming years. With this book, you'll learn to recognize the opportunities and risks AI offers. Understand what this change demands from individuals and companies and what strategic skills are required.

River Publishers

November 2024:180

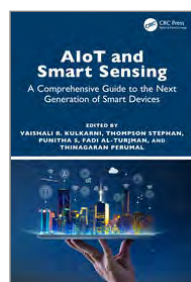
Hb: 978-8-770-04232-1: **£110**

eBook: 978-8-770-04631-2

* For full contents and more information, visit: www.routledge.com/9788770042321

AIoT and Smart Sensing

A Comprehensive Guide to the Next Generation of Smart Devices



Edited by Vaishali R Kulkarni, Thompson Stephan M. S., Punitha S., Fadi Al-Turjman, Thinagaran Perumal

AIoT and Smart Sensing: A Comprehensive Guide to the Next Generation of Smart Devices offers an in-depth exploration of the intersection of Artificial Intelligence of Things (AIoT) and smart sensing technologies. As the convergence of AI and IoT reshapes industries, this book serves as an essential guide for understanding the technological foundations, security protocols, and wide-ranging applications that make AIoT a transformative force. By examining both foundational and applied aspects, the book aims to provide readers with a holistic view of how AIoT is driving innovation in agriculture, healthcare, smart cities, and beyond.

CRC Press

April 2025:240

Hb: 978-1-032-61810-4: **£110**

* For full contents and more information, visit: www.routledge.com/9781032618104

Alternative Investments Technology

Bridging the Gap



Ankur Agarwal

This book offers a practical roadmap for planning, designing, and executing a program of business transformation using strategic technology solutions and serves as a useful resource for anyone in private equity/venture capital firms responsible for implementing changes or making key strategic decisions at any stage of the transformation program. It provides detailed guidance on several dilemmas faced by the decision makers when evaluating various systems as well as when making choices. The book also presents practical suggestions for assessing technology needs and ensuring systems are fully responsive to business needs.

Auerbach Publications

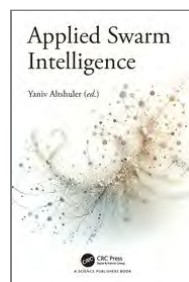
January 2025:170

Pb: 978-1-032-77178-6: **£46.99**

Hb: 978-1-032-76388-0: **£46.99**

* For full contents and more information, visit: www.routledge.com/9781032771786

Applied Swarm Intelligence



Edited by Yaniv Altshuler Research Affiliate, MIT Media Lab, MA

Provides a comprehensive analysis of the tools and techniques used for the development of efficient and robust decentralized infrastructures for various real-life scenarios, ranging from financial investment through blockchain protocols, shared transportation systems and communication networks, to bioinformatics and military applications. Theoretical and practical limitations of such systems are discussed, as well as the trade-offs between the various economic and operational parameters of the systems. The book is intended for researchers and engineers in the fields of swarm systems, economics, agriculture, nutrition and operation research.

CRC Press

December 2024:340

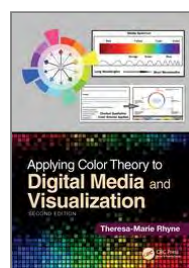
Hb: 978-0-367-22687-9: **£130**

eBook: 978-0-429-27637-8

* For full contents and more information, visit: www.routledge.com/9780367226879

2ND EDITION

Applying Color Theory to Digital Media and Visualization



Theresa-Marie Rhyne Visualization Consultant, Durham, North Carolina, USA

Unlike many books on color, which examine artists' use of color, color management or color science, this book applies fundamental color concepts to digital media and visualization solutions, and the new edition includes generative AI solutions for color suggestion. This is the ideal book for digital media and visualization content creators and developers.

CRC Press

December 2024:227

Pb: 978-1-032-81172-7: **£56.99**

Hb: 978-1-032-81685-2: **£120**

eBook: 978-1-003-50088-9

* For full contents and more information, visit: www.routledge.com/9781032811727

Applying Metaverse Technologies to Human-Computer Interaction for Healthcare

Cover Image
Not Available



Edited by **B. Sundaravadivazhagan** University of Technology and Applied Sciences-AI Mussana, **Balasubramaniam S , Pethuru Raj** IBM Pvt.Ltd., Manyata Tech Park, Bangalore, India, **K. Shantha Kumari**

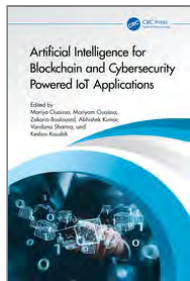
This book focuses on the current developments in the Metaverse, investigates its applications in the life sciences and healthcare industry based on Metaverse-powered human-computer interactions (HCI), analyses early adoption use cases, and anticipates future prospects in this rapidly evolving domain. The Metaverse has vast potential for utilization in the domains of life sciences and healthcare, hence to investigate new trends, early adoption uses cases, and the forthcoming opportunities it presents. It possesses the capacity to fundamentally transform decentralized clinical trials through the elimination of physical and geographical constraints.

Auerbach Publications
March 2025:368

Hb: 978-1-032-79237-8: £155

* For full contents and more information, visit: www.routledge.com/9781032792378

Artificial Intelligence for Blockchain and Cybersecurity Powered IoT Applications



Edited by **Mariya Ouaisa , Mariyam Ouaisa , Zakaria Boulouard , Abhishek Kumar** AECRC, **Vandana Sharma , Keshav Kaushik** UPES, Dehradun, India

The objective of this book is to exhibit recent solutions and to discuss the opportunities that AI, Blockchain, and even their combinations can present to solve the issue of IoT security. It delves into cutting-edge technologies and methodologies, illustrating how these innovations can fortify IoT ecosystems against security threats. The discussion includes a comprehensive analysis of AI techniques such as machine learning and deep learning, which can detect and respond to security breaches in real time. Blockchain's role in ensuring data integrity, transparency, and tamper-proof transactions is also thoroughly examined. Furthermore.

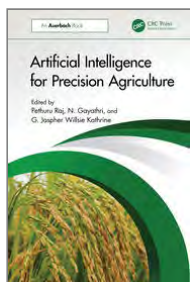
CRC Press
December 2024:287

Hb: 978-1-032-80238-1: £110

eBook: 978-1-003-49758-5

* For full contents and more information, visit: www.routledge.com/9781032802381

Artificial Intelligence for Precision Agriculture



Edited by **Pethuru Raj** IBM Pvt.Ltd., India, **N Gayathri , G. Jasper Willisie Kathrine**

The book articulates how the power of AI can be channelled to make a perceptible impact on agriculture through digital transformation. Use cases illustrate how AI can simplify and speed this agricultural transformation. Focusing on the distinct characteristics of AI, the book explains how to intelligently automate agriculture processes and practices. In particular, it looks at embedding computer vision capabilities can be embedded in farming instruments and equipment to automate a suite of agriculture-related tasks.

Auerbach Publications
December 2024:319

Hb: 978-1-032-46234-9: £155

* For full contents and more information, visit: www.routledge.com/9781032462349

Artificial Intelligence in Material Science

Advances



Edited by **Mohamed Arezki Mellal** M'Hamed Bougara University, Algeria

Material science is one of the sciences that utilizes Artificial Intelligence techniques, including machine learning and nature-inspired optimization algorithms, most extensively. This book reviews the latest methods and applications of AI in material science.

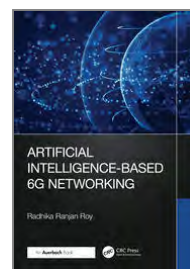
CRC Press

December 2024:276

Hb: 978-1-032-59000-4: £130

* For full contents and more information, visit: www.routledge.com/9781032590004

Artificial Intelligence-Based 6G Networking



Radhika Ranjan Roy United States Army Research Laboratory, USA

This book deals with the emerging 6G networking and services, which are expected to be implemented in the year 2030. With 6G, a paradigm shift is happening with the deep convergence of computing and communication with inherent support of AI in network functional entities. 6G networks will be using AI native interfaces from radio access networks (RANs), wireline access networks, and long-haul wide area networks including smart intelligent user equipment (UE), switches/routers, application servers, and databases. This book provides a unified framework for the deep convergence of computing and communications, that can be jointly optimized as a single integrated system using AI.

Auerbach Publications
December 2024:328

Pb: 978-1-032-81371-4: £52.99

Hb: 978-1-032-81221-2: £120

* For full contents and more information, visit: www.routledge.com/9781032813714

Assimilation of Blockchain Technology with IoT

Industry Perspectives

Cover Image
Not Available



Edited by **R. Anandan , D. Akila** Saveetha College of Liberal Arts and Sciences, SIMATS, India, **Souvik Pal** Sister Nivedita Uni, Kolkata

Series: *Chapman & Hall/CRC Internet of Things*

This text focuses on the recent research, innovation, regulation, policies, standards, and applications in the emerging area of blockchain and its applications on the internet of things (IoT). • Elaborates upon the security aspect of internet of things-based networks through blockchain, security of smart contracts, design and implementation issues, and redefined encryption standards • Presents the application of blockchain and internet of things for supply chain management, through predictive asset maintenance, fleet tracking, and plant operation monitoring

Chapman & Hall

December 2024:344

Hb: 978-1-032-54626-1: £145

* For full contents and more information, visit: www.routledge.com/9781032546261

Beyond Resilience

Patterns of Success in Fintech and Digital Transformation



Leda Glyptis

Across all industries, we all know about startups and accelerators. Innovation is a focus and now a job title. What we may not all know is that the vast majority of startups digital transformation programmes fail despite having both time and money, energy and resources. Why? This book amasses an incredible array of interviews and case studies from within big corporates and successful (former) startups but also industry observers, regulators, commentators and practitioners to answer such key questions: What did we think would be hard and were we wrong? Did we over-index or under-index certain things? What is the biggest challenge faced by a startup founder?

Auerbach Publications
January 2025:336

Hb: 978-1-032-49354-1: £30.99

* For full contents and more information, visit: www.routledge.com/9781032493541

Big Data and Blockchain Technology for Secure IoT Applications



Edited by Shitharth Selvarajan , Gouse Baig Mohammad , Sadda Bharath Reddy , Praveen Kumar Balachandran

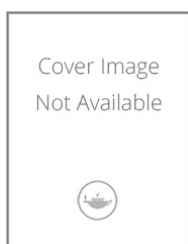
Series: Advances in Digital Technologies for Smart Applications

Big Data and Blockchain Technology for Secure IoT Applications presents a comprehensive exploration of the intersection between two transformative technologies: big data and blockchain, and their integration into securing Internet of Things (IoT) applications. As the IoT landscape continues to expand rapidly, the need for robust security measures becomes paramount to safeguard sensitive data and ensure the integrity of connected devices. This book delves into the synergistic potential of leveraging big data analytics and blockchain's decentralized ledger system to fortify IoT ecosystems against various cyber threats, ranging from data breaches to unauthorized access.

CRC Press
December 2024:214
Hb: 978-1-032-66298-5: £110
eBook: 978-1-032-66300-5

* For full contents and more information, visit: www.routledge.com/9781032662985

Blockchain and Digital Twin Applications in Smart Agriculture



Edited by Shrikant Tiwari , Amit Kumar Tyagi VIT, India

This book gives a detailed description about integration of blockchain technology and digital twin solutions in modern farming. This book will provide a concise information about agriculture sector that how these technologies empower farmers with real-time data, precision insights, and secure supply chain management. This book covers the core principles, practical applications, and some real-world case studies, with offering a practical roadmap for implementing smart agriculture practices.

Auerbach Publications
April 2025:384
Hb: 978-1-032-81746-0: £190

* For full contents and more information, visit: www.routledge.com/9781032817460

Blockchain Technology for Cyber Defense, Cyber Security, and Countermeasures

Techniques, Solutions, and Applications



Edited by Naresh Kshetri , Purnendu Shekhar Pandey , Mohiuddin Ahmed Edith Cowen University, Australia

This book offers approaches for cybersecurity and cyber defense via Blockchain technology to counter cyber-attacks and ransomwares that are increasing every second. The book can be used for many ways by several cybersecurity professionals to secure online data, people, and networks as a part of cybersecurity, information security and cyber defense initiative with several countermeasures and defense strategies in the web. Each chapter of the book provide excellent tools and techniques for the burning and challenging issues in today's modern cyber (and zero trust) world.

CRC Press
January 2025:312

Hb: 978-1-032-58303-7: £110

* For full contents and more information, visit: www.routledge.com/9781032583037

Breaking Through Bytes

Women Shaping the Digital World



Kelly Vero

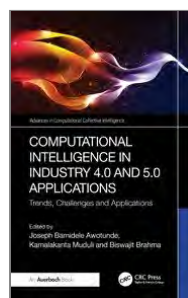
Breaking Through Bytes offers a unique exploration of women's contributions to STEM and digital technologies, focusing on underrepresented innovators across centuries. It blends detailed technical achievements with personal stories to inspire readers interested in the history of technology, gender diversity, and modern digital innovations.

CRC Press
April 2025:260
Pb: 978-1-032-93422-8: £29.99
Hb: 978-1-032-93567-6: £115

* For full contents and more information, visit: www.routledge.com/9781032934228

Computational Intelligence in Industry 4.0 and 5.0 Applications

Trends, Challenges and Applications



Edited by JOSEPH BAMIDELE AWOTUNDE , Kamalakanta Muduli The Papua New Guinea University of Technology, **BISWAJIT BRAHMA**

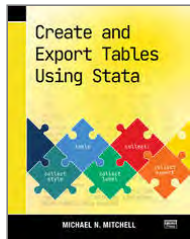
Series: Advances in Computational Collective Intelligence

The book examines leading Industry 4.0 and 5.0 and Industrial Internet of Things technologies enhanced with computational intelligence (CI) techniques. The book covers modelling, controls, estimations, applications, and systems. It considers this multi-disciplinary domain that is based on data collected from smart sensors. This data is then processed using enhanced CI-based techniques for improved smart automation.

Auerbach Publications
February 2025:420
Hb: 978-1-032-53922-5: £155

* For full contents and more information, visit: www.routledge.com/9781032539225

Create and Export Tables Using Stata



Michael N. Mitchell

In *Create and Export Tables Using Stata*, Michael Mitchell teaches you how to expertly craft custom, publication-quality tables of summary statistics, regression results, and more. Mitchell examined hundreds of published journal articles from many disciplines, searching for commonly used table layouts. This book breaks down how to create the most popularly used tables by guiding you through examples using Stata's `table`, `dtable`, and `etable` commands, as well as the collect suite of commands. This book is integral to anyone reporting data characteristics or analysis. You will learn how to create tables with the layout, formatting, and style you need.

Stata Press

November 2024:461

Pb: 978-1-597-18369-7: £66.99

* For full contents and more information, visit: www.routledge.com/9781597183697

Creating an EVEN Greater Whole

Becoming an Emotionally Intelligent Leader



Susan G. Schwartz

The book offers practical, "outcome-tested" strategies that guide new leaders as they begin their journey to create positive, inclusive workplaces. Emphasis is placed on best practices that drive high retention and profitability. It also introduces Emotional Intelligence as an essential tool to manage change and create high-performing collaborative teams.

Auerbach Publications

March 2025:192

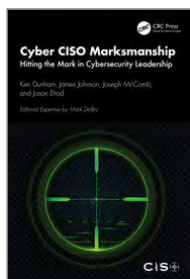
Pb: 978-1-032-85970-5: £23.99

Hb: 978-1-032-85475-5: £91.99

* For full contents and more information, visit: www.routledge.com/9781032859705

Cyber CISO Marksmanship

Hitting the Mark in Cybersecurity Leadership



Ken Dunham iSIGHT Partners, Inc., Dallas, Texas, USA,
James Johnson, **Joseph McComb**, **Jason Elrod**

Cyber CISO Marksmanship is the only book of its kind authored by multiple highly experienced individuals to collectively bring together the "best of the best" on what works and what doesn't, as a CISO, in a unique storytelling format. This book is designed for a Chief Information Security Officer (CISO) individual seeking this role and also has value to other types of cyber leaders. Knowledge and understanding of traditional books can only get you so far - *Cyber CISO Marksmanship* has powerful perspectives, real-world accounts, and insights you won't find anywhere else!

CRC Press

December 2024:224

Pb: 978-1-032-72046-3: £44.99

Hb: 978-1-032-72042-5: £110

* For full contents and more information, visit: www.routledge.com/9781032720463

Cyber Investigations of Smart Devices



Akashdeep Bhardwaj University of Petroleum and Energy Studies

With a focus on AI-based cybersecurity opportunities and issues in industrial IoT, this book equips cybersecurity professionals, law enforcement agencies, and organizations with the knowledge and tools needed to effectively investigate and mitigate cyber threats in the age of smart devices. *Cyber Investigations of Smart Devices* is essential reading for anyone involved in cybersecurity, digital forensics, and the protection of critical infrastructure.

CRC Press

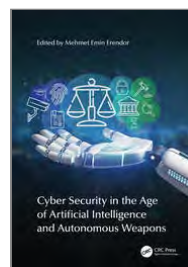
December 2024:248

Pb: 978-1-032-94367-1: £44.99

Hb: 978-1-032-94180-6: £110

* For full contents and more information, visit: www.routledge.com/9781032943671

Cyber Security in the Age of Artificial Intelligence and Autonomous Weapons



Edited by Mehmet Emin Erendor

The main purpose of the book project is to explain the phenomena from a different perspective by addressing artificial intelligence and autonomous weapons, which remain in the background while focusing on cyber security. While addressing these phenomena, it is aimed to make the study multidisciplinary and to include authors from different countries and different geographies.

CRC Press

November 2024:232

Hb: 978-1-032-57939-9: £110

eBook: 978-1-003-44170-0

* For full contents and more information, visit: www.routledge.com/9781032579399

CyberMedics

Navigating AI and Security in the Medical Field



Edited by Varun Sapra University of Petroleum and Energy Studies, **Rohit Tanwar**, **Luxmi Sapra** Dev Bhoomi Uttarakhand University

"*CyberMedics: Navigating AI and Security in the Medical Field*" is a comprehensive exploration of the transformative role of artificial intelligence (AI) in healthcare and the critical importance of securing medical data in an increasingly digital world. As AI technologies revolutionize diagnostics, treatment planning, and patient care, they also introduce new challenges related to data privacy, ethical considerations, and cybersecurity. This book offers a balanced perspective, providing healthcare professionals, technologists, and policymakers with the tools they need to understand and navigate the intersection of AI and security.

CRC Press

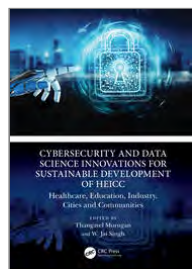
February 2025:216

Hb: 978-1-032-84702-3: £110

* For full contents and more information, visit: www.routledge.com/9781032847023

Cybersecurity and Data Science Innovations for Sustainable Development of HEICC

Healthcare, Education, Industry, Cities, and Communities



Edited by **Thangavel Murugan** United Arab Emirates University, Abu Dhabi, **W. Jai Singh** Presidency University, Bangalore

Delves into the nexus of cybersecurity, data science, and sustainable development in a variety of areas. The book serves as a comprehensive guide for researchers, practitioners, policymakers, and stakeholders navigating the complex landscape of cyber security and data science in the pursuit of sustainable development across HEICC domains.

CRC Press
January 2025:488
Hb: 978-1-032-71128-7: £110

* For full contents and more information, visit: www.routledge.com/9781032711287

Cybersecurity Leadership for Healthcare Organizations and Institutions of Higher Education



Bradley Fowler , Bruce G. Chaundy

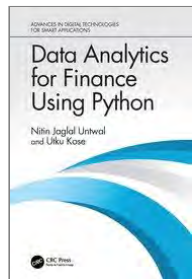
Series: *River Publishers Series in Digital Security and Forensics*

This book explores current cybersecurity trends and effective software applications, AI, and decision-making processes to combat cyberattacks. It emphasizes the importance of compliance, provides downloadable digital forensics software, and examines the psychology of organizational practice for effective cybersecurity leadership. This practical book supports the reader with downloadable digital forensics software, teaches how to utilize this software, as well as correctly securing this software as a key method to improve usage and deployment of these software applications for effective cybersecurity leadership.

River Publishers
February 2025:198
Hb: 978-8-770-04234-5: £99.99

* For full contents and more information, visit: www.routledge.com/9788770042345

Data Analytics for Finance Using Python



Nitin Jaglal Untwal , Utku Kose Suleyman Demirel U., Turkey

Series: *Advances in Digital Technologies for Smart Applications*

Unlock the power of data analytics in finance with this comprehensive guide. 'Data Analytics for Finance Using Python' is your key to unlocking the secrets of the financial markets. In this book, you'll discover how to harness the latest data analytics techniques, including machine learning and inferential statistics, to make informed investment decisions and drive business success. With a focus on practical application, this book takes you on a journey from the basics of data preprocessing and visualization to advanced modeling techniques for stock price prediction.

CRC Press
December 2024:137
Pb: 978-1-032-61823-4: £44.99
Hb: 978-1-032-61821-0: £110
eBook: 978-1-032-61824-1

* For full contents and more information, visit: www.routledge.com/9781032618234

Deep Learning Applications in Operations Research



Edited by **Aryan Chaudhary** Chief Scientific Advisor, Bio Tech Sphere Research, India, **Biswadi Basu Mallik** Institute of Engineering and Management, India, **Gunjan Mukherjee** Brainware University, India, **Rahul Kar** Kalyani Mahavidyalaya, India

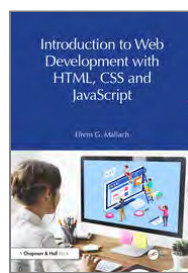
Series: *Advances in Computational Collective Intelligence*

The book delves into how to apply deep learning to areas of operations research. The book focuses on decision modeling and model optimization and features case studies. It looks at a wide selection of applications from healthcare to finance.

Auerbach Publications
December 2024:320
Hb: 978-1-032-70802-7: £190

* For full contents and more information, visit: www.routledge.com/9781032708027

Developing Web Sites with HTML, CSS and JavaScript



Efrem G. Mallach Rhode Island College, Providence, and Kea Company, New Bedford, Massachusetts, USA

Covering the three underlying technologies of Web pages: HTML, CSS, and JavaScript, this book is a one-stop guide to getting started in web development, be it in a class or as a solo-learner. Starting with no prerequisites beyond minimal exposure to programming, this book guides readers in an accessible fashion through modern page layout methods to building a complete site. Building knowledge from the ground-up, this book appeals to those looking to learn web development from a range of backgrounds, be it academic, professional or personal.

Chapman & Hall
January 2025:438
Pb: 978-1-032-74126-0: £44.99
Hb: 978-1-032-74128-4: £150

* For full contents and more information, visit: www.routledge.com/9781032741260

Edge AI for Industry 5.0 and Healthcare 5.0 Applications



Edited by **Pethuru Raj** IBM Pvt.Ltd., Manyata Tech Park, Bangalore, India, **B. Sundaravadivazhagan , A. Saleem Raja , Mohammed M. Alani**

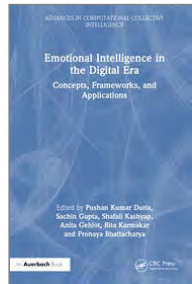
Edge AI is the seamless and spontaneous combination of Edge or fog computing and AI. It enables acquiring real-time insights, which, in turn, leads to the realization of real-time, people-centric, event-driven, business-critical, process-aware, and knowledge-filled software services and applications. This book looks at the unique contributions of edge AI for envisaging and implementing sophisticated business solutions for Industry 5.0 and Healthcare 5.0. It explains how Industry 5.0 fine tunes the human-machine connection and leverages tiny, high-performance AI-centric processors in IoT edge devices for real-time decision-making and application processing.

Auerbach Publications
March 2025:344
Hb: 978-1-032-57794-4: £155

* For full contents and more information, visit: www.routledge.com/9781032577944

Emotional Intelligence in the Digital Era

Concepts, Frameworks, and Applications



Edited by **Pushan Kumar Dutta** Amity University Kolkata, **Sachin Gupta**, **Shafali Kashyap**, **Anita Gehlot**, **Rita Karmakar**, **Pronaya Bhattacharya**

Series: *Advances in Computational Collective Intelligence*

This edited book aims to bring together the latest research in the field of human psychology, emotional intelligence, and technology. The book is a platform for experts to share their knowledge and insights, presenting various perspectives on how virtual technology and techniques can be used to promote mental health, emotional intelligence, and overall well-being in the post-pandemic world. It discusses the potential role of technology in improving human psychological perspectives and emotional intelligence.

Auerbach Publications
April 2025:472
Hb: 978-1-032-70369-5: £170

* For full contents and more information, visit: www.routledge.com/9781032703695

Explainable Artificial Intelligence in Medical Imaging

Fundamentals and Applications



Edited by **Amjad Rehman Khan**, **Tanzila Saba** Prince Sultan University

Series: *Advances in Computational Collective Intelligence*

The book presents a thorough review of state-of-the-art techniques for precise analysis and diagnosis with an emphasis on explainable artificial intelligence and its applications in healthcare. It also discusses computational vision processing methods that handle complicated data, including physiological data, electronic medical records, and medical imaging data, enabling early prediction. Researchers, academics, business professionals, health practitioners, and students will all benefit from the knowledge in this book.

Auerbach Publications
February 2025:320
Pb: 978-1-032-62633-8: £76.99
Hb: 978-1-032-59898-7: £200

* For full contents and more information, visit: www.routledge.com/9781032626338

Enterprise Fortress

The Ultimate Handbook for Enterprise Security Architecture



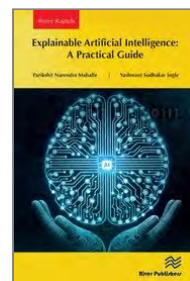
Alex Stevens

Enterprise Fortress is a comprehensive guide to building secure and resilient enterprise architectures, aimed at professionals navigating the complex world of cybersecurity. Authored by cybersecurity leader Alex Stevens, the book brings together his 20+ years of experience, blending technical expertise with business strategy. It covers everything from foundational principles to advanced topics, focusing on aligning security with organisational goals. What sets this book apart is its practical, real-world focus—grounded in hands-on experience and strategic insights, it provides actionable advice that can be immediately applied.

CRC Press
February 2025:208
Pb: 978-1-032-95645-9: £44.99
Hb: 978-1-032-95539-1: £110

* For full contents and more information, visit: www.routledge.com/9781032956459

Explainable Artificial Intelligence: A Practical Guide



Parikshit Narendra Mahalle, **Yashwant Sudhakar Ingle**

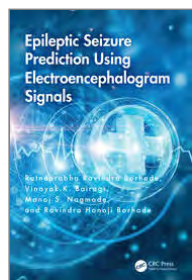
Series: *River Publishers Rapids Series on Intelligence in Chips*

This book explores the growing focus on artificial intelligence (AI) systems in both industry and academia. It evaluates and justifies AI applications while enhancing trust in AI outcomes and aiding comprehension of AI feature development. Key topics include an overview of explainable AI, black-box model understanding, interpretability techniques, practical XAI applications, and future trends and challenges in XAI.

River Publishers
December 2024:104
Pb: 978-8-770-04713-5: £48.99

* For full contents and more information, visit: www.routledge.com/9788770047135

Epileptic Seizure Prediction Using Electroencephalogram Signals



Ratnaprabha Ravindra Borhade, **Vinayak K. Bairagi**, **Manoj S. Nagmode** Government College of engineering and research, India, **Ravindra Honaji Borhade**

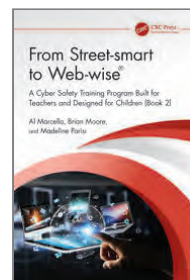
This book presents an innovative method of EEG-based feature extraction and classification of seizures using EEG signals. It describes the methodology required for EEG analysis, seizure detection, seizure prediction and seizure classification. It contains a compilation of all techniques used in the literature and emphasises on newly proposed techniques. The book concentrates on a brief discussion of existing methods for epileptic seizure diagnosis, and prediction and introduces new efficient methods specifically for seizure prediction.

Chapman & Hall
December 2024:154
Hb: 978-1-032-71439-4: £115

* For full contents and more information, visit: www.routledge.com/9781032714394

From Street-smart to Web-wise®

A Cyber Safety Training Program Built for Teachers and Designed for Children (Book 2)



AI Marcella, **Brian Moore**, **Madeline Parisi**

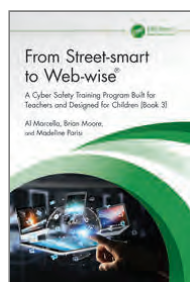
Book 2 continues as the tiny fingers in Book 1 Grades K-2 grow and become more familiar with online activities. The critical job of ensuring our children's safety expands as students become more independent and begin to have greater online autonomy. "From Street-smart to Web-wise®: A Cyber Safety Training Manual Built for Teachers and Designed for Children," isn't just another book—it's a passionate call to action for teachers, a roadmap to navigate the digital landscape safely, with confidence and care.

CRC Press
December 2024:306
Pb: 978-1-032-73860-4: £44.99
Hb: 978-1-032-73175-9: £110

* For full contents and more information, visit: www.routledge.com/9781032738604

From Street-smart to Web-wise®

A Cyber Safety Training Program Built for Teachers and Designed for Children (Book 3)



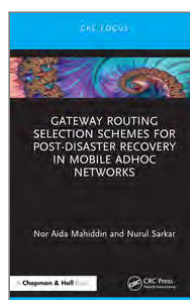
Al Marcella , Brian Moore , Madeline Parisi

In Book 3, 5th and 6th graders are maturing, becoming more independent and online activities are second nature. "From Street-smart to Web-wise®: A Cyber Safety Training Manual Built for Teachers and Designed for Children," isn't just another book—it's a passionate call to action for teachers. It is a roadmap to navigate the digital landscape safely, with confidence and care, as the critical job of ensuring student's safety in a digital world expands.

CRC Press
February 2025:408
Pb: 978-1-032-73862-8: **£44.99**
Hb: 978-1-032-73178-0: **£110**

* For full contents and more information, visit: www.routledge.com/9781032738628

Gateway Routing Selection Schemes for Post-Disaster Recovery in Mobile AdHoc Networks



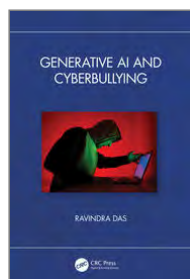
Nor Aida Mahiddin , Nurul I. Sarkar Auckland University of Technology, New Zealand

Gateway Routing Selection Schemes for Post Disaster Recovery in Mobile AdHoc Networks bridges the gap by providing practical guidelines for an efficient design and performance evaluation of gateway selection schemes to manage the load balancing. This book provides both theoretical background and practical evaluation of gateway selection methods using simulation methodology. Gateway Routing Selection Schemes for Post Disaster Recovery in Mobile AdHoc Networks makes the teaching, learning, and researching of gateway routing selection schemes a more active process using practical tools and exercises.

Chapman & Hall
January 2025:120
Hb: 978-1-032-70054-0: **£48.99**

* For full contents and more information, visit: www.routledge.com/9781032700540

Generative AI and Cyberbullying



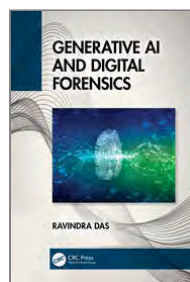
Ravindra Das President, HTG Solutions, IL, USA

The scalability and diversity of Gen AI has allowed it be used in a wide myriad of industries and applications. But although it has been primarily designed to serve the greater good, it can also be used for very nefarious purposes, such as Online Harassment and Cyberbullying. In this particular book, we actually take the good side of Gen AI, provide an overview as to how it can be used to help combat Cyberbullying.

CRC Press
November 2024:124
Pb: 978-1-032-66601-3: **£24.99**
Hb: 978-1-032-66600-6: **£110**
eBook: 978-1-032-66602-0

* For full contents and more information, visit: www.routledge.com/9781032666013

Generative AI and Digital Forensics



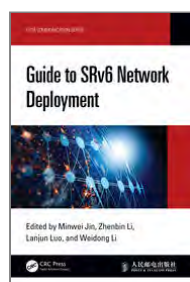
Ravindra Das

A key step here is to investigate how and why the security breach happened in the first place. The best to do this is through what is known as "Digital Forensics". This is where specially trained Digital Forensics Investigators collect and comb through every piece of evidence to determine this. Eventually, the goal is then to use this evidence in a Court of Law so the Cyberattacker can be made to answer to their crime and eventually be brought to justice.

CRC Press
November 2024:112
Pb: 978-1-032-74486-5: **£29.99**
Hb: 978-1-032-74245-8: **£110**
eBook: 978-1-003-46943-8

* For full contents and more information, visit: www.routledge.com/9781032744865

Guide to SRv6 Network Deployment



Edited by **Minwei Jin , Zhenbin Li , Lanjun Luo , Weidong Li**

Series: Data Communication Series

This book shows how SRv6 can be used in real-world network deployments, providing real-world project cases from multiple carriers and enterprises. This book is a valuable reference for academics and students majoring in data communications, as well as data communications professionals and managers responsible for network planning and design, and network operation and maintenance management.

CRC Press
November 2024:533
Hb: 978-1-032-81586-2: **£130**
eBook: 978-1-003-51455-8

* For full contents and more information, visit: www.routledge.com/9781032815862

Handbook of Inclusive Knowledge Management

Ensuring Inclusivity, Diversity, and Equity in Knowledge Processing Activities



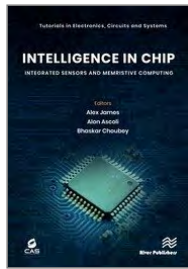
Kimiz Dalkir

This book builds on the major knowledge processing activities by adding inclusivity. Up until now, KM has used an elitist approach, focusing on the top experts in a given subject area. While this may not have been deliberate, the result has been that only these formally acknowledged expert voices have been heard and therefore included in all KM activities. Using case studies, this book will provide guidelines to implement a more equitable and inclusive approach to KM, so that all knowledge from a broad range of knowledgeable stakeholders is included, not just the formally acknowledge "experts."

Auerbach Publications
December 2024:216
Pb: 978-1-032-52131-2: **£46.99**
Hb: 978-1-032-52132-9: **£125**

* For full contents and more information, visit: www.routledge.com/9781032521312

Intelligence in Chip: Integrated Sensors and Memristive Computing



Edited by **Alex James, Alon Ascoli, Bhaskar Choubey**

Intelligence in Chips: Integrated Sensors and Memristive Computing is an authoritative resource that navigates the exciting landscape of in-memory computing, neuromorphic circuits, and memristive technologies. This book curates expert insights from leading researchers like Abu Sebastian, Alex James, Alon Ascoli, Arindam Basu, Cory Merkel, Fernando Corinto, Jason Eshraghian, Rainer Waser, Spiros Nikolaidis, Stephan Menzel, and Vishal Saxena, highlighting some of the important contributions in the field. Through a comprehensive collection of talks, readers will gain deep insights into how memristive neural computing is revolutionizing artificial intelligence.

River Publishers
December 2024:340
Hb: 978-8-770-22834-3: £110

* For full contents and more information, visit: www.routledge.com/9788770228343

Intelligent Computing and Optimization for Sustainable Development



Edited by **Veena Grover** Noida Institute of Engineering & Technology, India, **Rajesh Kumar Dhanaraj** Galgotias Uni., **Balamurugan Balusamy** Shiv Nadar Uni., **Gopal Rathinam** University of Buraimi, Oman

This book presents insights into how Intelligent Computing and Optimization techniques can be used for attaining the goals of Sustainable Development. It provides a comprehensive overview of the latest breakthroughs and recent developments in sustainable, intelligent computing technologies, applications, and optimisation techniques across various industries, including Business Process Management, Manufacturing, Financial Sector, Agriculture, Financial Sector. Supply Chain Management and Healthcare etc. It focuses upon Computational Intelligent Techniques along with Optimization techniques to provide sustainable solutions to many problems.

Chapman & Hall
December 2024:272
Hb: 978-1-032-62456-3: £140
eBook: 978-1-032-62582-9

* For full contents and more information, visit: www.routledge.com/9781032624563

Intelligent Designs, Innovations and Sustainability in Agriculture 4.0



Edited by **Anand B. Deshpande** Angadi Ins Of Tech and Management, India, **Vania V. Estrela**, **Asiya Khan** University of Plymouth, UK

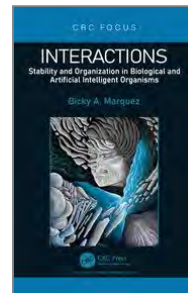
Agriculture, a cornerstone of human survival, is undergoing a transformative era where intelligence, innovation, and sustainability converge. "Intelligent Designs, Innovations and Sustainability in Agriculture 4.0" guides readers through this revolution, exploring technologies like AI and IoT that are reshaping farming. This book highlights precision farming, lean production, autonomous machinery, and data-driven decisions, emphasizing sustainable practices to ensure a resilient agricultural future. It serves as both inspiration and a reference for advancing global agricultural practices responsibly.

CRC Press
February 2025:320
Hb: 978-1-032-46259-2: £140

* For full contents and more information, visit: www.routledge.com/9781032462592

Interactions

Stability and Organization in Biological and Artificial Intelligent Organisms



Bicky A. Marquez Queen's University, Canada

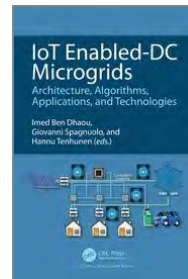
This book explores the critical need for a holistic understanding of order and intelligence amid advances in AI and hyperconnectivity. From clusters of fundamental particles to the emergence of macroscopic multicellular organisms, the complex organization of interacting components has achieved a degree of stability necessary for life to thrive. The book examines the human brain's cognitive capabilities, adaptability, and the importance of communication in fostering the emergence of superorganisms. The book also emphasizes AI's role in enhancing cognition and addressing global challenges.

CRC Press
December 2024:144
Hb: 978-1-032-59349-4: £49.99
eBook: 978-1-003-45431-1

* For full contents and more information, visit: www.routledge.com/9781032593494

IoT Enabled-DC Microgrids

Architecture, Algorithms, Applications, and Technologies



Edited by **Imed Ben Dhaou**, **Giovanni Spagnuolo** University of Salerno, Italy, **Hannu Tenhunen** Tampere University, Finland

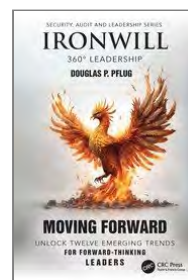
Smart-grid is the new generation of the power grid that has been advocated to increase the reliability of the grid and to reduce carbon footprint by integrating distributed resources. Microgrid technology allows for the integration of renewables energies. Microgrids are either AC or DC. The increasing number DC loads in addition to the need to reduce the loss in converting the DC power to AC, and the existence of DC storage units have proponent the design and adoption of a DC microgrid. The electrification of the transportation sector has further endorsed the DC microgrid.

CRC Press
November 2024:280
Hb: 978-1-032-59411-8: £115
eBook: 978-1-003-45457-1

* For full contents and more information, visit: www.routledge.com/9781032594118

Ironwill 360° Leadership

Moving Forward: Unlock Twelve Emerging Trends for Forward-Thinking Leaders



Douglas P. Pflug

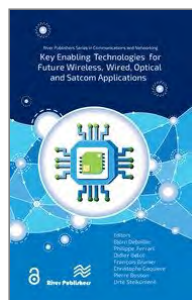
Series: Security, Audit and Leadership Series

"Ironwill 360° Leadership: Moving Forward" by Douglas Pflug is a captivating journey into the future of leadership in 2025 and beyond, tailored for forward-thinking visionary leaders hungry for success. Prepare yourself for twelve game-changing trends, from mastering Digital Mindfulness to igniting Purpose-Driven Leadership. Pflug's insights on Remote Leadership Skills, Adaptive Learning, and Inclusive Leadership are your secret weapons for navigating today's dynamic world. Dive into Resilience, Ensuring Sustainability and Human-Centric Leadership to discover the roadmap to survive and thrive.

CRC Press
December 2024:250
Pb: 978-1-032-85422-9: £44.99
Hb: 978-1-032-82348-5: £110

* For full contents and more information, visit: www.routledge.com/9781032854229

Key enabling technologies for future wireless, wired, optical and satcom applications



Edited by **Björn Debaillie**, **Philippe Ferrari**, **Didier Belot**, **François Brunier**, **Christophe Gaquiere**, **Pierre Busson**, **Urté Steikūnienė**

Series: *River Publishers Series in Communications and Networking*

This book presents the latest research roadmaps and achievements from the European ecosystem (industry, research, and academia) driving the development of future wireless, wired, optical and satcom applications utilising the mm-wave and sub-THz bands. It covers the entire value chain, including technologies, devices, characterisation, architectures, circuits, 3D heterogeneous integration and packaging. Whether you are a professional in the field or simply interested in the future of communication technologies, this book offers invaluable insights into the technological breakthroughs shaping our digital future.

River Publishers
November 2024:222
Hb: 978-8-770-04665-7: **£110**

* For full contents and more information, visit: www.routledge.com/9788770046657

Leveraging Blockchain Technology

Governance, Risk, Compliance, Security, and Benevolent Use Cases



Edited by **Shaun Aghili** Concordia University of Edmonton, Canada

Series: *Security, Audit and Leadership Series*

Blockchain technology is a digital ledger system that allows for secure, transparent and tamper-proof transactions. It is essentially an often decentralized, distributed, peer-to-peer database that is maintained by a network of computers instead of a single entity, making it highly resistant to hacking and data breaches. By providing greater security, transparency and efficiency, blockchain technology can help to create a more equitable and sustainable world. Blockchain technology has the potential to help mankind in various ways.

CRC Press
November 2024:218
Hb: 978-1-032-61100-6: **£54.99**
eBook: 978-1-003-46203-3

* For full contents and more information, visit: www.routledge.com/9781032611006

Machine Learning for Radio Resource Management and Optimization in 5G and Beyond



Edited by **Mariyam Ouaisa**, **Mariya Ouaisa**, **Hanane Lamaazi**, **Khadija Slimani**, **Ihtiram Raza Khan** Jamia Hamdard, New Delhi, **B. Sundaravadivazhagan**

This book aims to highlight a new line of research that uses innovative technologies and methods based on AI/ML techniques to address issues and challenges related to radio resource management in 5G and 6G communication systems. This book provides comprehensive coverage of current and emerging waveform design, channel modelling, multiple access, random access, scheduling, network slicing and resource optimization for 5G wireless networks and beyond. This book is suitable for researchers, scholars, and industry professionals working in different fields related to mobile networks and intelligent systems.

CRC Press
March 2025:272
Hb: 978-1-032-84473-2: **£150**

* For full contents and more information, visit: www.routledge.com/9781032844732

ManusCrypt

Designed for Mankind – Anthropocentric Information Security



Prashant A Upadhyaya

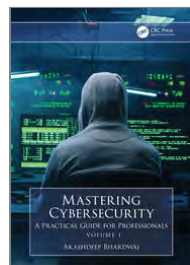
Information Security primarily serves these six distinct purposes – Authentication, Authorization, Prevention of Data Theft, Sensitive Data Safety / Privacy, Data Protection / Integrity, Non-Repudiation. The entire gamut of infosec rests upon Cryptography. The author begins as a protagonist to explain that modern cryptography is more suited for machines rather than humans. This is explained through a brief history of ciphers and its evolution into cryptography and its various forms.

CRC Press
November 2024:210
Pb: 978-1-032-86364-1: **£44.99**
Hb: 978-1-032-84240-0: **£110**
eBook: 978-1-003-52722-0

* For full contents and more information, visit: www.routledge.com/9781032863641

Mastering Cybersecurity

A Practical Guide for Professionals (Volume 1)



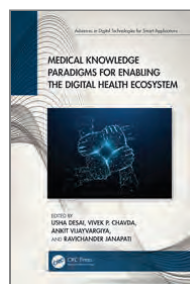
Akashdeep Bhardwaj University of Petroleum and Energy Studies

The first volume starts with the fundamentals and hands-on of performing log analysis on Windows and Linux systems. You will then build your own virtual environment to hone your penetration testing skills. But defense isn't just about identifying weaknesses; it's about building secure applications from the ground up. The book teaches you how to leverage Docker and other technologies for application deployments and Appsec management. Next, we delve into information gathering of targets as well as vulnerability scanning of vulnerable OS and Apps running on DVWA, Metasploitable2, Kioptrix and others. You'll also learn live hunting for vulnerable devices and systems on the Internet.

CRC Press
December 2024:218
Pb: 978-1-032-89390-7: **£44.99**
Hb: 978-1-032-88741-8: **£110**

* For full contents and more information, visit: www.routledge.com/9781032893907

Medical Knowledge Paradigms for Enabling the Digital Health Ecosystem



Edited by **Usha Desai** SR University, India, **Vivek P. Chavda**, **Ankit Vijayvargiya**, **Ravichander Janapati** SR University, India

Series: *Advances in Digital Technologies for Smart Applications*

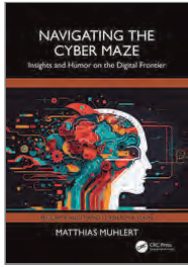
In the era of digital transformation, the landscape of healthcare is undergoing a profound paradigm shift, driven by technological innovation and collaborative endeavors. The book "Medical Knowledge Paradigms for Enabling the Digital Health Ecosystems" delves into the dynamic interplay between technology and healthcare, exploring the transformative potential of digital solutions in shaping the future of healthcare delivery.

CRC Press
November 2024:324
Hb: 978-1-032-61193-8: **£110**

* For full contents and more information, visit: www.routledge.com/9781032611938

Navigating the Cyber Maze

Insights and Humor on the Digital Frontier



Matthias Muhlert

Series: Security, Audit and Leadership Series

In an era where cyber threats loom larger than ever, Navigating the Cyber Maze offers a refreshing blend of deep insights and engaging humor to demystify the complex world of cybersecurity. Authored by Matthias Muhlert, a seasoned cybersecurity expert with over 20 years of experience, this book aims to provide readers with a comprehensive understanding of cybersecurity, extending far beyond traditional IT concerns. From safeguarding smart homes to securing agricultural supply chains, Muhlert's expertise shines through in this essential guide.

CRC Press

January 2025:232

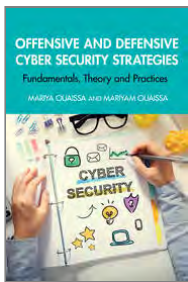
Pb: 978-1-032-91255-4: **£44.99**

Hb: 978-1-032-91037-6: **£110**

* For full contents and more information, visit: www.routledge.com/9781032912554

Offensive and Defensive Cyber Security Strategies

Fundamentals, Theory and Practices



Mariya Ouaisa , Mariyam Ouaisa

Series: Cyber Shorts

The aim of this book is to explore the definitions and fundamentals of offensive security vs defensive Security and describe the different tools and technologies for protecting against cyber threats. The book offers strategies of a practical aspects of cybersecurity and covers the main disciplines needed to understand cybersecurity and demonstrates ethical and legal concepts of cyber activities. It presents important concepts relevant for cybersecurity strategies, including the concept of cybercrime, cyber defence, protection of IT systems and analysis of risks.

CRC Press

November 2024:116

Pb: 978-1-032-83380-4: **£29.99**

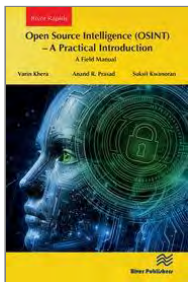
Hb: 978-1-032-82341-6: **£110**

eBook: 978-1-003-50908-0

* For full contents and more information, visit: www.routledge.com/9781032833804

Open Source Intelligence (OSINT) – A practical Introduction

A Field Manual



Varin Khara , Anand R. Prasad , Suksit Kwanoran

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

This practical book introduces open-source intelligence (OSINT) and explores how it can be executed in different intelligence scenarios. It covers varying supporting topics, such as online tracking techniques, privacy best practices for OSINT researchers, and practical examples of OSINT investigations. The book also delves into the integration of artificial intelligence (AI) and machine learning (ML) in OSINT, social media intelligence methodologies, and the unique characteristics of the surface web, deep web, and dark web. This book provides a comprehensive understanding of CTI, TI, and OSINT.

River Publishers

November 2024:128

Pb: 978-8-770-04717-3: **£56.99**

eBook: 978-8-770-04718-0

* For full contents and more information, visit: www.routledge.com/9788770047173

Optimal Spending on Cybersecurity Measures

Protecting Health Information



Tara Kissoon

This book introduces the cyber risk investment model, and the cybersecurity risk management framework used within business-driven risk assessments to meet the intent of Privacy and Data Protection Laws. This can be used by various stakeholders who are involved in the implementation of cybersecurity measures to safeguard sensitive data. This framework facilitates an organization's risk management decision-making process to demonstrate the mechanisms in place to fund cybersecurity measures to meet Privacy Laws and demonstrates the application of the process showcasing six case studies.

CRC Press

December 2024:192

Pb: 978-1-032-86363-4: **£44.99**

Hb: 978-1-032-82357-7: **£110**

* For full contents and more information, visit: www.routledge.com/9781032863634

Parallel and High-Performance Computing in Artificial Intelligence



Edited by Mukesh Raghuvanshi , Pradnya Borkar Symbiosis International University Symbiosis Institute of Technology, Pune, Rutvij H. Jhaveri , Roshani Raut Pimpri Chinchwad College of Engineering, Pune, India

Series: Advances in Computational Collective Intelligence

The book explores high-performance architectures for data-intensive applications, as well as efficient analytical strategies, to speed up data processing in applications in automation, machine learning, deep learning, bioinformatics, natural language processing, and vision intelligence. The book first covers high-performance architectures, multicore architectures, parallel computing techniques in high-performance computing with various APIs. It then examines dependence analysis that should be taken care of during parallel computing. It also presents GPU acceleration techniques used in Big Data applications as well as hardware acceleration.

Auerbach Publications

April 2025:336

Hb: 978-1-032-54087-0: **£155**

* For full contents and more information, visit: www.routledge.com/9781032540870

Practical Guide to Machine Learning, NLP, and Generative AI: Libraries, Algorithms, and Applications



T. Mariprasath , Kumar Reddy Cheepati , Marco Rivera

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

This is an essential resource for beginners and experienced practitioners in machine learning. This comprehensive guide covers a broad spectrum of machine learning topics, starting with an in-depth exploration of popular machine learning libraries. Readers will gain a thorough understanding of Scikit-learn, TensorFlow, PyTorch, Keras, and other pivotal libraries like XGBoost, LightGBM, and CatBoost, which are integral for efficient model development and deployment. The book delves into various neural network architectures, providing readers with a solid foundation in understanding and applying these models.

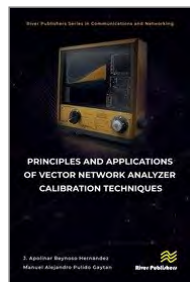
River Publishers

December 2024:172

Pb: 978-8-770-04653-4: **£56.99**

* For full contents and more information, visit: www.routledge.com/9788770046534

Principles and Applications of Vector Network Analyzer Calibration Techniques



J. Apolinar Reynoso Hernández, Manuel Alejandro Pulido Gaytan

Series: River Publishers Series in Communications and Networking

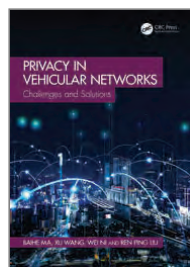
This book summarizes the work developed over more than two decades in the field of advanced calibration techniques for vector network analyzers, by the RF and Microwave Group at The Center for Scientific Research and Higher Education of Ensenada, Baja California, Mexico, which is led by Dr. J. Apolinar Reynoso-Hernandez, author of this book. This book is written so that every electrical engineer, with knowledge of electrical circuits and linear algebra basics, can understand the principles of VNA calibration techniques.

River Publishers
December 2024:198
Hb: 978-8-770-04159-1: £99.99
eBook: 978-8-770-04635-0

* For full contents and more information, visit: www.routledge.com/9788770041591

Privacy in Vehicular Networks

Challenges and Solutions



Baihe Ma, Xu Wang, Wei Ni, Ren Ping Liu

In an era where vehicular networks and Location-Based Services (LBS) are rapidly expanding, safeguarding location privacy has become a critical challenge. Privacy in Vehicular Networks delves into the complexities of protecting sensitive location data within the dynamic and decentralized environment of vehicular networks. This book stands out by addressing both the theoretical and practical aspects of location privacy, offering a thorough analysis of existing vulnerabilities and innovative solutions.

CRC Press
February 2025:184
Pb: 978-1-032-85417-5: £44.99
Hb: 978-1-032-82352-2: £110

* For full contents and more information, visit: www.routledge.com/9781032854175

2ND EDITION

Project Management for Research and Development

Guiding Innovation for Positive R&D Outcomes



Lory Mitchell Wingate

Series: Best Practices in Portfolio, Program, and Project Management

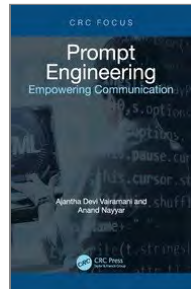
In the highly competitive R&D space, new products and services are constantly emerging from every direction. With a strategic alignment of highly regarded, time-tested disciplines used by world-class institutions to drive innovation, the processes and templates in this second edition help innovators—from aspiring creatives to seasoned professionals—with easy access to a winning formula, regardless of the size of the project or the industry. This book provides a roadmap to execute R&D projects by delivering strategic insights, best-practice guidance, and easily applicable steps that allow readers to apply the described methods and achieve tangible results in R&D.

Auerbach Publications
April 2025:464
Pb: 978-1-032-83036-0: £56.99
Hb: 978-1-032-82329-4: £155

* For full contents and more information, visit: www.routledge.com/9781032830360

Prompt Engineering

Empowering Communication



Ajantha Devi Vairamani, Anand Nayyar Duy Tan University, Vietnam

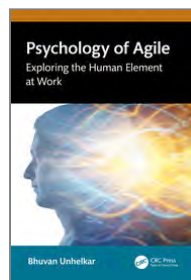
"The Prompt Revolution: Empowering Communication" delves into the art and science of prompt engineering to enhance communication across professions. It explores how prompts foster creativity, meaningful conversations, and significant outcomes. The book traces the evolution of prompt engineering, highlighting its integration with psychology, technology, and design. It offers practical strategies to create engaging prompts, leveraging insights from ChatGPT to transform interactions. With a range of profession-specific prompts, the book provides valuable tips for effective writing, business, technology, healthcare, education, and more.

CRC Press
December 2024:176
Hb: 978-1-032-67990-7: £49.99

* For full contents and more information, visit: www.routledge.com/9781032679907

Psychology of Agile

Exploring the Human Element at Work



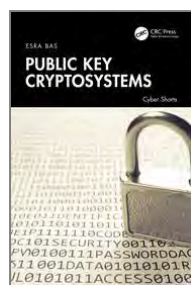
Bhuvan Unhelkar University of South Florida

Agile is a mindset and a culture that has evolved beyond software development to encompass all forms of project management, business organizations, defense, and society. In today's fast-paced and ever-changing world, adopting an Agile approach is essential for organizations to thrive and maintain competitiveness. This book aims to extend the concept of Agility beyond the four declarations of the Manifesto and apply it to various projects, organizations, and even society. The book delves into the intricacies of Agile and highlights its significance in modern workplaces. It emphasizes that Agile is more than just a set of tools and techniques.

CRC Press
November 2024:184
Pb: 978-1-032-06284-6: £44.99
Hb: 978-1-032-06283-9: £110
eBook: 978-1-003-20154-0

* For full contents and more information, visit: www.routledge.com/9781032062846

Public Key Cryptosystems



Esra Bas Istanbul Technical University, Turkey

Series: Cyber Shorts

This book is a short book about public key cryptosystems, digital signature algorithms, and their basic cryptanalysis which are provided at a basic level so that it can be easy to understand for the undergraduate engineering students who can be defined as the core audience. To provide the necessary background, Chapter 1 and Chapter 2 are devoted to the selected fundamental concepts in cryptography mathematics and selected fundamental concepts in cryptography.

CRC Press
January 2025:168
Pb: 978-1-032-84623-1: £44.99
Hb: 978-1-032-82344-7: £110

* For full contents and more information, visit: www.routledge.com/9781032846231

Quantitative Social Science Research in Practice

Generating Novel and Parsimonious Explanatory Models for Social Sciences



Charlotte Donalds , Kweku-Muata Osei-Bryson
Virginia Commonwealth University, Richmond, USA

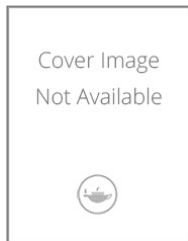
Applying quantitative methods, quantitative behavioral science (QBS) researchers collect and analyze data to uncover patterns and relationships that drive human behaviour. QBS studies typically initially involve the exploration of existing theories to generate and justify a set of hypotheses that together constitute a new causal model. However, there is no clear guidance to the researcher on how to generate a novel parsimonious causal model, that is highly likely to be supported by empirical analysis. This book fills this gap by offering an approach for generating novel, parsimonious and actionable models.

Routledge
January 2025:154
Pb: 978-1-032-64707-4: **£56.99**
Hb: 978-1-032-64819-4: **£145**
eBook: 978-1-032-67893-1

* For full contents and more information, visit: www.routledge.com/9781032647074

Quantum Computing

The Future of Information Processing



Edited by **Shrikant Tiwari , Amit Kumar Tyagi** VIT, India, S.V. Nagaraj

Quantum computing is at the forefront of technological innovation. This book explains its principles, practical applications, and future implications in a clear and accessible manner. It takes readers on a journey from the fundamental principles of quantum mechanics to the practical applications reshaping such technologies as blockchain, cybersecurity, machine learning, and fintech. It features real-world case studies that provide a view of the technology's impact today. The book presents a clear roadmap for practical implementation, guiding readers through the complex process of integrating quantum computing into real-world applications.

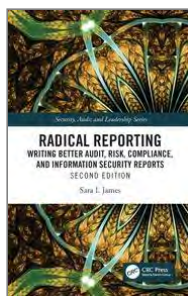
Auerbach Publications
April 2025:376
Pb: 978-1-032-81368-4: **£76.99**
Hb: 978-1-032-80258-9: **£200**

* For full contents and more information, visit: www.routledge.com/9781032813684

2ND EDITION

Radical Reporting

Writing Better Audit, Risk, Compliance, and Information Security Reports



Sara I. James

Series: Security, Audit and Leadership Series

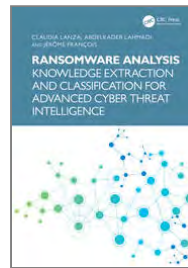
Most people dread writing reports; they also dread reading reports. What they don't realize is that the techniques that make writing more readable make it more powerful. This is especially relevant for professionals in areas such as audit, risk, compliance, and information security. This small volume provides the tools and techniques needed to improve reports. It does so through addressing crucial concepts all too often overlooked in the familiar rush to perform tasks, complete projects, and meet deadlines.

CRC Press
January 2025:256
Pb: 978-1-032-72753-0: **£44.99**
Hb: 978-1-032-72754-7: **£110**

* For full contents and more information, visit: www.routledge.com/9781032727530

Ransomware Analysis

Knowledge Extraction and Classification for Advanced Cyber Threat Intelligence



Claudia Lanza , Abdelkader Lahmadi , Jérôme François

This book presents the development of a classification scheme to organize and represent ransomware threat knowledge through the implementation of an innovative methodology centred around the semantic annotation of domain-specific source documentation. By combining principles from computer science, document management, and semantic data processing, the research establishes an innovative framework to organize ransomware data extracted from specialized source texts in a systematic classification system.

CRC Press
November 2024:112
Hb: 978-1-032-83210-4: **£110**
eBook: 978-1-003-52899-9

* For full contents and more information, visit: www.routledge.com/9781032832104

Ransomware Evolution



Edited by **Mohiuddin Ahmed** Edith Cowen University, Australia

Ensuring cyber safety from ransomware attacks has become a national security priority for many nations across the world. The evolving variants of ransomware attacks present a wider and more challenging threat landscape, highlighting the need for collaborative work throughout the entire cyber ecosystem value chain. In response to this, this book aims to provide a comprehensive overview of the evolution, trends, techniques, impact on critical infrastructures and national security, countermeasures, and open research directions in this area. It will serve as a valuable source of knowledge on the topic.

CRC Press
December 2024:254
Hb: 978-1-032-74271-7: **£110**
eBook: 978-1-003-46950-6

* For full contents and more information, visit: www.routledge.com/9781032742717

Recent Advances in Computing Sciences



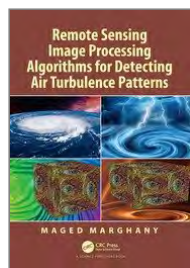
Edited by **Manmohan Sharma , Mintu Nath , Sophiya Sheikh , Amar Singh**

The 2nd International Conference on Recent Advances in Computing Sciences (RACS) was held from 29th to 30th November 2022 at Lovely Professional University, Jalandhar, India. The conference focused on discussing issues, exchanging ideas, and the most recent innovations towards advancing research in the field of Computing Sciences and Technology. All technical sessions were predominantly related to Data Science, Artificial intelligence, Remote Sensing, Image Processing, Computer Vision, Data Forensics, Cyber-Security, Computational Sciences, Simulation and modeling, Business Analytics, and Machine Learning.

CRC Press
January 2025:336
Pb: 978-1-032-94347-3: **£44.99**

* For full contents and more information, visit: www.routledge.com/9781032943473

Remote Sensing Image Processing Algorithms for Detecting Air Turbulence Patterns



Maged Marghany

Comprises a broad overview of quantum theory for understanding automatic detection of air turbulence with remote sensing data. Quantum theory explains the electromagnetic wave ranges of varieties of remote sensing satellite data from short wavelength to long wavelength. With this understanding, the principles of remote sensing, imaging, and automatic air turbulence detections are addressed based on the quantum image processing, especially, the Schrödinger equation. Finally, the four-dimensional exploration of air turbulence detections is also discussed based on quantum computing.

CRC Press
November 2024:376
Hb: 978-1-032-34458-4: **£140**
eBook: 978-1-003-32227-6

* For full contents and more information, visit: www.routledge.com/9781032344584

Rock • Paper • Pixels

How Our Need to Communicate Created a New Economy, Society, and Individual: What will be the Effects of Artificial Intelligence and Quantum Computing?



Patrick Aievoli

The purpose of this book was to avail students of the many different reasons and back-stories equated with the advent of interaction design and its effect on our world. Since the beginning of recorded history mankind has desired to keep track of its events and accomplishments and to find a way to properly represent those occurrences to the rest of the world. Now with the use of interaction design and multimedia it has become possible to present the story through a current and evocative platform. The main goal of this book is to help you take your first steps in that new direction. To understand the effects of this new platform and to be wary of its abilities and its dangers.

CRC Press
January 2025:304
Pb: 978-1-032-51892-3: **£44.99**
Hb: 978-1-032-51891-6: **£110**

* For full contents and more information, visit: www.routledge.com/9781032518923

Safeguarding the Future

Security and Privacy by Design for AI, Metaverse, Blockchain, and Beyond



Alan Tang

Series: Security, Audit and Leadership Series

In the ever-evolving landscape of technology, emerging innovations like Artificial Intelligence, Blockchain, Quantum Computing, Brain-Computer Interfaces (BCI), and the Metaverse are transforming industries at an unprecedented rate. However, with these advancements come significant challenges, particularly in the realms of security and privacy. Safeguarding the Future by Dr. Alan Tang offers a comprehensive guide to navigating these challenges, providing a holistic framework to secure and protect the privacy of these cutting-edge technologies.

CRC Press
March 2025:376
Pb: 978-1-032-48770-0: **£44.99**
Hb: 978-1-032-48768-7: **£110**

* For full contents and more information, visit: www.routledge.com/9781032487700

Scaling Up with R and Apache Arrow

Bigger Data, Easier Workflows



Nic Crane, Jonathan Keane, Neal Richardson

Scaling Up With R and Arrow provides a guide to working efficiently with larger-than-memory datasets using the arrow R package. As data grows in size and complexity, traditional data analysis methods in R often hit technical limitations. In this book, you'll learn how to overcome these hurdles without needing to set up complex infrastructure. This book also explores practical topics like data manipulation, file formats, working with larger datasets, and optimizing workflows for data in cloud storage. Written by developers of the Arrow R package, this guide is essential for anyone looking to scale their data processing capabilities in R.

Chapman & Hall
May 2025:158
Pb: 978-1-032-66028-8: **£44.99**
Hb: 978-1-032-66320-3: **£110**

* For full contents and more information, visit: www.routledge.com/9781032660288

Secure Health

A Guide to Cybersecurity for Healthcare Managers



Edited by **Mohamed Hammad** Prince Sultan University, Saudi Arabia, **Gauhar Ali** Prince Sultan University, Saudi Arabia, **Mohammed A. El-Affendi** Prince Sultan University, Saudi Arabia, **Yassine Maleh** Sultan Moulay Slimane University, Morocco, **Ahmed A. Abd El-Latif**

Series: Advances in Cybersecurity Management

In today's interconnected world, healthcare systems are increasingly turning to digital technologies to enhance patient care and optimize operations. However, this digital transformation presents significant challenges in guaranteeing the security and privacy of sensitive healthcare data. "Secure Health confronts these challenges head-on, offering a comprehensive exploration of the latest advancements and best practices in securing digital health systems.

CRC Press
November 2024:258
Hb: 978-1-032-74265-6: **£110**
eBook: 978-1-003-47003-8

* For full contents and more information, visit: www.routledge.com/9781032742656

Securing the Digital Realm

Advances in Hardware and Software Security, Communication, and Forensics



Edited by **Muhammad Arif** Superior University Sargodha, Pakistan, **M. Arfan Jaffar**, **Oana Geman**, **Waseem Abbasi**

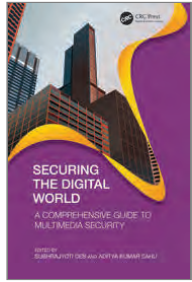
This book "Securing the Digital Realm: Advances in Hardware and Software Security, Communication, and Forensics" is a comprehensive guide that explores the intricate world of digital security and forensics. As our lives become increasingly digital, understanding how to protect our digital assets, communication systems, and investigate cybercrimes is more crucial than ever. This book begins by laying a strong foundation in the fundamental concepts of hardware and software security. It explains the design of modern computer systems and networks to defend against a myriad of threats, from malware to data breaches, in clear and accessible language.

CRC Press
February 2025:312
Hb: 978-1-032-80230-5: **£110**

* For full contents and more information, visit: www.routledge.com/9781032802305

Securing the Digital World

A Comprehensive Guide to Multimedia Security



Edited by **Subhrajyoti Deb , Aditya Kumar Sahu**

Securing the Digital World: A Comprehensive Guide to Multimedia Security is indispensable reading in today's digital age. With the outbreak of digital range and ever-evolving cyber threats, the demand to protect multimedia data has never been more imperative. This book provides comprehensive research on multimedia information security and bridges the gap between theoretical bases and practical applications.

CRC Press
January 2025:216
Hb: 978-1-032-66362-3: £110

* For full contents and more information, visit: www.routledge.com/9781032663623

Security Issues in Communication Devices, Networks and Computing Models

Volume 1



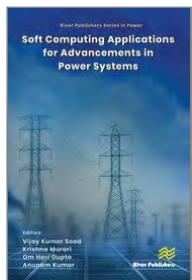
Edited by **Budati Anil Kumar , Alla Ramakrishna , Goutham Makkena , Gheorghita Ghinea** Brunel Uni.

The importance of addressing security issues in communication devices, networks, and computing models in Industry 5.0 cannot be overstated. Industry 5.0 represents the next phase in the evolution of manufacturing and industrial processes, characterized by increased connectivity, automation, and the integration of smart technologies. In summary, addressing security issues in communication devices, networks, and computing models is fundamental to the successful implementation of Industry 5.0. It not only protects the assets and operations of organizations but also contributes to the overall safety, reliability, and sustainability of advanced industrial systems.

CRC Press
April 2025:264
Hb: 978-1-032-83211-1: £110

* For full contents and more information, visit: www.routledge.com/9781032832111

Soft Computing Applications for Advancements in Power Systems



Edited by **Vijay Kumar Sood , Krishna Murari , Om Hari Gupta , Anupam Kumar**

Series: *River Publishers Series in Power*

This book discusses real applications of soft computing (SC) in power systems. These SC techniques, inspired by the human mind and biological behavior, have proven to be excellent tools to overcome the challenges faced in power systems and related areas. The techniques are robust and provide low-cost solutions while also offering an effective solution for studying and modeling the behavior of renewable energy generation, operation of grid-connected renewable energy systems, and sustainable decision-making among alternatives.

River Publishers
December 2024:292
Hb: 978-8-770-04141-6: £110

* For full contents and more information, visit: www.routledge.com/9788770041416

Software Vulnerability Discovery Process: Concepts and Applications



Adarsh Anand , Navneet Bhatt , Omar H Alhazmi

Series: *River Publishers Series in Mathematical and Engineering Sciences*

This book is an overview of basics and other related fundamentals pertaining to software vulnerability discovery as a process. This collaboration of academia and industry disseminates various practical mathematical modeling-based tools and analytics used for vulnerability discovery. Software Vulnerability Discovery Process: Concepts and Applications is not only for academicians, but also for those who need to understand nature of the vulnerabilities, like a vendor, a client in the domain of complex systems, and for understanding the patch management workflow. Along with these, anyone solving problems within the related application domains will benefit from this compilation.

River Publishers
February 2025:150
Hb: 978-8-770-22862-6: £99.99

* For full contents and more information, visit: www.routledge.com/9788770228626

Strategic Employer Branding for IT Companies

An Interdisciplinary Perspective



Elwira Gross-Golacka , Ewa Szkudlarek

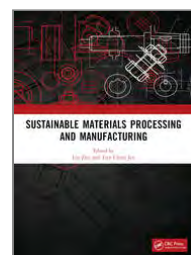
The book discusses the issues of building and maintaining a distinctive and credible employer brand and presents a set of practical tools supporting a strategic approach to employer branding in the IT companies. Starting from the constantly current interest of practitioners and theorists in this issue, the book includes both analyses of the development of the employer branding concept as well as a set of practical recommendations and tools leading to effective employer branding. The book contains a business perspective based on empirical research, a catalogue of good practices and tools as well as recommendations for implementing effective employer branding strategies.

Routledge
November 2024:190
Hb: 978-1-032-77050-5: £125
eBook: 978-1-003-48662-6

* For full contents and more information, visit: www.routledge.com/9781032770505

Sustainable Materials Processing and Manufacturing

Proceedings of the 3rd International Conference on Sustainable Materials Processing and Manufacturing



Edited by **Lin Zhu , Tien Chien Jen**

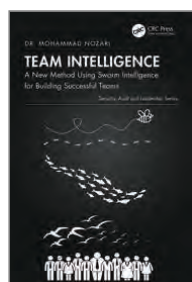
The conference on 'Substantial Materials Processing and Manufacturing (SMPM)' aims to bring together scientists, researchers, and companies to attend and share their vision, ideas, recent developments as well as advanced scientific and technical knowledge in the field of materials processing and manufacturing. The conference is concerned with sustainable engineering, life cycle engineering, sustainable manufacturing systems and technologies, sustainable materials.

CRC Press
November 2024:146
Pb: 978-1-032-88599-5: £59.99
eBook: 978-1-003-53864-6

* For full contents and more information, visit: www.routledge.com/9781032885995

Team Intelligence

A New Method Using Swarm Intelligence for Building Successful Teams



Mohammad Nozari

Series: Security, Audit and Leadership Series

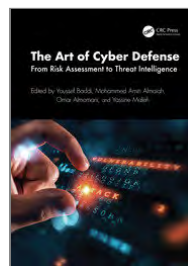
This book opens that exact interdisciplinary field, a bridge between managing teams and people in companies with how similar problems are solved in intelligent swarms. The research supporting this idea has led to a set of principles that will transform traditional teams into Intelligent Teams. These teams are capable of bringing performance, learning, and happiness of the team members to a new high level.

CRC Press
December 2024:160
Pb: 978-1-032-86362-7: **£44.99**
Hb: 978-1-032-84236-3: **£110**

* For full contents and more information, visit: www.routledge.com/9781032863627

The Art of Cyber Defense

From Risk Assessment to Threat Intelligence



Edited by Youssef Baddi , Mohammed Amin Almaiah , Omar Almomani , Yassine Maleh
Slimane University, Morocco

Series: Advances in Cybersecurity Management

The Art of Cyber Defense: From Risk Assessment to Threat Intelligence offers a comprehensive exploration of cybersecurity principles, strategies, and technologies essential for safeguarding digital assets and mitigating evolving cyber threats. This book provides invaluable insights into the intricacies of cyber defense, guiding readers through a journey from understanding risk assessment methodologies to leveraging threat intelligence for proactive defense measures. Delving into the nuances of modern cyber threats, the book equips readers with the knowledge and tools necessary to navigate the complex landscape of cybersecurity.

CRC Press
November 2024:310
Hb: 978-1-032-71478-3: **£110**
eBook: 978-1-032-71480-6

* For full contents and more information, visit: www.routledge.com/9781032714783

Technological Innovations & Applications in Industry 4.0



Edited by Dinesh Seth , Sushant S. Satputaley , Minhaj Ahemad A. Rehman , Amit R. Bhende

The conference offered an international forum for discussion and exchange of knowledge on opportunities and challenges related with all facets and aspects of technological innovations & applications in Industry 4.0, its challenges and way ahead. The objective of this international conference was to provide a platform for policy makers, academicians and researchers to share their experiences and knowledge by presentation of scientific advances made in the field of Industry 4.0.

CRC Press
January 2025:328
Pb: 978-1-032-93784-7: **£44.99**

* For full contents and more information, visit: www.routledge.com/9781032937847

The Art of Data Science

A Practitioner's Guide



Douglas Gray

Although change is constant in business and analytics, some fundamental principles and lessons learned are timeless. Through a series of articles published over the course of his 30+ year career in analytics and technology, author Doug Gray shares the most important lessons he has learned as a practitioner who has operated at the forefront of organizations such as American Airlines and Walmart, delivering solutions that generate hundreds of millions of dollars annually in business value. Readers will gain a perspective on where and how to find success with Analytical Sciences, including the ability to ensure that we apply the right tool, at the right time and right place.

Chapman & Hall
March 2025:216
Pb: 978-1-032-81696-8: **£44.99**
Hb: 978-1-032-81817-7: **£77.99**

* For full contents and more information, visit: www.routledge.com/9781032816968

Technology-Based Teaching and Learning in Pakistani English Language Classrooms



Muhammad Mooneeb Ali

Series: Advances in Digital Technologies for Smart Applications

This book is written with an aim to provide alternative solutions to the conventional methods by integrating modern technology tools in Pakistani classrooms. The scope of this book is widened for language researchers, policy makers, readers and administrators of the government to analyse some of the problems and issues mentioned in this book and develop a roadmap for better education.

CRC Press
December 2024:144
Hb: 978-1-032-58589-5: **£110**

* For full contents and more information, visit: www.routledge.com/9781032585895

The CISO Playbook



Andres Andreu

Series: Security, Audit and Leadership Series

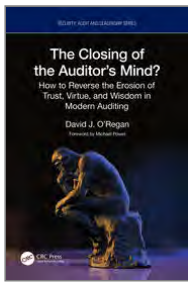
The CISO Playbook aims to provide nothing but real world advice and perspectives to both up and coming cybersecurity leaders as well existing ones looking to grow. The book does not approach cybersecurity leadership from the perspective of the academic, or what it should be, but more from that which it really is. Moreover, it focuses on the many things a cybersecurity leader needs to "be" given that the role is dynamic and ever-evolving, requiring a high level of adaptability.

CRC Press
November 2024:292
Pb: 978-1-032-76207-4: **£44.99**
Hb: 978-1-032-75796-4: **£110**
eBook: 978-1-003-47755-6

* For full contents and more information, visit: www.routledge.com/9781032762074

The Closing of the Auditor's Mind?

How to Reverse the Erosion of Trust, Virtue, and Wisdom in Modern Auditing



David J. O'Regan

Series: Security, Audit and Leadership Series

In *The Closing of the Auditor's Mind?* David J. O'Regan describes internal auditing as an important "binding agent" of social cohesion, for the accountability of individuals and organizations and also at aggregated levels of social trust. However, O'Regan also reveals that internal auditing faces two severe challenges – an external challenge of adaptation and an internal challenge of fundamental reform. *The Closing of the Auditor's Mind?* is a philosophical audit of a profession on the threshold of crisis.

CRC Press

December 2024:194

Pb: 978-1-032-66487-3: £44.99

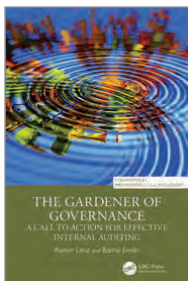
Hb: 978-1-032-66486-6: £110

eBook: 978-1-032-66488-0

* For full contents and more information, visit: www.routledge.com/9781032664873

The Gardener of Governance

A Call to Action for Effective Internal Auditing



Rainer Lenz, Barrie Enslin

Series: Security, Audit and Leadership Series

This book builds on the popular GARDENER OF GOVERNANCE article, enjoying amazing traction in the professional community globally, and translated into 25+ languages. The Lenz-Jepesen (2022) thought-piece introduced the 5 "Ps" as paths for the betterment of internal auditing: People, Public, Performance (Prosperity), Purpose (Profession), and Planet. These main fields of action and focus for the internal audit profession may determine the future role of internal auditing, its legitimacy, relevance, and significance. The book aims to provide practical guidance for performing impactful internal audit assignments.

CRC Press

January 2025:264

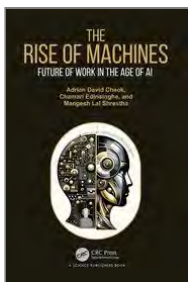
Pb: 978-1-032-88670-1: £44.99

Hb: 978-1-032-85816-6: £110

* For full contents and more information, visit: www.routledge.com/9781032886701

The Rise of Machines

Future of Work in the Age of AI



Adrian David Cheok iUniversity Tokyo Japan, **Chamari Edirisinghe**, **Mangesh Lal Shrestha**

This comprehensive guide explores the transformative impact of AI on future of work and the workplace. It delves into Intelligence Revolution that AI technology is evolving, its applications and impact on jobs, skills and future economy. It reviews ethical dilemmas, and offers practical advice on reskilling and adapting to the AI-driven workplace. Ideal for those keen to navigate and prepare for the evolving workforce with a proactive approach.

CRC Press

November 2024:304

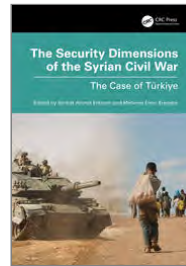
Hb: 978-1-032-58220-7: £110

eBook: 978-1-003-44907-2

* For full contents and more information, visit: www.routledge.com/9781032582207

The Security Dimensions of the Syrian Civil War

The Case of Türkiye



Edited by **Serhat Ahmet Erkmen** Altinbas University, Istanbul, **Mehmet Emin Erendor**

Within the framework of the topics addressed, the book provides a comprehensive reading of the security problems caused by the Syrian Civil War on Türkiye. We believe that this book will shed light on why Türkiye perceives what is happening in Syria from a security perspective. In fact, the main idea of the book is simple: Syria has always been a security issue for Türkiye since the 1930s and it is still a security issue now. After 100 years, the main idea has not changed. The only thing that has changed is how security is defined.

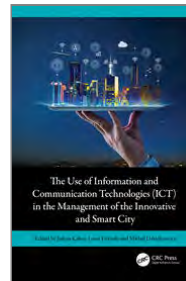
CRC Press

December 2024:238

Hb: 978-1-032-60923-2: £110

* For full contents and more information, visit: www.routledge.com/9781032609232

The Use of Information and Communication Technologies (ICT) in the Management of the Innovative and Smart City



Edited by **Judyta Kabus**, **Luiza Piersiala** Czestochowa University of Technology, Poland, **Michał Dziadkiewicz**

The purpose of this book is to systematize knowledge about the practical application and importance of innovative solutions in the economic and social fields. An important aspect of this edition is the presentation of innovations applied in the field of conservation, not only of energy or environmental resources, but also of economic, social and spatial resources. We propose that this edition provides a knowledge base on the basic concepts of corporate social responsibility (CSR), formulating the important role of management in the context of corporate social responsibility, smart management, smart economy and smart cities.

CRC Press

December 2024:154

Hb: 978-1-032-73628-0: £110

eBook: 978-1-003-46515-7

* For full contents and more information, visit: www.routledge.com/9781032736280

Today is a Great Day!

New Attitudes for Attaining Project Success



Alfonso Bucero

This book is an attitude implementation guide filled with tools, real-world examples and global case studies that address an international audience. Based on the author's award-winning background as project, program manager, project management trainer, and consultant, the book shares case studies, best practices, and mindsets, as well as exercises and checklists, to give a project managers and executives winning attitudes to attain project success.

Auerbach Publications

November 2024:183

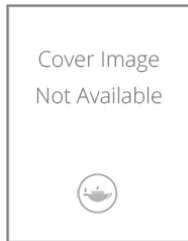
Pb: 978-1-032-77975-1: £22.99

Hb: 978-1-032-77552-4: £120

eBook: 978-1-003-48567-4

* For full contents and more information, visit: www.routledge.com/9781032779751

Understanding Project Practices and Processes



Mel Bost BOT International, Orlando, Florida, USA

This book shares experiences in developing several PMOs and as an IT Project Office with others who may be facing the same issues and similar situations. The book provides insights into the behavior of project teams, project managers, stakeholders, and project organizations. It brings to life the processes and practices of project management, including, risk management, innovation, and design thinking.

Auerbach Publications
March 2025:232

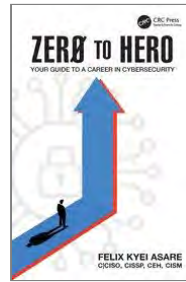
Pb: 978-1-032-97422-4: **£27.99**

Hb: 978-1-032-97357-9: **£89.99**

* For full contents and more information, visit: www.routledge.com/9781032974224

Zero to Hero

Your Guide to a Career in Cybersecurity



Felix Kyei Asare

Zero to Hero: Your Guide to a Career in Cybersecurity is an essential roadmap for anyone aiming to penetrate the vibrant and ever-expanding domain of cybersecurity. In an era where digital threats loom larger and more complex than ever, this book stands as a beacon of clarity and practical wisdom. Tailored to empower novices with no prior knowledge, as well as those with basic understanding seeking to solidify their footing in cybersecurity, it sets itself apart with a laser focus on real-world applicability, ensuring readers not only grasp theoretical concepts but are also primed to implement them effectively.

CRC Press

November 2024:74

Pb: 978-1-032-81835-1: **£22.99**

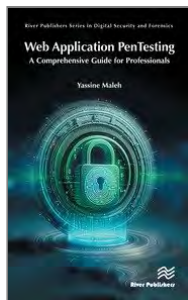
Hb: 978-1-032-80221-3: **£110**

eBook: 978-1-003-50158-9

* For full contents and more information, visit: www.routledge.com/9781032818351

Web Application PenTesting

A Comprehensive Guide for Professionals



Yassine Maleh

Series: River Publishers Series in Digital Security and Forensics

This is an essential resource for navigating the complex, high-stakes world of cybersecurity. It bridges the gap between foundational cybersecurity knowledge and its practical application in web application security. Designed for professionals who may lack formal training in cybersecurity or those seeking to update their skills, this book offers a crucial toolkit for defending against the rising tide of cyber threats. Whether you are an engineer, project manager, or technical leader, this book will empower you to fortify your web applications and contribute effectively to your organization's cybersecurity efforts.

River Publishers

December 2024:270

Hb: 978-8-770-04697-8: **£110**

* For full contents and more information, visit: www.routledge.com/9788770046978

Web Hacking Arsenal and Ethical Hacking Set



Rafay Baloch

The core of this book is its ability to adapt to the evolving nature of web security threats. It prepares the reader not just for the challenges of today but also for the unforeseen complexities of the future. This proactive approach ensures the book's relevance over time, empowering readers to stay ahead in the ever-changing cybersecurity landscape. In the digital age, where web applications form the crux of our interconnected existence, this book emerges as an essential guide to mastering the art and science of web application pentesting.

CRC Press

November 2024:1110

Pb: 978-1-032-99743-8: **£68.99**

* For full contents and more information, visit: www.routledge.com/9781032997438

Advanced Statistical Methods In Life Science



Basavarajaiah DM KVAFSU, Bengaluru, **B Narasimha Murthy** National Health Mission, MOH&FW, Govt. of India

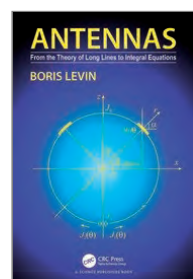
This book introduces the principles and foundations of advanced statistical methods for designing experiments and testing hypotheses in Life sciences. Advanced statistical methods like testing of hypotheses, recent methods of sample size determination/ imputation, estimation techniques, probability distributions and univariate analysis as demonstrated by real data, and their integration into life sciences are included in the book. Advanced topics are presented with sufficient conceptual depth and examples to explain the use of recent statistical techniques and to demonstrate what conclusions can be drawn at the right time using modelling in life science research.

Chapman & Hall
April 2025:320
Pb: 978-1-032-71382-3: £115
Hb: 978-1-032-71153-9: £155

* For full contents and more information, visit: www.routledge.com/9781032713823

Antennas

From the Theory of Long Lines to Integral Equations



Boris Levin

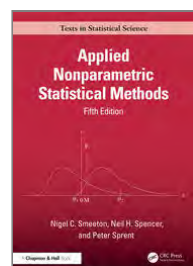
This book on antenna analysis and synthesis relies heavily on the long line theory. The approach taken in it corresponds to the physical content of antenna problems, simplifies mathematical apparatus, and makes it possible to overcome difficulties. The book presents results of using Hallen's hypothesis about the usefulness of applying capacitive loads. Rigorous methods for analysis of the microstrip and large loop antennas are proposed.

CRC Press
December 2024:536
Hb: 978-1-032-58215-3: £145

* For full contents and more information, visit: www.routledge.com/9781032582153

5TH EDITION

Applied Nonparametric Statistical Methods



Neil Spencer, **Nigel C. Smeeton** Guy's King & St. Thomas School of Medicine, London, UK, **Peter Sprent** Dundee University, Scotland

Series: *Chapman & Hall/CRC Texts in Statistical Science*

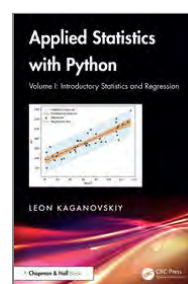
A comprehensive course text in nonparametric techniques suitable for undergraduate mathematics students. It assumes only basic previous experience of statistics and with algebra kept to a minimum it is also ideal for quantitative methods modules delivered to undergraduate or postgraduate students in science, business, and health service training. It is an invaluable resource for researchers, medical practitioners, business managers, research and development staff, and others needing to interpret quantitative information.

Chapman & Hall
February 2025:770
Hb: 978-0-367-34489-4: £77.99

* For full contents and more information, visit: www.routledge.com/9780367344894

Applied Statistics with Python

Volume I: Introductory Statistics and Regression



Leon Kaganovskiy Touro University, USA

Applied Statistics with Python concentrates on applied and computational aspects of statistics, focussing on conceptual understanding and Python-based calculations. This book compiles multiple aspects of applied statistics, teaching the reader useful skills in statistics and computational science. This book does not require previous experience with statistics and Python, explaining the basic concepts before developing them into more advanced methods from scratch. It is intended for undergraduate students in business, economics, biology, social sciences, and natural science, whilst also being useful as a supplementary text for more advanced students.

Chapman & Hall
March 2025:336
Hb: 978-1-032-75193-1: £82.99

* For full contents and more information, visit: www.routledge.com/9781032751931

3RD EDITION

Applied Survey Data Analysis



Brady T. West University of Michigan, Ann Arbor, USA, **Steve G. Heeringa**, **Patricia A. Berglund**

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

Building on the wealth of material on practical approaches to descriptive analysis and regression modeling from the first and second editions, this third edition further expands the topics covered and presents more step-by-step examples of modern approaches to the analysis of survey data using the newest statistical software procedures.

Chapman & Hall
March 2025:648
Hb: 978-1-032-74728-6: £74.99

* For full contents and more information, visit: www.routledge.com/9781032747286

Biostatistics for Bioassay



Ann Yellowlees, **Matthew Stephenson**

Series: *Chapman & Hall/CRC Biostatistics Series*

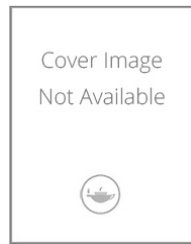
This book is about the statistical analysis techniques that are needed in order to report the results of biological assays. These assays are needed for testing all biological medicines, such as vaccines and cell therapies, to allow them to be released for use.

Chapman & Hall
December 2024:318
Hb: 978-1-032-57972-6: £89.99

* For full contents and more information, visit: www.routledge.com/9781032579726

Bivariate Integer-Valued Time Series Models

BIVARIATE Models



Sunecher Yuvraj University of Technology Mauritius,
Mamode Khan Naushad University of Mauritius,
Vandna Jowaheer University of Mauritius

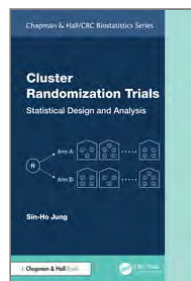
This book proposes some novel models based on the autoregressive and moving average structures under various distributional assumptions of the innovation series for analysing non-stationary bivariate time series of counts. Some bivariate models that allow for different levels of dispersion as well as non-stationarity are suggested, specifically, BINAR(1) and BINMA(1) models under Poisson, NB and COM-Poisson innovations are constructed and tested. This book also develops a novel estimation procedure for estimating the parameters of the proposed BINAR(1) and BINMA(1) models. A useful resource for scholars, researchers and academics in the field of time series models.

Chapman & Hall
 April 2025:336
 Hb: 978-1-032-98767-5: £120

* For full contents and more information, visit: www.routledge.com/9781032987675

Cluster Randomization Trials

Statistical Design and Analysis



Sin-Ho Jung

Series: *Chapman & Hall/CRC Biostatistics Series*

This book covers all three types of trials (i.e. CRTs, SRTs, and IRGT trials) resulting in clustered data. For outcome variables of binary, continuous, and time to event types, we investigate generalized estimating equation, type statistical tests and their sample size formulas. Also presented are random number generation algorithms for different types of outcome variables and randomization methods. The methods are discussed in terms of clinical trials, but can be used to design and analyze any types of experiments involving clustered data. This book also discussed statistical methods for various types of biomarker studies, including ROC methods, with clustered data.

Chapman & Hall
 December 2024:316
 Hb: 978-1-032-11080-6: £120
 eBook: 978-1-003-22195-1

* For full contents and more information, visit: www.routledge.com/9781032110806

Constructing Insurable Risk Portfolios



Edward W. Frees University of Wisconsin-Madison, USA

Series: *Chapman & Hall/CRC Series in Actuarial Science*

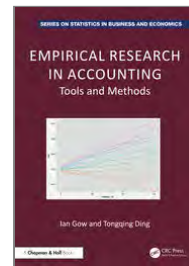
Drawing inspiration from Markowitz portfolio theory, it leverages techniques from probability, statistics, and optimization to build algorithms that construct optimal risk insurable portfolios under budget constraints.

Chapman & Hall
 March 2025:400
 Hb: 978-1-032-74504-6: £89.99

* For full contents and more information, visit: www.routledge.com/9781032745046

Empirical Research in Accounting

Tools and Methods



Ian D. Gow University of Melbourne, Australia, **Tongqing Ding** University of Melbourne, Australia

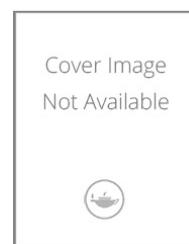
Series: *Chapman and Hall/CRC Series on Statistics in Business and Economics*

This textbook provides the foundation for a course that takes PhD students in empirical accounting research from the very basics of statistics, data analysis, and causal inference up to the point at which they conduct their own research. Starting with foundations in statistics, econometrics, causal inference, and institutional knowledge of accounting and finance, the book moves on to an in-depth coverage of the core papers in capital market research. Readers of the book will develop deep data analysis skills using modern tools. Extensive replication and simulation analysis is included throughout.

Chapman & Hall
 December 2024:592
 Hb: 978-1-032-58650-2: £100

* For full contents and more information, visit: www.routledge.com/9781032586502

Exercises in Statistical Reasoning



Michael R. Schwob, **Yunshan Duan**, **Beatrice Cantoni**, **Bernardo Flores-Lopez**, **Stephen G. Walker** University of Texas at Austin, USA

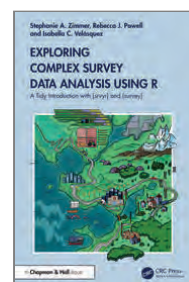
A collection of exercises designed to strengthen creative problem-solving skills. The exercises are designed to encourage readers to understand the key points of a problem while seeking knowledge, rather than separating out these two activities. To complete the exercises, readers may need to reference the literature, which is how research-based knowledge is often acquired.

Chapman & Hall
 April 2025:266
 Pb: 978-1-032-78486-1: £49.99
 Hb: 978-1-032-79710-6: £139.99

* For full contents and more information, visit: www.routledge.com/9781032784861

Exploring Complex Survey Data Analysis Using R

A Tidy Introduction with {srvyr} and {survey}



Stephanie Zimmer, **Rebecca Powell**, **Isabella Velásquez**

In this book, readers embark on an in-depth journey into conducting complex survey analysis with the {srvyr} package and tidyverse family of functions from the R programming language. Intended for intermediate R users familiar with the basics of the tidyverse, this book gives readers a deeper understanding of applying appropriate survey analysis techniques using {srvyr}, {survey}, and other related packages. Readers will develop the skills necessary to perform impactful survey analysis on survey data collected through a randomized sample design. Additionally, this book teaches readers how to interpret and communicate results of survey data effectively.

Chapman & Hall
 November 2024:360
 Hb: 978-1-032-30286-7: £67.99

* For full contents and more information, visit: www.routledge.com/9781032302867

Game Theory for Applied Econometricians

Data Analytics with R



Christopher P. Adams Federal Trade Commission

Series: Chapman and Hall/CRC Series on Statistics in Business and Economics

Over the last 30 years the practice and use of game theory has changed dramatically, yet textbooks continue to present game theory with algebraic formalism and toy models. This book, on the other hand, illustrates game theory concepts using real-world data and analyses problems with real policy implications. The examples include an analysis of bargaining between hospitals and insurers, equilibrium entry of retail tire stores, bid rigging in timber auctions and contracts in 19th century whaling. This book is aimed at the general reader with the equivalent of a bachelor's degree in economics, statistics or some more technical field.

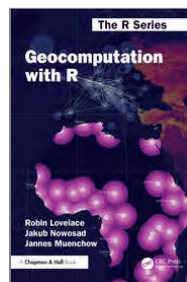
Chapman & Hall
May 2025:282

Hb: 978-1-032-39833-4: £74.99

* For full contents and more information, visit: www.routledge.com/9781032398334

2ND EDITION

Geocomputation with R



Robin Lovelace University of Leeds, UK, **Jakub Nowosad**, **Jannes Muenchow** Friedrich Schiller University, Jena, Germany

Series: Chapman & Hall/CRC The R Series

Geocomputation with R is for people who want to analyze, visualize, and model geographic data with open source software. The book provides a foundation for learning how to solve a wide range of geographic data analysis problems in a reproducible, and therefore scientifically sound and scalable way. The second edition features numerous updates, including the adoption of the high-performance terra package for all raster data processing, detailed coverage of the spherical geometry engine s2, updated information on coordinate reference systems and new content on openEO, STAC, COG, and gdalcubes. The book equips you with the knowledge and skills to tackle a wide range of issues.

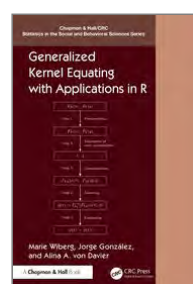
Chapman & Hall
January 2025:424

Pb: 978-1-032-24888-2: £51.99

Hb: 978-1-032-22979-9: £140

* For full contents and more information, visit: www.routledge.com/9781032248882

Generalized Kernel Equating with Applications in R



Marie Wiberg Umea University, **Jorge Gonzalez**, **Alina A. von Davier** Educational Testing Service, USA

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

This book is a comprehensive guide for statisticians, psychometricians, and educational researchers aiming to master test score equating. It introduces the Generalized Kernel Equating (GKE) framework, providing the necessary tools and methodologies for accurate and fair score comparisons. It presents test score equating as a statistical problem and covers all commonly used data collection designs. It details the five steps of the GKE framework: presmoothing, estimating score probabilities, continuization, equating transformation and evaluating the equating transformation. Readers are equipped with an advanced knowledge and practical skills for implementing test score equating methods.

Chapman & Hall
November 2024:272

Hb: 978-1-138-19698-8: £89.99

eBook: 978-1-315-28377-7

* For full contents and more information, visit: www.routledge.com/9781138196988

Handbook of Generalized Pairwise Comparisons

Methods for Patient-Centric Analysis



Edited by **Marc Buyse** Founder of IDDI, Belgium., **Everardo D. Saad Sr.** Med. Expert, IDDI., **Johan Verbeek** Prof. Uni of Hasselt, **Mickaël De Backer Sr.** Research BioST. IDDI., **Vaiva Deltuvaite-Thomas** Research Stat. IDDI, **Geert Molenberghs** Prof. Uni of Hasselt.

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

In today's healthcare landscape, there is a pressing need for quantitative methodologies that include the patients' perspective in any treatment decision. Handbook of Generalized Pairwise Comparisons: Methods for Patient-Centric Analysis covers the statistical foundations of generalized pairwise comparisons (GPC), applications in various disease areas, implications for regulatory approvals and benefit-risk analyses, and considerations for patient-centricity in clinical research. With contributions from leading experts in the field, this book stands as an essential resource for a more holistic and patient-centric assessment of treatment effects.

Chapman & Hall

March 2025:600

Pb: 978-1-032-48805-9: £53.99

Hb: 978-1-032-48803-5: £170

* For full contents and more information, visit: www.routledge.com/9781032488059

Geocomputation with Python



Michael Dorman, **Anita Graser**, **Jakub Nowosad**, **Robin Lovelace** University of Leeds, UK

Series: Chapman & Hall/CRC The Python Series

Geocomputation with Python is a comprehensive resource for working with geographic data with the most popular programming language in the world. The book gives an overview of Python's capabilities for spatial data analysis, as well as dozens of worked-through examples covering the entire range of standard GIS operations. Another unique feature is that this book is part of a wider community. Geocomputation with Python is a sister project of Geocomputation with R (Lovelace, Nowosad, and Muenchow 2019), a book on geographic data analysis, visualization, and modeling using the R programming language that has numerous contributors and an active community.

Chapman & Hall
February 2025:344

Pb: 978-1-032-46065-9: £51.99

Hb: 978-1-032-45891-5: £140

* For full contents and more information, visit: www.routledge.com/9781032460659

Introduction to Applied Spatial Econometrics



Roger S. Bivand, **Gianfranco Piras** West Virginia University, Morgantown, USA

The book addresses the underlying question of mis-specification in models estimated with spatial data, which can have many sources: variables not adequately operationalizing theoretical concepts; observations not matching the actual (but often unobservable) entities implied by spatial processes; omitted variables and errors in variables; inappropriate functional form leading to spatial patterning, etc. When spatial econometrics focusses on model estimation techniques, it is most often assumed that mis-specification is restricted to spatial autocorrelation and occasionally heteroskedasticity.

Chapman & Hall
May 2026:400

Hb: 978-1-482-23638-5: £61.99

* For full contents and more information, visit: www.routledge.com/9781482236385

Introduction to Quantitative Social Science with Python



WeiQi Zhang, Dmitry Zinoviev

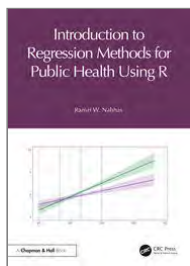
Series: Chapman & Hall/CRC The Python Series

Departing from traditional methodologies of teaching data analysis, this book presents a dual-track learning experience, with both Executive and Technical Tracks, designed to accommodate readers with various learning goals or skill levels. Through integrated content, readers can explore fundamental concepts in data analysis while gaining hands-on experience with Python programming, ensuring a holistic understanding of theory and practical application in Python. This book offers a comprehensive and accessible guide to mastering the art and science of data analysis in social science research.

Chapman & Hall
November 2024:356
Pb: 978-1-032-35659-4: £50
Hb: 978-1-032-35460-6: £140
eBook: 978-1-003-32789-9

* For full contents and more information, visit: www.routledge.com/9781032356594

Introduction to Regression Methods for Public Health Using R



Ramzi W. Nahhas Wright State University

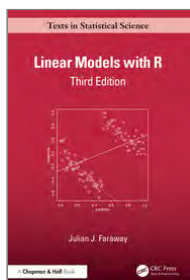
Introduction to Regression Methods for Public Health Using R teaches regression methods for continuous, binary, ordinal, and time-to-event outcomes using R as a tool. The focus of this book is on understanding and fitting regression models, diagnosing model fit, and interpreting and writing up results. Examples are drawn from public health and clinical studies. Designed for students, researchers, and practitioners with a basic understanding of introductory statistics, this book teaches the basics of regression and how to implement regression methods using R, allowing the reader to enhance their understanding and begin to grasp new concepts and models.

Chapman & Hall
December 2024:456
Hb: 978-1-032-20307-2: £89.99

* For full contents and more information, visit: www.routledge.com/9781032203072

3RD EDITION

Linear Models with R



Julian J. Faraway University of Bath, UK

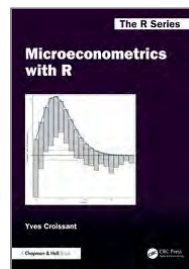
Series: Chapman & Hall/CRC Texts in Statistical Science

Linear Models with R, Third Edition explains how to use linear models in physical science, engineering, social science, and business applications. The book incorporates several improvements that reflect how the world of R has expanded since the publication of the second edition. Like its widely praised, best-selling predecessor, this edition combines statistics and R to seamlessly give a coherent exposition of the practice of linear modeling. The text offers up-to-date insight on essential data analysis topics, from estimation, inference, and prediction to missing data, factorial models, and block designs. Numerous examples illustrate how to apply the different methods using R.

Chapman & Hall
February 2025:392
Hb: 978-1-032-58398-3: £74.99

* For full contents and more information, visit: www.routledge.com/9781032583983

Microeconometrics with R



Yves Croissant Université de La Reunion, France

Series: Chapman & Hall/CRC The R Series

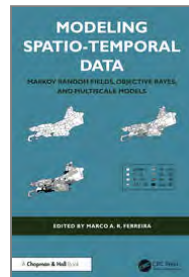
Microeconometrics became increasingly popular in the last decades, thanks to the availability of many individual data sets and to the development of computer performance. The book is devoted to the ordinary least square estimator. Matrix algebra is progressively introduced in this part and a special attention is paid on the interpretation of the estimated coefficients. It also goes beyond the basic OLS estimator by testing the hypothesis on which this estimator is based on and providing more complex estimators relevant when some of these hypotheses are violated. The book also presents specific estimators devoted to « special » responses, eg count, binomial or duration data.

Chapman & Hall
February 2025:520
Hb: 978-0-367-55446-0: £74.99

* For full contents and more information, visit: www.routledge.com/9780367554460

Modeling Spatio-Temporal Data

Markov Random Fields, Objective Bayes, and Multiscale Models



Edited by **Marco A. R. Ferreira** Virginia Tech, Blacksburg, USA

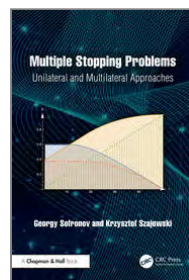
Several important topics in spatial and spatio-temporal statistics developed in the last 15 years have not received enough attention in textbooks. This book aims to fill some of this gap by providing an overview of a variety of recently proposed approaches for the analysis of spatial and spatio-temporal datasets.

Chapman & Hall
November 2024:292
Hb: 978-1-032-62209-5: £120
eBook: 978-1-032-62344-3

* For full contents and more information, visit: www.routledge.com/9781032622095

Multiple Stopping Problems

Unilateral and Multilateral Approaches



Georgiy Sofronov, Krzysztof Szajowski

This book presents the theory of rational decisions involving the selection of stopping times in observed discrete-time stochastic processes, both by single and multiple decision-makers. Readers will become acquainted with the models, strategies, and applications of these models. The book will be of interest to researchers and practitioners in fields such as economics, finance, and engineering. It could also be used by graduate students doing a research degree in insurance, economics or business analytics or an advance undergraduate course in mathematical sciences.

Chapman & Hall
December 2024:374
Pb: 978-1-032-52544-0: £44.99
Hb: 978-1-032-52543-3: £77.99
eBook: 978-1-003-40710-2

* For full contents and more information, visit: www.routledge.com/9781032525440

Multivariate Statistics

Classical Foundations and Modern Machine Learning



Hemant Ishwaran University of Miami, U.S.A

This book explores multivariate statistics from both traditional and modern perspectives. The first section covers core topics like multivariate normality, MANOVA, discrimination, PCA, and canonical correlation analysis. The second section includes modern concepts such as gradient boosting, random forests, variable importance, and causal inference. Another central theme is the concept of training error. While introductory courses often emphasize that reducing training error can lead to overfitting, training error is also known as empirical risk. Empirical risk is vital in statistical learning theory and is key to determining whether learning is possible.

Chapman & Hall
March 2025:504
Hb: 978-1-032-75879-4: £115

* For full contents and more information, visit: www.routledge.com/9781032758794

Random Patterns and Structures in Spatial Data



Radu Stoica Univ de Lorraine Nancy, France

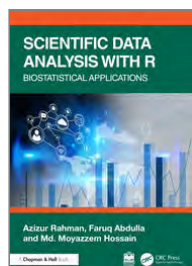
The book presents a general mathematical framework able to detect and to characterize, from a morphological and statistical perspective, patterns hidden in spatial data. The mathematical tool employed is a Gibbs point process with interaction, which permits us to reduce the complexity of the pattern. It presents the framework, step by step, in three major parts: modeling, simulation, and inference. Each of these parts contains a theoretical development followed by applications and examples.

Chapman & Hall
April 2025:296
Hb: 978-1-032-45936-3: £99.99

* For full contents and more information, visit: www.routledge.com/9781032459363

Scientific Data Analysis with R

Biostatistical Applications



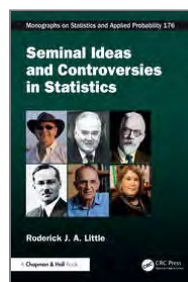
Azizur Rahman, Faruq Abdulla, Md. Moyazzem Hossain

This book is the ideal companion in navigating the convergence of statistical methodologies and data science techniques with diverse applications implemented in the open-source environment of R. This book is intended for students, researchers, and professionals eager to harness the combined power of biostatistics, data science, and the R programming language while gathering vital statistical knowledge needed for cutting-edge scientists in all fields. It is useful for those seeking to understand the basics of data science and statistical analysis, or looking to enhance their skills in handling any simple or complex data including biological, health, medical, and industry data.

Chapman & Hall
November 2024:418
Hb: 978-1-032-54692-6: £82.99
eBook: 978-1-003-42618-9

* For full contents and more information, visit: www.routledge.com/9781032546926

Seminal Ideas and Controversies in Statistics



Roderick J. A. Little

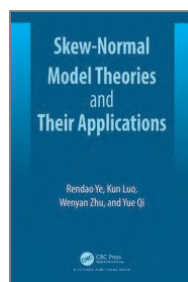
Series: *Chapman & Hall/CRC Monographs on Statistics and Applied Probability*

Statistics has developed as a field through seminal ideas and fascinating controversies. This book concerns a wide-ranging set of 13 important statistical topics, grouped into three general areas: Philosophical Approaches to Statistical Inference; Important Statistical Methodology for Applications; and Topics on Statistical Design.

Chapman & Hall
March 2025:216
Pb: 978-1-032-49356-5: £52.99
Hb: 978-1-032-49717-4: £140

* For full contents and more information, visit: www.routledge.com/9781032493565

Skew-Normal Model Theories and Their Applications



Rendao Ye Hangzhou Dianzi University, China, **Wenyan Zhu** Hangzhou Dianzi Uni, China, **Yue Qi** Hangzhou Dianzi Uni, China, **Kun Luo** Hangzhou Normal Uni, China

This book focuses on several skew-normal mixed effects models, and systematically explores the statistical inference theories, methods, and applications of parameters of interest. This book is of academic value, since it helps to establish a series of statistical inference theories and methods for skew-normal mixed effects models. It will also provide efficient methods and tools for practical data analysis in various fields including economics, finance, biology and medical science, which features its application value.

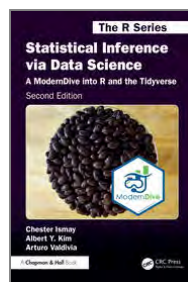
CRC Press
November 2024:272
Hb: 978-1-032-69469-6: £105
eBook: 978-1-032-71147-8

* For full contents and more information, visit: www.routledge.com/9781032694696

2ND EDITION

Statistical Inference via Data Science

A Modern Dive into R and the Tidyverse



Chester Ismay DataCamp, **Albert Y. Kim**, **Arturo Valdivia**

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

Offers a comprehensive guide to learning statistical inference with data science tools widely used in industry, academia, and government. Ideal for those new to statistics or looking to deepen their knowledge, this edition provides a clear entry point into data science and modern statistical methods.

Chapman & Hall
March 2025:496
Pb: 978-1-032-70837-9: £59.99
Hb: 978-1-032-72451-5: £150

* For full contents and more information, visit: www.routledge.com/9781032708379

Statistical Outliers and Related Topics



Edited by **Mir Masoom Ali**, **Rahmatullah Imon** Ball State University, USA, **Irfan Ali** Aligarh Muslim University, India, **Haitham M. Yousof** Benha University, Egypt

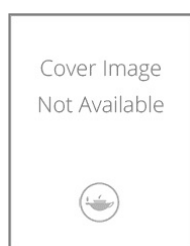
This book comprises articles of different aspects of outliers and related topics written by experts. It includes outliers, their sources, consequences, identification, computational and robustness issues, handling of outliers in diversified areas of statistics such as univariate and multivariate data, linear and generalized linear models, time series, linear functional and structural models, circular data, spatial data, big data, high dimensional data, multi-view data.

CRC Press
January 2025:514
Hb: 978-1-032-46056-7: £145

* For full contents and more information, visit: www.routledge.com/9781032460567

Supervised Learning

Mathematical Foundations and Real-world Applications



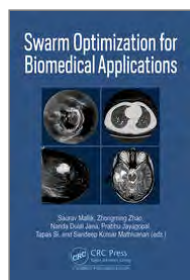
Dalia Chakrabarty Department of Mathematics, Brunel University London

This book discusses the relevance of probabilistic supervised learning, to the pursuit of automated and reliable prediction of an unknown that is in a state of relationship with another variable. It provides methods for secured mechanistic learning of the function that represents this relationship between the output and input variables, where said learning is undertaken within the remit of real-world information that can be messy in different ways. To help with the background, the book includes reviews on stochastic processes and basic probability theory. This makes it valuable for students across disciplines, including students of computational sciences, statistics, and mathematics.

Chapman & Hall
April 2025:342
Hb: 978-1-032-28330-2: £115

* For full contents and more information, visit: www.routledge.com/9781032283302

Swarm Optimization for Biomedical Applications



Edited by **Saurav Mallik** University of Arizona, US, **Zhongming Zhao** The Uni of Texas Health Sci Center, USA, **Nanda Dulal Jana** National Ins of Tech Durgapur, India, **Prabhu Jayagopal** Vellore Institute Tech, India, **Tapas Si** University of Eng & Management, India, **Sandeep Kumar Mathivanan**

With the recent advancements in machine learning (ML) and deep learning (DL), ML/DL techniques are being widely used in biomedical engineering to develop intelligent decision-making healthcare systems in real-time. Various optimization techniques have been employed to optimize parameters, hyper-parameters. Architectural information of ML/DL models are being applied to biological, medical, and signal data. The book reviews the utility of Swarm Optimization technique to design ML/DL models for better solutions in biomedical engineering.

CRC Press
February 2025:326
Hb: 978-1-032-69733-8: £130

* For full contents and more information, visit: www.routledge.com/9781032697338

2ND EDITION

The Effect

An Introduction to Research Design and Causality



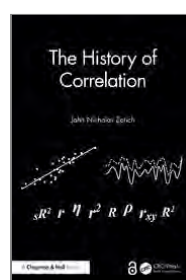
Nick Huntington-Klein

The Effect: An Introduction to Research Design and Causality is about research design, specifically concerning research that uses non-experimental data to figure out whether one thing causes another. It is separated into two halves, each with different approaches to that subject. It introduces the concept of identification thoroughly and clearly and discusses it as a process of trying to isolate variation that has a causal interpretation. Concepts are demonstrated with a heavy emphasis on graphical intuition and the question of what we do to data. When we "add a control variable" what does that actually do?

Chapman & Hall
April 2025:686
Pb: 978-1-032-58022-7: £36.99

Hb: 978-1-032-58194-1: £110
* For full contents and more information, visit: www.routledge.com/9781032580227

The History of Correlation



John Nicholas Zorich

This book is not only a history of the word "correlation" and of the various meanings it was given in publications by scientists during the past two centuries, but also a history of how the correlation coefficient has been interpreted during that time and of how the explanation of its meaning evolved in textbooks and journal articles.

Chapman & Hall
December 2024:336
Pb: 978-1-032-86504-1: £44.99
Hb: 978-1-032-86524-9: £67.99

* For full contents and more information, visit: www.routledge.com/9781032865041

&	6	Animation Craft	9	Blockchain and Digital Twin Applications in Smart Agriculture	50	Cybersecurity and Data Science Innovations for Sustainable Development of HEICC	52
β -Carbolines	6	Animation in Austria	10	Blockchain Technology for Cyber Defense, Cyber Security, and Countermeasures	50	Cybersecurity in Healthcare Applications	13
2	2	An Introduction to Generative Drug Discovery	2	Breaking Through Bytes	50	Cyber Security in the Age of Artificial Intelligence and Autonomous Weapons	51
2D Metals	39	Anisotropy of Metamaterials	39	Business Process Analytics	31	Cybersecurity Leadership for Healthcare Organizations and Institutions of Higher Education	52
3	3	Antennas	65	C		D	
3D Printing for Construction in the Transformation of the Building Industry	47	Applications of Accelerators in the Quantum Technology Era	39	CAD-Based Optical Design with Quaoa	39	Data Analytics for Business Intelligence	14
5	5	Applications of Big Data and Machine Learning in Galaxy Formation and Evolution	39	Calculating Theoretical Yield Is Not Impossible!	2	Data Analytics for Finance Using Python	52
5G Enabled Technology for Smart City and Urbanization System	8	Applied Nonparametric Statistical Methods	65	Calculus for Business and Economics	31	Data Analytics for Smart Infrastructure	14
A		Applied Statistics with Python	65	Carbon-Based Nanocomposite Applications and Microelectronic Technologies	3	Data Science and Analytics with Python	14
A Beginner's Guide to Mathematical Proof	29	Applied Survey Data Analysis	48	Carbon Catalysis	2	Decision Analysis through Modeling and Game Theory	31
A Concise Introduction to Financial Derivatives	29	Applied Swarm Intelligence	48	Cardboard Ghosts	12	Deep Learning Applications in Operations Research	52
A Concise Introduction to Machine Learning	8	Applying Color Theory to Digital Media and Visualization	48	Catalytic Transformations of Sustainable and Versatile Furanic Chemicals	3	Deep Learning in Diabetes Mellitus Detection and Diagnosis	14
Activity, Behavior, and Healthcare Computing	47	Applying Metaverse Technologies to Human-Computer Interaction for Healthcare	49	Challenges and Solutions in Internet of Things-Based Smart Applications	12	Demystifying 101 Essential Artificial Intelligence Terms for Everyone	14
Adopting Artificial Intelligence Tools in Higher Education	8	Arbitrage and Rational Decisions	30	Chemical and Clinical Applications of Tempol	3	Demystifying Creativity	14
Advanced Fractal Graph Theory and Applications	30	Artificial Intelligence	10	Chemistry and Biology of Beta-Lactams	3	Derivatives Unlocked	32
Advanced Materials for Batteries	2	Artificial Intelligence-Based 6G Networking	49	Chemistry Calculations for Beginners	3	Design, Development and Analysis of Lunar Crescent Visibility Criterion With Python	40
Advanced Statistical Methods In Life Science	65	Artificial Intelligence and Actuarial Science	10	Chirality and Wobbling in Atomic Nuclei	40	Designing Interactions with Robots	15
Advanced Techniques for Anomaly Detection	8	Artificial Intelligence and Ethics	10	Classical Mechanics	3	Developing AI, IoT and Cloud Computing-based Tools and Applications for Women's Safety	15
Advancements in AI and IoT for Chip Manufacturing and Defect Prevention	47	Artificial Intelligence and IoT for Cyber Security Solutions in Smart Cities	10	Click Chemistry	4	Developing Web Sites with HTML, CSS and JavaScript	52
Advancements in Cyber Crime Investigations and Modern Data Analytics	47	Artificial Intelligence and Machine Learning for Sustainable Development	11	Clockwork Game Design	12	Digital Farming and Smart Agriculture for Sustainable Future	15
Advances in Algebra Analysis and Topology	30	Artificial Intelligence for Blockchain and Cybersecurity Powered IoT Applications	49	Cloud Computing for Smart Education and Collaborative Learning	12	Digital Product Management	15
Advances in High-Order Predictive Modeling	30	Artificial Intelligence for Precision Agriculture	49	Cloud Computing for Smart Education and Cluster Randomization Trials	66	Discrete Mathematics	32
Advances of Machine Learning for Knowledge Mining in Electronic Health Records	8	Artificial Intelligence in Architecture and the Built Environment	11	Collective Intelligence	12	Dreaming a way (of) Life	15
Advancing Healthcare through Data-driven Innovations	8	Artificial Intelligence in Material Science	49	Completely Regular Codes in Distance Regular Graphs	31	E	
A First Course on Orthogonal Polynomials	29	Artificial Intelligence of Things for Smarter Eco-Cities	11	Computational Intelligence in Industry 4.0 and 5.0 Applications	50	Edge AI for Industry 5.0 and Healthcare 5.0 Applications	52
Agile Security in the Digital Era	47	Assimilation of Blockchain Technology with IoT	49	Computational Techniques for Smart Manufacturing in Industry 5.0	12	Effective Serious Games Development	15
AI and Blockchain in Smart Grids	47	A Stitch in Line	29	Computing, Communication and Intelligence	13	Electrodynamics of Superconductors	40
AI and Law	9	A Textbook on Linear Algebra with its Applications	29	Confinement and Stability of Fast Ions in Fusion Plasmas	40	Embedded Artificial Intelligence	16
AI Based Advancements in Biometrics and its Applications	9	B		Considerations on the AI Endgame	13	Embedded System for Biomedical Application	16
AI for Creatives	48	Back to Statistics	11	Constructing Insurable Risk Portfolios	31	Emerging Materials for Energy and Sensing Applications	40
AI for Humanitarianism	9	Beyond Resilience	50	Contemporary Abstract Algebra	31	Emotional Intelligence in the Digital Era	53
AI for Understanding Human Conversations	9	Big Data and Blockchain Technology for Secure IoT Applications	50	Create and Export Tables Using Stata	51	Empirical Research in Accounting	66
AIoT and Smart Sensing	48	Bio-inspired Algorithms in Machine Learning and Deep Learning for Disease Detection	11	Creating an EVEN Greater Whole	51	Empowering Digital Education with ChatGPT	16
AI Revolution	48	Biopharmaceutical Informatics	2	Creating High-Quality Vegetation for Games	13	Energy, Matter, and Change	4
Algebra	30	Biophysical Chemistry	39	Creating Images Using AI	13	Energy Efficiency and Robustness of Advanced Machine Learning Architectures	16
Algebraic Number Theory and Fermat's Last Theorem	30	Biosensors Based on Graphene, Graphene Oxide and Graphynes for Early Detection of Cancer	2	Cyber CISO Marksmanship	51	Ensemble Methods	16
Allegorithmic	9	Biostatistics for Bioassay	65	Cyber Investigations of Smart Devices	51	Enterprise Fortress	53
Alternative Investments Technology	48	Bivariate Integer-Valued Time Series Models	66	CyberMedics	51	Epileptic Seizure Prediction Using Electroencephalogram Signals	53
A Mathematical Tour	29			Cyberology	13	Equity Release Finance	32

Ethics in Human-like Robots	16	Governing the Future	19	Introduction to Mathematical Modeling and Computer Simulations	34	Modern Technologies in Healthcare	22
Every Bit Counts	17	Graph Coloring	19	Introduction to Particle Physics and Cosmology	42	Mr. In-Between	23
Evolution and Advances in Computing Technologies for Industry 6.0	17	Graph Learning Techniques	19	Introduction to Qualitative Methods for Differential Equations	34	Multimodal Biometric Identification System	23
Exercises in Statistical Reasoning	66	Guide to Classical Physics	41	Introduction to Quantitative Social Science with Python	68	Multiple Stopping Problems	68
Explainable Artificial Intelligence: A Practical Guide	53	Guide to SRv6 Network Deployment	54	Introduction to Regression Methods for Public Health Using R	68	Multivariate Statistics	69
Explainable Artificial Intelligence in Medical Imaging	53	H		Introductory Solid State Physics	42	N	
Exploring Complex Survey Data Analysis Using R	66	Habitable Exoplanets for Extra-Terrestrials	41	IoT and Machine Learning for Smart Applications	22	Naïve Set Theory	36
Exploring Linear Algebra	32	Handbook of Acid-Base Indicators	5	IoT Enabled-DC Microgrids	55	Natural Scaffolds for Prevention and Treatment of Neurodegenerative Disorders	5
F		Handbook of Carbon Sensors	41	IoT Sensors	42	Navigating the Cyber Maze	57
Face It	17	Handbook of Generalized Pairwise Comparisons	67	Ironwill 360° Leadership	55	Non-Newtonian Sequence Spaces with Applications	36
Floating Point Numerics for Games and Simulations	17	Handbook of Inclusive Knowledge Management	54	K		Nuclear Materials	43
Fluorescent Chemosensing and Bioimaging	4	Hands-On Accelerator Physics Using MATLAB®	41	Key enabling technologies for future wireless, wired, optical and satcom applications	56	O	
Foundations of AI and Robotics	17	Healthcare-Driven Intelligent Computing Paradigms to Secure Futuristic Smart Cities	19	L		Offensive and Defensive Cyber Security Strategies	57
Foundations of Artificial Intelligence and Robotics	17	High Power Microwaves	41	Leveraging Blockchain Technology	56	Oil Well Production Mechanism	43
Foundations of Artificial Intelligence and Robotics	18	Holography	41	Lights and Shadows on Generalizations in Fixed Point Theory	34	Online Gaming in India	23
Foundations of Crystallography with Computer Applications	4	Human Power	20	Linear Models with R	68	On the Animation Trail	23
Foundations of Quantitative Finance, Book VI: Densities, Transformed Distributions, and Limit Theorems	32	Human vs ChatGPT – Language of Advertising in Beauty Products Advertisements	20	Lozi, Hénon and Belykh Chaotic Attractors	34	Open Source Intelligence (OSINT) – A practical Introduction	57
From Street-smart to Web-wise®	53	Hybrid Nanostructures as Solid-State Sensors for IoT	20	Luminescent Thermometers	42	Optical Frequency Combs	43
From Street-smart to Web-wise®	54	I		M		Optimal Spending on Cybersecurity Measures	57
Functional Analysis for the Applied Mathematician	32	I-Function and Its Applications	33	Machine Learning for Radio Resource Management and Optimization in 5G and Beyond	56	Order from Chaos	5
Fundamental Level Design and Analysis	18	Image Processing and Machine Learning	20	Malliavin Calculus in Finance	34	Organizations and Technology for Sustainability	23
Fusion and Integration of Clouds, Edges, and Devices	18	Industry Innovation in the Era of Artificial Intelligence	20	ManusCrypt	56	Organized Skepticism in the Age of Misinformation	23
G		Integration of Cloud Computing and IoT	20	Mastering Cybersecurity	56	P	
Game AI Uncovered	18	Intelligence in Chip: Integrated Sensors and Memristive Computing	55	Mastering Technical Art in Unreal Engine	22	Parallel and High-Performance Computing in Artificial Intelligence	57
Game Design Deep Dive	18	Intelligent Computation and Analytics on Sustainable Energy and Environment	21	Mastering Technical Art in Unreal Engine	22	Pharmaceutical Dosage Forms and Drug Delivery	5
Game Narrative Design and UX Fundamentals	18	Intelligent Computing and Optimization for Sustainable Development	55	Mathematical Analysis	35	Physics	43
Game Theory for Applied Econometricians	67	Intelligent Designs, Innovations and Sustainability in Agriculture 4.0	55	Mathematical Analysis and its Applications	35	Physiological Optical Imaging	43
Gas Cleaning Processes in Refining Technology	4	Interactions	55	Mathematical Foundations of Computer Science	22	Practical Guide to Machine Learning, NLP, and Generative AI: Libraries, Algorithms, and Applications	57
Gateway Routing Selection Schemes for Post-Disaster Recovery in Mobile AdHoc Networks	54	Interactive Media with Next-Gen Technologies and Their Usability Evaluation	21	Mathematical Meditations	35	Practical Machine Learning	24
Generalized Kernel Equating with Applications in R	67	Internet of Things and Big Data Analytics for a Green Environment	21	Mathematical Theory of Fuzzy Sets	35	Predictive Analytics and Generative AI for Data-Driven Marketing Strategies	24
General Quantum Variational Calculus	33	Intermediate Poker Mathematics	33	Mathematics for Engineers	35	Primer on Radiation Oncology Physics	44
Generative AI and Cyberbullying	54	Intimate Animation	21	Maturity Business Models for Manufacturing in the Digital Age	22	Principles and Applications of Vector Network Analyzer Calibration Techniques	58
Generative AI and Digital Forensics	54	Introduction to AI Safety, Ethics, and Society	21	Measure and Integral	35	Principles of Multimedia	24
Generative AI in Higher Education: Guiding Principles for Teaching and Learning	19	Introduction to Applied Spatial Econometrics	67	Measure Theory and Fine Properties of Functions, Revised Edition	36	Principles of Multimedia	24
Geocomputation with Python	67	Introduction to Classifier Performance Analysis with R	21	Medical Knowledge Paradigms for Enabling the Digital Health Ecosystem	56	Privacy in Vehicular Networks	58
Geocomputation with R	67	Introduction to Differential and Difference Equations Through Modeling	33	Microeconomics with R	68	Probability, Statistics, and Reliability for Engineers and Scientists	36
Geometry and Topology in Music	33	Introduction to Enumerative and Analytic Combinatorics	33	Micro Plastics	5	Project Management for Research and Development	58
Get Into Game Dev	19	Introduction to Financial Mathematics	34	Modeling and Simulation of Everyday Things, 2e	43	Prompt Engineering	58
Good Clinical Practices in Pharmaceuticals	4	Introduction to Fluorescence	42	Modeling Spatio-Temporal Data	68	Proofs and Logical Arguments Supporting the Foundational Laws of Physics	44
		Introduction to Functional Nanomaterials	42	Modern Computational Methods for Fractional Differential Equations	36	Protecting Location Privacy in the Era of Big Data	24

Proton Therapy Physics	44	Smart Buildings and Cities with Remote Sensing and GIS	25	The Object-Oriented Approach to Problem Solving and Machine Learning with Python	27
Psychology of Agile	58	Soft Computing Applications for Advancements in Power Systems	61	Theory of Stochastic Integrals	38
Public Key Cryptosystems	58	Software Vulnerability Discovery Process: Concepts and Applications	61	The Pocket Mentor for Video Game UX UI	27
Python Experiments in Physics and Astronomy	44	Solid State Chemistry	6	The Poetry of Physics	45
Q		Statistical Inference via Data Science	69	The Quantum Physics of Atomic Frequency Standards	45
Quantitative Social Science Research in Practice	59	Statistical Mechanics of Liquids and Solutions	45	The Rise of Intelligent Machines	27
Quantum Computing	59	Statistical Mechanics of Liquids and Solutions	45	The Rise of Machines	63
Quantum Computing Strategy	24	Statistical Outliers and Related Topics	70	The Rise of the Roguelite	28
R		Story Structure and Development	26	The Secret World of Flexagons	38
Radical Reporting	59	Storytelling for Spatial Computing and Mixed Reality	26	The Security Dimensions of the Syrian Civil War	63
Radioactivity	44	Strategic Employer Branding for IT Companies	61	The Use of Information and Communication Technologies (ICT) in the Management of the Innovative and Smart City	63
Radioactivity	44	Student Solutions Manual for Gallian's Contemporary Abstract Algebra	37	Today is a Great Day!	63
Radioactivity - Two-Volume Set	45	Supervised Learning	70	U	
Random Patterns and Structures in Spatial Data	69	Sustainable Green Synthesised Nano-Dimensional Materials for Energy and Environmental Applications	6	Understanding Bose-Einstein Condensation, Superfluidity, and High-Temperature Superconductivity	46
Ransomware Analysis	59	Sustainable Materials Processing and Manufacturing	61	Understanding Project Practices and Processes	64
Ransomware Evolution	59	Swarm Intelligence Applications for the Cities of the Future	26	Urban Artificial Intelligence	28
Recent Advances in Activated Carbon	5	Swarm Optimization for Biomedical Applications	70	Urban Artificial Intelligence	28
Recent Advances in Computing Sciences	59	Synthesis and Applications of Carbohydrates, Lipids, and Steroids	6	Using Blockchain Technology in Healthcare Settings	28
Recent Advances in Deep Learning Applications	25	Synthetic Organic Chemistry and the Nobel Prize, Volume 3	6	V	
Recent Improvements in the Theory of Chaotic Attractors	36	Systems Biology and Machine Learning Methods in Reproductive Health	26	Variational-Hemivariational Inequalities with Applications	38
Reimagining Literacy in the Age of AI	25	T		Viral Oncology	7
Remote Sensing Image Processing Algorithms for Detecting Air Turbulence Patterns	60	Teaching and Learning Mathematics Online	37	W	
Research Tendencies and Prospect Domains for AI Development and Implementation	25	Teaching Video Game Design Fundamentals	26	Web Application PenTesting	64
RNA: Computational Methods for Structure, Kinetics, and Rational Design: Volume One	25	Team Intelligence	62	Web Hacking Arsenal and Ethical Hacking Set	64
Rock • Paper • Pixels	60	Technological Innovations & Applications in Industry 4.0	62	White Space Is Not Your Enemy	28
Room Temperature Photon Detectors	45	Technology-Based Teaching and Learning in Pakistani English Language Classrooms	62	World Design for 2D Action-Adventures	28
Running a Successful Live Service Game	25	The Animation Smears Book	26	Z	
S		The Art of Cyber Defense	62	Zero to Hero	64
Safeguarding the Future	60	The Art of Data Science	62		
Scaling Up with R and Apache Arrow	60	The CISO Playbook	62		
Scattering of Waves	37	The Closing of the Auditor's Mind?	63		
Scientific Data Analysis with R	69	The Effect	70		
Secure Health	60	The Four Corners of Mathematics	37		
Securing the Digital Realm	60	The Fundamentals of Tabletop Miniatures Game Design	27		
Securing the Digital World	61	The Gardener of Governance	63		
Security Issues in Communication Devices, Networks and Computing Models	61	The History of Correlation	70		
Seminal Ideas and Controversies in Statistics	69	The Improved Residual Power Series Method for Boundary Value Problems	37		
Set Theory	37	The Iron Triangle of Energy	6		
Skew-Normal Model Theories and Their Applications	69	The Military Metaverse	27		
		The Naked Android	27		

A

Adams	67
Agarwal	48
Aghili	56
Ahmed	59
Aievoli	60
Ajanović	10
Ajibesin, Vajjhalā	9
Ali	62
Alos, Lorite	34
Altshuler	48
Ameta	6
Anand, Bhatt, Alhazmi	61
Anandan, Akila, Pal	49
Andreatta, Amiot, Yust	33
Andreu	62
André	37
Annan	9
Anusuya, Ezema	42
Arangala	32
Arbogast, Bona	32
Arif, Jaffar, Geman, Abbasi	60
Asare	64
Attard	46
Avender	26
AWOTUNDE, Muduli, BRAHMA	50
Ayyub, McCuen	36

B

Baddi, Almaiah, Almomani, Maleh	62
Badizadegan	17
Baloch	64
Banik, Das	3
Bas	58
Başar, Hazarika	36
Beardwood	18
Beckmann-Wells, Wells	17
Bell, Bernhard	29
Ben Dhaou, Spagnuolo, Tenhunen	55
Benford, Schamiloglu, Stephens, Swegle, Zhang	41

Berman	44
Bhardwaj	51
Bhardwaj	56
Bibri	11
Bivand, Piras	67
Bollman	33
Bona	33
Borhade, Bairagi, Nagmode, Borhade	53
Boruah, Goswami, Kumar, Loyola-González	16
Bost	64
Bourbon, Murimi	23
Breizman, Sharapov	40
Brewer	27
Bucero	63
Bunn	4
Burgun	12
Busch	15
Buyse, Saad, Verbeeck, Backer, Deltuvaite-Thomas, Molenberghs	67
Bycer	18

C

Cacuci	30
Caldwell	26
Carpenter	27
Cartledge	28
Castillo, Petronilho	29
Chaki, Wozniak	14
Chakrabarty	70
Chaudhary, Basu Mallik, Mukherjee, Kar	52
Cheok, Edirisinghe, Shrestha	63
Ching, Mothi	48
Chow	3
Chun	17
Chun	18
Chun	17
Clerc	19
Clote	25
Crane, Keane, Richardson	60
Croissant	68
Cuevas, Rodríguez	20

D

D'Angelo	6
Dalkir	54
Das	54
Das	54
Dasgupta, Sen	23
Dawar, Khan	37
Daya J. L., Jasmine, Kose	15
Deb, Sahu	61
Debaillie, Ferrari, Belot, Brunier, Gaquiere, Bussan, Steikūnienė	56
Debnath, Srivastava, Torres, Cho	35
DeBonis	29
Deguy	9
DeHart, Abas, Mora, Gibbons Pyles	25
Denney-Phelps	23
Desai, Chavda, Vijayvargiya, Janapati	56
Deshpande, Estrela, Khan	55
Devi Vairamani, Nayyar	58
Dhole, Bairagi	23
Dix	10
DM, Murthy	65
Domański	11
Domenech	43
Donalds, Osei-Bryson	59
Dorman, Graser, Nowosad, Lovelace	67
Dubey, Chhabra, Hung, Ghugar	15
Dufournier	32
Dunham, Johnson, McComb, Elrod	51
Dutta, Gupta, Kashyap, Gehlot, Karmakar, Bhattacharya	53

E

Ekins	3
Erendor	17
Erkmen, Erendor	18
Evans	17

F

Faid, Nawawi, Saadon	40
Faraway	68
Farhaoui, Bhushan, Sindhawani, Anand, Imoize, Verma	21
Fathimal, Kumar, Loret, Lakshmi, T. I.	8
Faul	8
Fawkes, Burden	27

Ferreira	68
Ford	44
Ford, Hutchinson	27
Fortney, Smail	31
Fowler, Chaundy	52
Fox	31
Fox, Burks	33
Frees	66

G

Gajdzik, Jaciow, Wolniak, Wolny	22
Gallagher, Pérez-García, Piasecki	31
Gallian	31
Gallian	37
Georgiev, Zennir	33
Glaser, Wong	19
Glyptis	50
González-Acuña	39
Gosavi, Bhutkar, Banubakode, Eilu	21
Gour, Singh	40
Gow, Ding	66
Gray	62
Gross-Golacka, Szkudlarek	61
Grover, Dhanaraj, Balusamy, Rathinam	55
Gupta	39
Gupta	4
Gustafson	17
Gürbüz	35

H

Hagen, Golombisky	28
Hammad, Ali, El-Affendi, Maleh, Abd El-Latif	60
Hasselbalch	20
Hastings	34
Hendrycks	21
Hoch	43
Holland	12
Hooda, Kiran, Gill, Srivastava, Yousif	8
Houlahan	44
Howard, II, Beyers	37
Huntington-Klein	70
Husain, Faisal, Sadia, Ahmed, Shukla, Kaleem	13

I.			
Illingworth	45	Kozhevnikov	40
Inoue, Lopez, Hossain, Ahad	47	Kroyer	23
Iqbal, Kudapa	43	Kshetri, Pandey, Ahmed	50
Ishwaran	69	Kulkarni, Stephan, S, Al-Turjman, Perumal	48
Ismay, Kim, Valdivia	69	Kumar, Nixon	2
		Kumar, Parashar, Kumar	7
		Kumar, Ramakrishna, Makkena, Ghinea	61
		Kumar, Saxena, Dhoble, Swart	42
		Kumar, Sharma, Nehra	2
J.		L.	
J. O'Regan	63	Laguna, Marklund	31
Jafari, Tajadodi, Gasimov	36	Lahby	16
Jain	47	Lall	22
Jain, Verma, Singh Raman, Kumari, Singh	2	Lanza, Lahmadi, François	59
James	59	Lawrence	35
James, Ascoli, Choubey	55	Lee	15
Jameson	42	Lenz, Enslin	63
Jamieson, Bettiol, Schleife	39	Leonard	2
Jangid, Sharma	5	Levin	32
Jin, Li, Luo, Li	54	Levin	65
Johnston	42	León	38
Julian, Slebodnick, Julian	4	Little	66
Jung	66	Liu, Zhang, Zhang	2
		Lovelace, Nowosad, Muenchow	67
K.		Lozi, Efremova, Abdelouahab, El Assad	34
K, Choudhury, Rodriguez, Wise, T	24	Lozi, Efremova, Pluháček	36
K. Sahoo	4	Lupetti, Zaga, Cila, Šabanović, Jung	15
Kabus, Piersiala, Dziadkiewicz	63		
Kaganovskiy	65	M.	
Kamaraj, Thirumurugan, Dhanabalan, Verma, Shajahan	6	Ma, Wang, Ni, Liu	58
Khan	14	Madkour	3
Khan, Saba	53	Magnaghi, Veglianti	23
Khanna	42	Mahalle, Ingle	53
Khera, Prasad, Kwanoran	57	Mahato, Narang, Kumar	5
Kissoon	57	Mahiddin, Sarkar	54
Kitchin	41	Maleh	64
Kjellander	45	Mallach	52
Kjellander	45	Mallik, Zhao, Jana, Jayagopal, Si, Mathivanan	70
Klostermeier, Rudolph	39	Malviya, Karakuş, Roy	16
K Nartey	19	Mamak	16
Komolafe, Monkam, Komolafe, Wang	22	Manjunatha	41
Kondratenko, Shevchenko	25		
Kostuk	41		
		Mano Domingos, José Sousa	26
		Marcella, Moore, Parisi	53
		Marcella, Moore, Parisi	54
		Marchisio, Shafique	16
		Marghany	60
		Mariprasath, Cheepati, Rivera	57
		Marquez	55
		Maré	29
		Masoom Ali, Imon, Ali, Yousof	70
		Mathew, Kuhail, Hadid, Farooq	27
		Mathews, Tang	42
		Meher	29
		Mellal	49
		Mesmar	14
		Mickens	34
		Miller	6
		Min, Septya Kusuma, Chandra Sharma	5
		Mitchell	51
		Mitchell, Cowley	21
		Mityushev, Kycia, Kycia, Rylko	39
		Mityushev, Kycia, Nawalaniec, Rylko	34
		Mohan, Munoth, Sharma	25
		Mondal, Biswas	20
		Montero, Mariné, Seguí	35
		Moore, Readman	6
		Morgan	26
		Muhlert	57
		Murugan, Periasamy, Abirami	8
		Murugan, Singh	52
		N.	
		Nag	6
		Nahhas	68
		Nau	30
		Neuman	9
		Nozari	62
		Nyamawe, Mjahidi, Nnko, Diwani, Minja, Malyango	24
		O.	
		Obimakinde, Obimakinde, Obimakinde, Akinbolade	3
		Ojanperä	48
		Onyekpe, Palade, Wani	25
		Ouaissa, Ouaisa	57
		Ouaissa, Ouaisa, Boulouard, Kumar, Sharma, Kaushik	49
		Ouaissa, Ouaisa, Lamaazi, Slimani, Khan, Sundaravadivazhagan	56
		P.	
		Paganetti, Ph.D.	44
		Pallant	13
		Parada	11
		Parekh	24
		Parekh	24
		Patel, Indurkha	27
		Penninck, Butler	22
		Penninck, Butler	22
		Perego, Ellis	43
		Petrache	40
		Petrovic	35
		Pflug	55
		Poonkuntran, Dhanaraj, AanjanKumar, Sathyamoorthy	13
		R.	
		R. Schwob, Duan, Cantoni, Flores-Lopez, G. Walker	66
		Raghuwanshi, Borkar, Jhaveri, Raut	57
		Rahman, Abdulla, Hossain	69
		Raj, Gayathri, Kathrine	49
		Raj, Sundaravadivazhagan, Raja, Alani	52
		Rangel, Guimarães, Teixeira	47
		Reddy, Doss, Bhatia Khan, Alqhatani	17
		Rehani, Gupta, Jain	8
		Reitano	32
		Reynoso Hernández, Pulido Gaytan	58
		Rezapour	34
		Rhyne	48
		Rindo	18
		Roberts	18
		Robinson	15
		Rogalski, Martyniuk, Hu	45
		Rogel-Salazar	14
		Rohif	41
		Roth	43
		Rowen, Vishne	30
		Roy	49
		Roy	37

Roy, Sain, Ram Kumar, Chanda, Emilia Balas, Mekhilef	21	Sourek	11	Whig, Sharma, Aneja, Elngar, Silva	11
Ruffino	36	Spans	13	Wiberg, Gonzalez, von Davier	67
S		Speight	4	Wiescher	44
S, Kadry, Prasanth, Dhanaraj	9	Spencer, Smeeton, Sprent	65	Wiescher	44
S, Kadry, TK, Kumar	11	Spiridigliozzi	5	Wiescher	45
Sabnis	5	Stevens	53	Wingate	58
Saiko	43	Stewart, Tall	30	Wu	35
Sandham	26	Stoica	69	Y	
Sapra, Tanwar, Sapra	51	Stroman	40	Yan, Mahmood, Sheng	24
Saravanamurugan, Li, Pandey, Suh	3	Sun	14	Ye, Zhu, Qi, Luo	69
Saw	21	Sundaravadivazhagan, S, Raj, Kumari	49	Yellowlees, Stephenson	65
Saxena, Agarwal, Bhat	33	T		Yigitcanlar	28
Schmidlechner	10	Takeuchi	39	Yigitcanlar	28
Schwartz	51	Tamo-Larrieux, Guitton, Mayer	9	Yndurain	24
Seaton	29	Tang	60	Yuvraj, Naushad, Jowaheer	66
Seebacher, Legat	12	Tharaniya, Jayalalitha, Raj, Sundaravadivazhagan	30	Z	
Selvarajan, Mohammad, Reddy, Balachandran	50	Tiwari, Kumar Tyagi	50	Zaydi, Khourdifi, Nassereddine, Zhang	47
Selvi, Kumar, Prasad, Hajare, Rishi	22	Tiwari, Kumar Tyagi	47	Zhang, Zinoviev	68
Sengupta, Narad, Gupta, Modi	26	Tiwari, Kumar Tyagi, Nagaraj	59	Zhou	16
Seth, S. Satputaley, A. Rehman, R. Bhende	62	Tiwari, Tiwari, Banik	3	Zhou, Cao, Sun, Li	18
Sethi, Sahoo, Tosh, Kumar Jayasingh, Kumar Bhoi	13	Totten, Sandoval	28	Zhu, Chien Jen	61
Sethiya, Nandini Chauhan, Shah, Singh Chauhan	5	Tran, He	12	Ziemann	41
Shan, Yuan, Ni, Liu, Dutkiewicz	19	Trivedi, Nallakaruppan, Balusamy, Sivakumar	10	Ziesche, Yampolskiy	13
Shandilya, Sujay, Gupta	47	Tucker	4	Zimmer, Powell, Velásquez	66
Sharma, Nath, Sheikh, Singh	59	Tunaru, Quaye	32	Zorich	70
Sharma, Thirumalaisamy, Balusamy, Chilamkurti	10	U			
Shekokar, Shinde, Ambarkar, Michalas, Mangla, Thomas	12	Unhelkar	58		
Sherman, Elran, Schwartz	38	Untwal, Kose	52		
Shi, Solé	31	Upadhyaya	56		
Shrawankar, Mishra	12	V			
Singh	10	Vanier, Tomescu	45		
Singh, Angurala	20	Vasiuk	25		
Singh, Chakraborty, Kour, Kaur	30	Ventures	19		
Sinha Roy, Hussain, Reddy, Gupta	19	Vero	50		
Skubis, Kołodziejczyk	20	W			
Sofonea, Migorski	38	WAHID, Kumar Donta	8		
Sofronov, Szajowski	68	Wang	20		
Sood, Murari, Gupta, Kumar	61	Wang, Li, Liang, Tian, Guo, Chen	14		
Soufiene, Mallik, Alabdulatif	28	Waters	37		
		West, Heeringa, Berglund	65		



VISIT ROUTLEDGE.COM

Visit www.routledge.com today to view the full range of **books** and **journals** in each subject area.

View the **latest titles**, exclusive **author interviews** and **news**, and sign up to our subject specific **eUpdates**, to receive details of new publications and special offers by email.

Look Inside Routledge Books

Did you know that many of our books now have 'Look Inside' functionality that allows you to browse online content before making any purchasing decisions?

For more information visit www.routledge.com.



