

CRC Rights Guide

AUTUMN/WINTER 2026



CRC Press
Taylor & Francis Group

In focus this season

Our AI-focused titles from *Reconceiving AI* to *Ethical AI in School Education* and *Medical Applications of Artificial Intelligence* arrive when practitioners, policymakers, and educators need guidance that integrates technical depth with ethical awareness, as governments worldwide implement AI regulations and major research funders prioritize responsible AI development.

This season, titles such as *Inclusive Engineering Education*, *Empowering Women in STEM*, and *How To Build Accessible Games* respond to the recognition that diversity and accessibility are not merely social goods but technical necessities, providing the practical methodologies and evidence-based strategies that institutions need to meet funding agency requirements and create innovations that serve broader populations.

Our comprehensive coverage spans critical growth sectors and foundational disciplines that are shaping the future of technology and society. In game design and interactive media, our titles provide rigorous, pedagogically sound content authored by award-winning designers and industry veterans that bridges creative practice with technical implementation while pioneering accessibility as a core design principle.

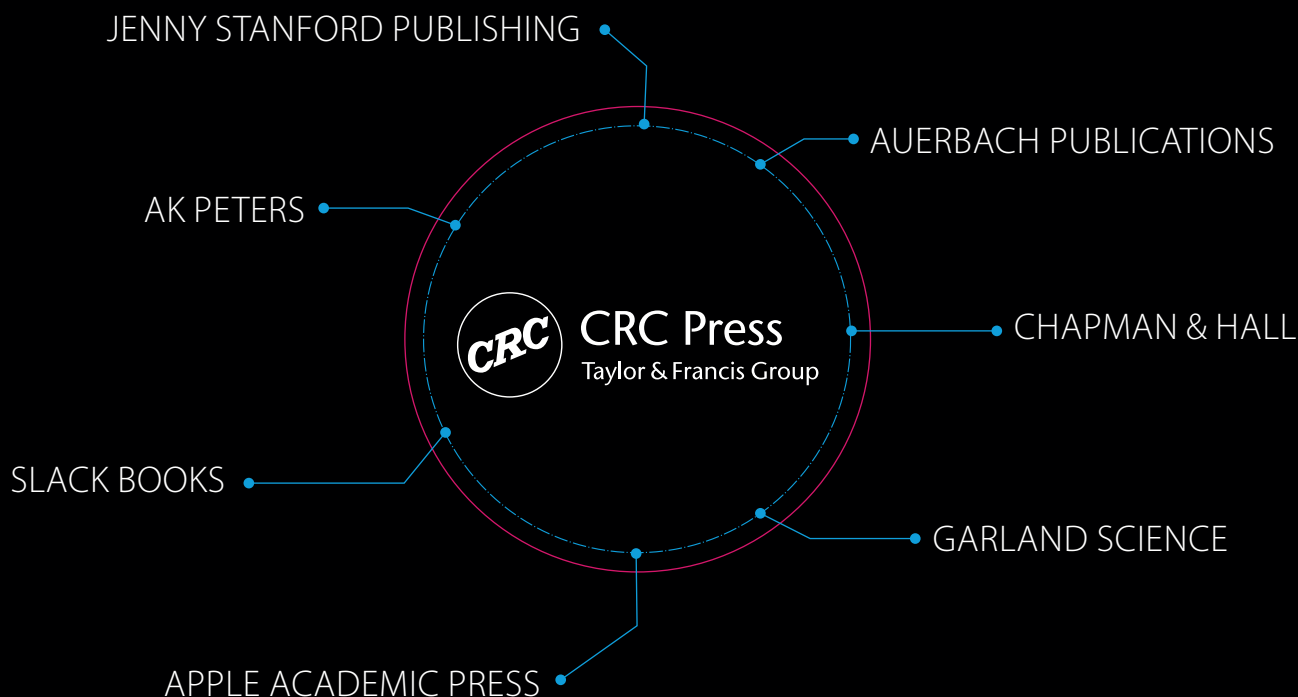
The marine and naval engineering titles address pressing challenges in renewable energy transition and ocean exploration, serving an offshore wind industry projected to require \$1 trillion in investment by 2040.

Our materials science and advanced engineering content recognizes that breakthroughs in renewable energy, transportation, and countless other domains depend fundamentally on understanding failure mechanisms, optimizing manufacturing processes, and designing for sustainability providing the technical depth required for innovation while remaining accessible to professionals entering these fields.

From safety culture and organizational behavior to science communication and conservation ethics, these titles demonstrate Taylor & Francis's unique ability to bridge STEM expertise with humanities and social science perspectives.



Nora Konopka
Editorial Director for STEM



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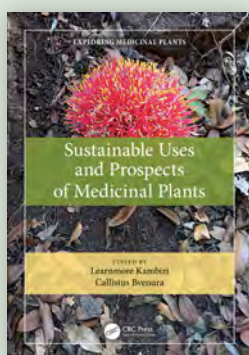
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S E R I E S

Exploring Medicinal Plants

Medicinal plants render a rich source of bioactive compounds used in drug formulation and development; they play a key role in traditional or indigenous health systems. As the demand for herbal medicines increases worldwide, supply is declining as most of the harvest is derived from naturally growing vegetation. Considering global interests and covering several important aspects associated with medicinal plants, the Exploring Medicinal Plants series comprises volumes valuable to academia, practitioners, and researchers interested in medicinal plants. Topics provide information on a range of subjects including diversity, conservation, propagation, cultivation, physiology, molecular biology, growth response under extreme environment, handling, storage, bioactive compounds, secondary metabolites, extraction, therapeutics, mode of action, and healthcare practices.

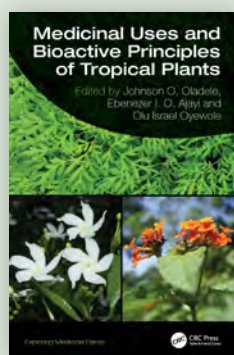
Led by Azamal Husen, PhD, this series is directed to a broad range of researchers and professionals consisting of topical books exploring information related to medicinal plants. It includes edited volumes, references, and textbooks available for individual print and electronic purchases.



Sustainable Uses and Prospects of Medicinal Plants

Edited by Learnmore Kambizi and Callistus Bvenura

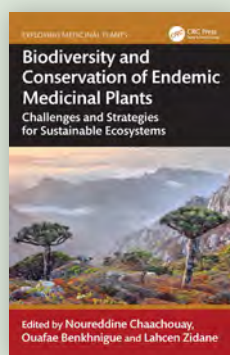
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Medicinal Uses and Bioactive Principles of Tropical Plants

Edited by Johnson O. Oladele, Ebenezer I. O. Ajayi, and Olu Israel Oyewole

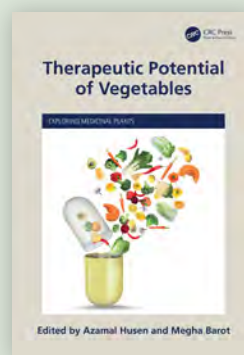
9781032669557



Biodiversity and Conservation of Endemic Medicinal Plants Challenges and Strategies for Sustainable Ecosystems

Edited by Nouredine Chaachouay, Ouafae Benkhiguel and Lahcen Zidane

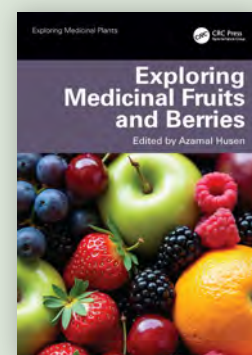
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Therapeutic Potential of Vegetables

Edited by Azamal Husen, and Megha Barot

9781032993010



Exploring Medicinal Fruits and Berries

Edited by Azamal Husen

9781041163848



Discover more titles in this series, please visit

www.routledge.com/Exploring-Medicinal-Plants/book-series/CRCEMP

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Game Design & Animation

Apple Academic Press

Jenny Stanford Publishing



EMPOWERING WOMEN IN STEM

EMPOWERING WOMEN IN STEM

Building a Culture of Resilience

Edited by
Sanya Mathura



Sanya Mathura

Series Editor of CRC Press's *Empowering Women in STEM*, discusses how the series inspires the next generation and supports those already in the field.

As the first person and first female in Trinidad & Tobago and the Caribbean to attain the ICML MLE (International Council for Machinery Lubrication Machinery Lubrication Engineer) certification, and the first woman globally to achieve the ICML VPR & VIM badges, what specific challenges did you face being “the only one”? How did those experiences influence your decision to create this book and series?

Being “the only one” was never foreign to me. Growing up, I knew I wanted to be an engineer, but it was nearly impossible to find someone who looked like me, someone I could identify with. I wanted to change that for other girls and show them that if I could do it, so could they. That was the driving force behind pursuing those certifications: no female had achieved them before, and I wanted other women to see that barriers can be broken. That same impulse became the foundation for this book.

What motivated you to develop this book and series? Was there a specific moment or pattern of experiences that made you realize these stories needed to be shared?

In my early years in engineering, I often felt isolated and wondered whether the challenges I faced were simply part of the landscape, but I had no women in the field to ask. That is the premise behind this series: shared experiences that unite women across STEM globally and build a community of mutual support. Contributors from across the globe share their stories. Importantly, this is not only a women’s story. It includes the male perspective too, because the only way we truly overcome challenges and thrive is by working together.

Empowering Women in STEM

Building a Culture of Resilience

Edited by Sanya Mathura

September 2026

ISBN: 9781041196204

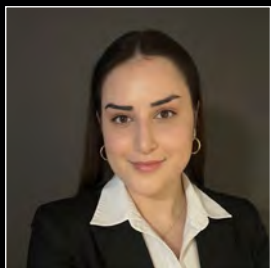
272 Pages

Subject: General Engineering Education

www.routledge.com/9781041196204

Chapter 4, “The Fraudulence Paradox: Beyond Self – The Systemic Roots of Imposter Syndrome,” suggests that imposter syndrome has structural causes, not just psychological ones. Can you explain what you mean by the systemic roots of imposter syndrome, and how does this reframing change the way women in STEM should approach these feelings?

Selen Demir from Türkiye brings a rigorous scientific lens to this topic. She traces imposter syndrome back to its 1970s clinical origins, noting that the term was first coined to describe high-achieving women who consistently could not internalize their own success. Her key insight is that imposter syndrome is not a cover story for failure; it is a multifaceted cognitive pattern most common in capable individuals. It is the friction we feel when our potential grows faster than our self-acceptance.



Selen Demir
Software Engineer & Founder of
The Growth Studio by Selen,
Istanbul, Türkiye

Crucially, Selen examines the systemic dimension: environments built around a singular cultural norm can signal to those outside it that they do not belong, making the “fear of being found out” a rational response to structural bias, not merely a personal weakness. She introduces five archetypes of inadequacy—the Perfectionist, Expert, Soloist, Natural Genius, and Superhuman—to help readers identify their specific patterns. Her prescription is both personal and structural: rewrite your internal rules of success and dismantle the environmental conditions that trigger these feelings in the first place.

Chapter 12, “When Silence Becomes Complicity,” addresses hostile work environments in male-dominated technical fields. What practical strategies does this chapter offer for women who find themselves in situations where speaking up could jeopardize their careers?

Genevieve Cheung, a civil engineer from Barbados, writes from hard-won personal experience navigating hostile environments.



Genevieve Cheung
Founder of Atticus Consulting,
Christ Church, Barbados.

Her core argument is that self-censorship does not only protect; it also limits. It narrows relationships, flattens collaboration, and quietly closes off opportunities.

Her practical counsel is direct: document everything. When she eventually took action—engaging legal counsel, issuing a formal cease-and-desist, and notifying relevant HR contacts—her priority was establishing a record so the behavior could no longer be dismissed or ignored. She argues that escalation should be understood not as troublemaking but as record-keeping in environments that rely on silence. She also challenges the myth that professionalism means endurance. True professionalism requires accountability and the willingness to address harm even when it is inconvenient.

Chapter 30, “The Algorithmic Glass Ceiling: How Objectivity Becomes Architecture,” explores how AI can reinforce or break gender bias. Can you explain what you mean by “objectivity becomes architecture,” and what role should women leaders play in ensuring emerging technologies don’t perpetuate existing biases?

Priya Iyer, PhD, works at the intersection of large-scale AI infrastructure and systems engineering at Microsoft in the US.



Priya Iyer, PhD
Principal Product Manager,
Microsoft, Seattle, Washington.

Her chapter argues that the most powerful site of gender bias in AI is not the application layer; it is the infrastructure beneath it: decisions about compute allocation, data access, and who gets resources to scale their ideas. These choices are framed as technical and financial, made in rooms that often look remarkably homogeneous. That is how objectivity

becomes architecture—definitions of merit and efficiency become encoded at the design level, rendering exclusion statistical and difficult to contest.

Her proposed remedy is engineering-minded: treat equity as a reliability problem. Just as reliability engineers instrument systems to detect drift before failure, organizations should continuously audit for disparate impact, embed fairness as a design specification, and ensure that women are present not just in the workforce broadly but at the infrastructure level where foundational decisions are made. When infrastructure changes, everything above it changes too.

Section 15, “How to Better Engage Male Allies,” includes Chapter 34, “Beyond the Perception of Gender”—how does this fit into a series about empowering women in STEM?

Professor Sanjay Bahadoorsingh from Trinidad and Tobago makes a point that is both simple and powerful:



Professor Sanjay Bahadoorsingh HBM
Professor of Power Systems and Sustainable Energy, The University of the West Indies St Augustine, Trinidad and Tobago

we need good engineers, regardless of gender. Equipment does not recognize the gender of its operator, only their technical competence. Drawing on over two decades in the field and the classroom, he demonstrates that where structured opportunity, corrective guidance, and practice are equally provided, gender becomes irrelevant to performance. His chapter is a timely reminder that empowerment is not a solo endeavor. For women in STEM to fully thrive, male allies must be active, informed, and willing to examine the assumptions embedded in everyday professional culture.



Sanya Mathura

Sanya-Mathura is the Founder and CEO of Strategic Reliability Solutions Ltd, based in Trinidad & Tobago. She works with global affiliates in the areas of Reliability and Asset Management. She has a BSc in Electrical & Computer Engineering and an MSc in Engineering Asset Management from the University of the West Indies. Sanya has worked in the lubrication industry for over a decade. She is the first person (and first female) in her country and the Caribbean to attain an ICML MLE (International Council for Machinery Lubrication Machinery Engineer) certification, as well as the first female in the world to achieve the ICML VPR & VIM badges. Presently, Sanya is also the only female instructor globally for the Mobius Field Lubrication Category I course and sits on multiple technical boards.

Empowering Women in STEM

Series Editor: **Sanya Mathura**, Strategic Reliability Solutions Ltd.

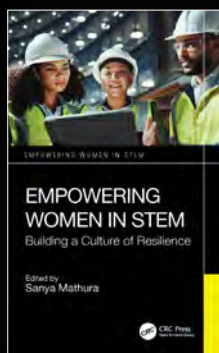


This new book series aims to encourage more women into STEM-related fields and will provide a source of inspiration for those wanting to join or remain in these fields. In the last decade, it has been extremely difficult to get documented information on experiences women have faced in male-dominated fields. Typically, this information has been frowned upon by colleagues and women have been subjected to believing that they are “not strong enough” for these types of industries. As a result, there is a higher number of women leaving STEM fields after the first few years.

This series will serve to encourage more women to embrace their unique abilities and find comfort in knowing that other women have endured similar situations and not only survived but thrived. Too often, the media selectively

chooses the highlights of these careers but not the struggles behind them. Essentially, these struggles are what gets women prepared to achieve amazing things. However, if no one is enlightened about their journey, then other women in similar situations may feel that giving up is the easiest solution.

The series will also serve as an avenue for more male involvement in becoming allies and informing others about ways to bridge these gaps. Quite often, male colleagues are not aware of the struggles women face or that there are ways to help in these situations. Imposter syndrome is very prevalent in this area for men, but it is only when both men and women work together that they can balance the scales.



Empowering Women in STEM

Building a Culture of Resilience

9781041196204



Empowering Women in STEM

Pioneering Paths to Shape the Future

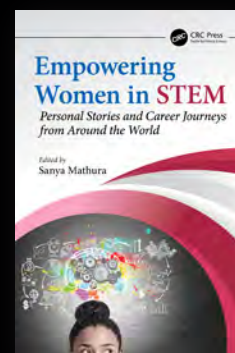
9781041006398



Empowering Women in STEM

Working Together to Inspire the Future

9781032678948



Empowering Women in STEM

Personal Stories and Career Journeys from Around the World

9781032372648

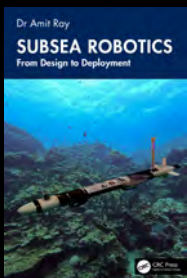


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Amit Ray

Amit Ray is a Naval Architect serving in the Indian Navy as Commodore (Naval Design), heading the Submarine Design Group. With over 25 years of experience in warship and submarine design, construction, repairs, and trials, his awards include the IIT Kharagpur Director's Gold Medal for M.Tech (2006) and the Royal Institution of Naval Architects' Medal of Distinction (2010). He holds an M.Phil. in Defence & Strategic Studies and a Ph.D. in Submarine Hydrodynamics from IIT Delhi (2010). A Fellow of the Institution of Naval Architects of India, he has authored over 30 technical papers and is involved in autonomous underwater systems development. His books include *Tracing the Undersea Dragon* (2021) and *Underwater Robotics: Engineering and Applications* (2025).



Subsea Robotics

From Design to Deployment

Amit Ray

October 2026

ISBN: 9781041233817

296 Pages • 87 B/W Illustrations

Subject: Robotics

www.routledge.com/9781041233817

• Amit Ray

the author of *Subsea Robotics*, talks about silent revolution beneath the waves.

The oceans cover more than 70% of the Earth's surface, boasting abyssal plains, deep trenches and high mid-ocean ridges. Most of this underwater expanse remains unseen and unmonitored. This isn't for lack of curiosity. The underwater environment is simply brutal: crushing pressures, corrosive saltwater and near-total darkness. Worse, the electromagnetic signals such as GPS, Wi-Fi and radio that we rely on above the surface fade to nothing within metres of entering the water. For centuries, these conditions kept the deep ocean effectively off-limits. A new generation of uncrewed systems is changing that. This book is about those machines, the engineering behind them and what they make possible.

Beyond the Tether: Two Paths, One Revolution

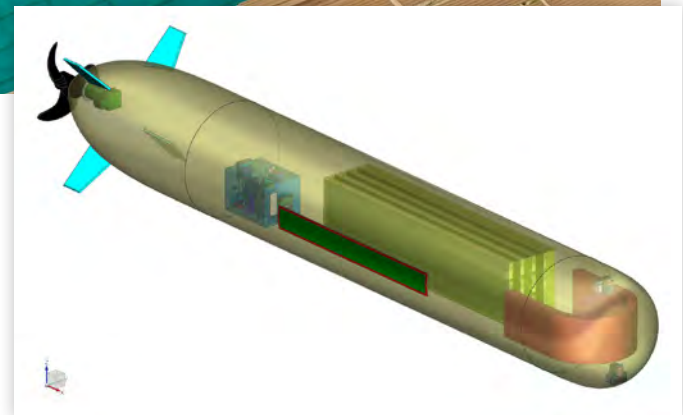
Subsea robotics has evolved along two distinct lines. The first is the Remotely Operated Vehicle, or ROV, a tethered robot connected to a surface vessel by an umbilical cable that carries power and data. The offshore oil and gas industry essentially built this category, deploying work-class ROVs for tasks no human diver could safely perform: deep wellhead maintenance, subsea construction and emergency intervention. The tether is both the ROV's strength and its limitation. It enables real-time control and high-bandwidth video feed, but it also constrains range and adds operational complexity, requiring constant monitoring by a mother ship.

The second path is the Autonomous Underwater Vehicle, or AUV, which is untethered, battery-powered and designed to execute missions without a human in the loop. AUVs began appearing in serious operational roles in the late 1980s, and advances in miniaturised electronics, materials science and machine learning have since made them far more capable and more affordable. They now serve across scientific research, offshore industry and defence for mapping seafloor geology, inspecting pipelines and conducting reconnaissance in waters where sending a crewed vessel would be impractical or unsafe.

Engineering the Impossible

Designing and building a subsea robot is an exercise in managing trade-offs. Every component must survive hydrostatic pressure that increases by one atmosphere for every ten metres of depth, in a medium that corrodes most metals and degrades most seals over time. The design process requires disciplined systems engineering, working from mission requirements down to individual component specifications, and verifying that the final system actually meets what was asked of it.

Power and endurance remain the most stubborn constraints. An AUV on a multi-day survey mission carries everything it needs onboard—there is no mother ship, no charging pad, no mid-mission resupply. Battery technology has



improved steadily, but the physics are unforgiving and the technology continues to evolve, driven by Electric Vehicle applications on land. One elegant solution is the underwater glider, which forgoes a conventional thruster entirely, instead adjusting its buoyancy to move through the water column in a slow, saw-tooth profile. Gliders consume remarkably little energy and have crossed ocean basins on a single charge. Researchers are exploring energy harvesting from wave motion, thermal gradients between water layers and even microbial fuel cells that draw energy from organic matter in seabed sediments.

Communication and Navigation: The Hard Problems

Radio waves are useless underwater. Sound is the only practical medium for communication at any meaningful range, and working with acoustic signals is nothing like working with radio. Sound travels at around 1,500 metres per second through seawater—faster than in air—but it bounces off the surface, the seabed and thermal layers in ways that create multipath interference and unpredictable latency. Getting reliable acoustic communication to work requires careful attention to transducer placement, signal processing and software protocols purpose-built for the underwater channel.

Navigation is similarly demanding. Without GPS, an AUV must work out where it is by dead reckoning, continuously integrating its velocity and heading to estimate position. In practice this means fusing data from inertial measurement units, Doppler velocity logs and, where available, acoustic positioning systems. Well-engineered systems can hold drift errors below 0.02% of distance travelled, which sounds impressive until you consider a vehicle covering dozens of kilometres before coming up to the surface for a GPS fix. Improving long-range navigation accuracy, without adding prohibitive cost or complexity, remains one of the most active research areas in this field.

From Discovery to Defence

The range of applications is broad. Scientific AUVs like REMUS, Hugin and Sentry have mapped hydrothermal vent fields and ancient shipwrecks, producing data that would have been

unimaginable with ship-mounted instruments alone. In the offshore energy sector, AUVs and ROVs inspect the foundations of wind turbines and the submarine cables that carry the world's internet traffic. This work is repetitive, demanding and increasingly automated. In defence, AUVs are now becoming standard tools for military oceanography, mine countermeasures and anti-submarine warfare, operating as mobile, covert sensor nodes.

The Road Ahead

The next frontier is coordination. A single AUV, however capable, has limited coverage in the vast oceans. Swarms of vehicles that share data and divide search areas can achieve what no single platform can, compensating for individual failures. This is the central idea behind the Internet of Underwater Things: a networked architecture linking distributed sensors and vehicles to processing systems ashore, enabling persistent, wide-area awareness of the underwater environment. However, the concept is highly challenging to implement due to the technical constraints of communication underwater and the administrative constraints of secure satellite communication.

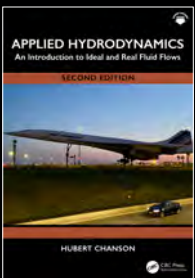
For a maritime nation like India, building robust capability in the underwater domain is as much a strategic question as a technological one. Coordinated efforts are required across agencies, laboratories, universities and industry to indigenously develop platforms in large numbers and enhance expertise to operate and develop them.

The ocean has not become less hostile. But the tools we are building to work within it are becoming genuinely remarkable. Breakthroughs in artificial intelligence, soft-robotic actuators, novel energy systems and quantum navigation are opening possibilities that seemed remote even a decade ago. The deep ocean is not, as it once seemed, beyond reach. It is simply waiting.



Hubert Chanson

Hubert Chanson is Professor of Civil Engineering at the University of Queensland since 1990, following six years in industry. His expertise lies in environmental fluid mechanics and hydraulic engineering, encompassing theoretical fundamentals and physical and numerical modeling. He leads a research group of 5-10 researchers focusing on flows around hydraulic structures, two-phase free-surface flows, and turbulence in open channel flows through computation, experiments, and field work. He has published over 1,300 peer-reviewed publications, including two dozen books. He serves on editorial boards of several journals, including as Senior Editor of *Environmental Fluid Mechanics*. Since 1994, he has organized numerous international conferences, chairing the 34th IAHR World Congress (2011) and 22nd Australasian Fluid Mechanics Conference (2020) in Brisbane.



Applied Hydrodynamics

An Introduction to Ideal and Real Fluid Flows, 2nd Edition

Hubert Chanson

October 2026

ISBN: 9781041161394

440 Pages

Subject: Engineering

www.routledge.com/9781041161394

• Hubert Chanson

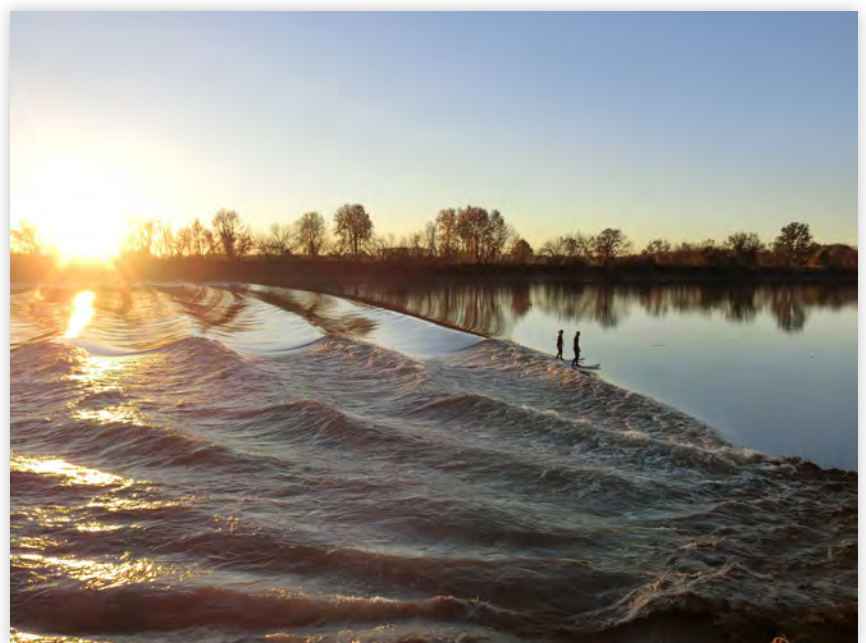
the author of *Applied Hydrodynamics*, explains why fundamental fluid dynamics knowledge matters more than ever.

Applied Hydrodynamics: An Introduction to Ideal and Real Fluid Flows – 2nd Edition was prepared primarily for two groups of readers: senior undergraduate and postgraduate students in Civil, Environmental, Hydraulic and Mechanical Engineering, and professional engineers using commercial fluid mechanics modelling software, especially computational fluid dynamics (CFD) models. For students, the book supports intermediate courses in fluid dynamics. For professional engineers, it provides the high-level hydrodynamic foundations required for CFD software and computational modelling.

From Theory to Real-World Application

The book offers a solid understanding of real-life flows encountered in nature and industry. The topics are broad, directly relevant to society and accompanied by illustrations and beautiful photographs of flows and their consequences. It provides a comprehensive presentation of both ideal and real fluid flows in a single volume, making it a highly practical resource.

The material includes biographical notes on historical figures in fluid mechanics and hydrodynamics who contributed to theories, formulas and approaches. Understanding the historical development of fluid dynamics is essential to grasp the current state-of-the-art and identify knowledge gaps.





From Kitchen Sinks to Supersonic Aircraft

Fluid flow motion applications range from everyday scenarios, such as the kitchen sink and exhaust fans, to engineering systems like air conditioning, fluid transport in pipes and canals, energy generation and environmental processes. When driving a car, the airflow around the vehicle body induces drag, which increases with the square of the car's speed and contributes to excess fuel consumption.

The eclectic nature of the applications is novel and unique in the literature. The range is exceptional, from nature-based environmental flows to aerodynamics of airships and fast-flying aircraft, as well as industrial flows in large pipelines. Real-life applications include tidal bores in estuaries, whirlpool fountains, the Concorde supersonic aircraft, hydraulic jump energy dissipators and paragliders.

Another innovative feature is the detailed level of theoretical treatments, complemented by a wide range of relevant techniques, from mathematical questions and graphical solutions (e.g. flow net) to computational methods. The book includes coverage of a wide range of real-life applications, many worked examples and exercises with supportive software available, and modern examples using new techniques and equipment. The theoretical fundamentals are complemented by detailed appendices including relevant mathematical aids, and several real-world practical applications are developed and proposed as assignments.

Why This Matters for the Future

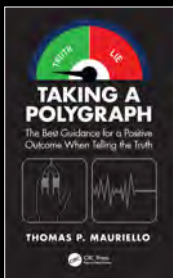
Fluid dynamics, hydrodynamics and fluid mechanics are historically rich and highly developed disciplines. Their advancement depends on sound theoretical research, numerical simulations and experimental techniques. With the rise of computational tools and AI databases, a deep knowledge of the fundamentals of fluid dynamics is critical to professional engineers and their industries. Society and industry require expert engineers and scientists with robust expertise: there is no place for AI 'hallucinations' (AI errors). High-level technical expertise and critical thinking both are key requirements for the future.

A fascinating feature of the book is the in-depth coverage of both ideal and real fluid flows in a single volume. Another standout characteristic is the inclusion of real-life examples and modern applications. Detailed discussions of various topics, including knowledge gaps, further enhance the expert knowledge provided. The book is intended for a broad audience, including students, academics and professional engineers, and should be available in professional and university libraries that value their collections.



Thomas P. Mauriello

Thomas P. Mauriello is an educator, author, forensic consultant, and public speaker. He retired from federal service in 2012 after 30 years with the U.S. Department of Defense, serving as a Special Agent, investigator, senior polygraph examiner, and Chief of Polygraph. Previously, he was a police officer and criminal investigator for the State of Maryland. For 48 years, he taught criminal justice and forensic sciences at the University of Maryland, creating and managing the CCJS Crime Laboratory. He is founder and CEO of ForensIQ, Inc., providing forensic investigation, training, and consultation services. His publications include *Criminal Investigation Handbook*, *The Dollhouse Murders*, and *Introduction to Criminalistics*. He hosts the Forensicweek.com Show podcast and holds a Master of Forensic Sciences from George Washington University and a Bachelor of Arts in Criminology from Suffolk University.



Taking a Polygraph

The Best Guidance for a Positive Outcome When Telling the Truth

Thomas P. Mauriello

November 2026

ISBN: 9781041310334

160 Pages • 30 B/W Illustrations

Subject: Forensic Science

www.routledge.com/9781041310334

• Thomas P. Mauriello

the author of *Taking a Polygraph*, discusses preparing for polygraph testing and the importance of truth-telling.

Thomas, you're an expert in polygraph testing and have, combined, conducted or overseen over 20,000 examinations in the course of your career. So, if there's anyone qualified to write a book on this topic, it's you! What inspired you to write it, and what's your goal with its publication?

What inspired me to write the book is two-fold. First, I saw way too many polygraph subjects failing their first polygraph while being tested for employment or to obtain a security clearance. Over 50% were not passing on their first time. For those subjects that returned for a second, third, or sometimes even their fourth time, a majority of them eventually passed their test without providing any new information to the polygraph examiner. Secondly, over the 48 years that I have been teaching at the University of Maryland, I found a number of students who came to me in tears saying that they had failed their polygraph test for a job they were seeking, and that the polygraph examiner told them they were withholding information on one of the polygraph questions. It is my opinion that the main reason for these subjects not being successful is that the subject was not prepared for the test, didn't know what to expect, and was troubled by the numerous misconceptions associated with polygraph testing.

My goal for this publication is to ensure that a subject taking a polygraph—be it for employment, security clearance, a suspect to a crime, or whatever other reason they were asked to take a polygraph—that they would be prepared, understand the process, have all the polygraph misconceptions eliminated, and thus be successful, if and when they intended to be truthful.

I think a lot of people don't understand polygraph testing. Or, they've seen it being done in a TV show and, understandably, they have all these misconceptions about it. Can you talk a little bit about what polygraph testing is—and isn't? And how and when is it used, both within the U.S. and outside it?

Certainly. The polygraph is a physiological measurement tool. Not a mind-reader. Not a truth machine. And not a scientifically validated lie detector. It's used in the U.S. and internationally as a credibility-assessment instrument, especially in law-enforcement and security contexts: as a tool used in criminal investigations, as well as to adjudicate a person's background for obtaining employment or a security clearance.



Figure 8.3 NCCA logo and title.
The government usage of polygraph testing, for background investigations and clearance, is widespread and commonplace



The polygraph measures stress factors associated with the activation of the subject's sympathetic nervous system when responding to a polygraph question. If the subject perceives a threat from one of the polygraph questions they are responding to, their sympathetic nervous system will react. That response can be for a number of reasons, and not necessarily a lie. It is up to the polygraph examiner to determine what is causing the subject's reaction.

Taking a Polygraph: The Best Guidance for a Positive Outcome When Telling the Truth is just that—a means to an end for success throughout the polygraph process.

You make a point to focus on people wanting to be truth-tellers in taking a polygraph, and not trying to “beat it.” I mean, is that even “a thing?” What would be your core recommendation for anyone seeking to be truthful and undergoing a polygraph test?

The publication doesn't even discuss “beating it,” because today's polygraph examiners are well trained in the use of countermeasures. The focus of the book is for the “truthful” subject and getting them through the test successfully.

My recommendation for anyone seeking to be truthful during the test is first, read my book. Secondly, make sure you are 100% comfortable with your responses to every question during the polygraph test. The questions are reviewed during the pre-test period. If anything comes to mind, even if it is beyond the scope of the question being asked, share it with the polygraph examiner beforehand. You must clear your mind of anything that could interfere with a 100% confident answer to each question.

If there's one thing you would want readers to take away from the book, what would it be?

I think the answer to your question can be summed up simply by a quote of mine that begins the Preface of the publication. It states: “It is better to tell the truth and face judgement, than to lie and face the consequences.”

In every polygraph interview, there comes a moment when a person must choose between honesty and deception. Telling the truth may invite judgement, discomfort, or scrutiny, but those reactions are temporary. A lie, however, carries consequences that endure, compound, and follow a person far beyond the room where it was spoken. This book begins at that crossroads—the place where integrity becomes action—and where understanding the power of truth is the first step toward a successful polygraph experience.

Taking a Polygraph: The Best Guidance for a Positive Outcome When Telling the Truth will help take you there.

Interview conducted by Mark Listewnik, Senior Editor for Forensic Science Books at CRC Press.



Charles “Chuck” Randolph

Charles “Chuck” Randolph is a leader in protective intelligence, executive protection, and enterprise risk with over 30 years of experience.



Jonathan Wackrow

Jonathan Wackrow is a CNN Law Enforcement Analyst and former U.S. Secret Service Special Agent with over 25 years in national security and executive protection.



Fred Burton

Fred Burton is a former special agent, New York Times best-selling author, and recognized terrorism and protective intelligence expert advising multiple security companies.

• Chuck Randolph, Jonathan Wackrow, and Fred Burton

the authors of *The Protector's Edge*, discuss executive protection and intelligence-driven leadership in modern security.

In a world where visibility has become a vulnerability has become vulnerability and information moves faster than judgment, a new kind of leadership is required—one that connects intelligence to decision-making and preparation to action. *The Protector's Edge: Leadership Through Strategy and Action* offers a timely and essential framework for leaders navigating an increasingly complex threat landscape.

This is not a book about tactics. It is a book about leadership under conditions of risk, uncertainty, and consequence. Drawing from decades of experience in executive protection, intelligence, and corporate security, the work argues that protection is no longer simply a function delegated to a security team. It has become a leadership responsibility—one that demands strategic thinking, disciplined communication, and the ability to act decisively when the stakes are real.

A Changed Threat Environment

The threats facing executives, corporations, public figures, and institutions today are fundamentally different from those of even a few years ago. Many threats begin quietly, develop across multiple domains—physical, digital, reputational—and only become obvious when an organization is already behind. A leader's visibility, once an asset, can quickly become exposure. A corporate decision can trigger a personal grievance. A public narrative can evolve into a security concern. Digital information can create physical vulnerability.

This convergence of threats is one of the book's central themes. Physical security, cyber exposure, social media, disinformation, insider risk, and reputational pressure can no longer be treated as separate categories. Threats converge long before organizations do. The leadership challenge is forcing the organization to see the whole picture and act on it before events overtake them.

Speed is another defining factor. Leaders now operate inside a constant flow of information, but more information does not automatically create better judgment. In fact, it often creates noise. The ability to find the signal inside that noise—and make decisions before the environment acts on you—is what separates effective leaders from reactive ones.

The impact of a threat is no longer measured only by whether someone is physically harmed. A threat can disrupt travel, damage reputation, affect employee confidence, influence executive behaviour, create legal exposure, or force an organization into a defensive posture. The protective mindset must expand to understand the conditions that allow risk to develop: Who is exposed? What information is available? What grievance is forming? What decision points are coming? What would we do if the situation escalates?

These are leadership questions as much as security questions.



The Protector's Edge

Leadership Through Strategy and Action

**Charles Randolph, Jonathan Wackrow,
and Fred Burton**

July 2026

ISBN: 9781041136231

279 Pages • 1 B/W Illustrations

Subject: Security Management

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Leadership as Protection

At the heart of *The Protector's Edge* is a powerful assertion: leadership is the ultimate form of protection. Leadership is what turns intelligence into judgment, data into decision, and purpose into action. Intelligence by itself does not protect anyone. Data by itself does not make a decision. Purpose by itself does not create action. Leadership is what gives those things direction.

Security leadership is defined as the ability to create clarity, build trust, and drive disciplined action in the face of uncertainty. It requires more than technical expertise. It requires judgment, communication, timing, restraint, and the ability to understand second- and third-order effects. Security leadership is a specialized form of leadership because the consequences are often immediate and personal—but the principles apply more broadly.

In protection, leadership becomes visible very quickly. It shows up in planning. It shows up in how teams communicate. It shows up in how people respond when a plan breaks down. It shows up when someone has to make a decision with incomplete information and still be accountable for the outcome. The best security leaders are not just people who can manage a response. They are people who can prepare others, reduce uncertainty, and help an organization continue to function with confidence.

That confidence is critical. Protection should not simply restrict movement or limit activity. Done well, it empowers leaders and organizations to operate effectively, even in uncertain environments.

Leadership determines whether intelligence is acted upon. Many organizations receive warning signs. Not all of them recognize those signs. Fewer still act at the right time. A good security leader builds systems where information moves, where weak signals are examined, where assumptions are challenged, and where people are willing to raise concerns early. In that sense, leadership really is a form of protection. It creates the conditions that allow an organization to see, decide, and act before a situation becomes irreversible.

Bridging Strategy and Action

One of the book's core objectives is to bridge the space between strategy and action. In many organizations, those two

things become separated. Strategy lives at the top.

Action happens at the operational level. But in a real threat environment, they must be connected.

The people responsible for protection need to understand the strategic context. Senior leaders need to understand how their decisions create risk, reduce risk, or shift risk somewhere else. *The Protector's Edge* is written for people who need to make better decisions before, during, and after moments of consequence.

The book also reinforces the intelligence mindset. Intelligence is not just information collection. It is the disciplined effort to understand context, intent, indicators, vulnerabilities, and warning. The modern security leader must ask: What are we seeing? What does it mean? What could happen next? What should we do now? The goal is not simply to react better, but to anticipate better.

A Call to Preparedness

Preparation is a leadership act. Protection is not only what happens in the moment of crisis. It is what is built before the crisis—the team, the trust, the planning, the communication, the standards, and the ability to adapt. Good protective work is rarely accidental. It is the product of disciplined leadership over time.

Threats are adaptive. The people and organizations we protect are operating in a world where risk can emerge from many directions at once. The answer is not fear. The answer is better awareness, better judgment, better preparation, and better leadership.

Protection is not merely standing between a person and a threat. It is building the leadership capacity to understand risk, make decisions, and act with purpose in a world where exposure has become part of leadership itself.

***The Protector's Edge* is a book for security professionals, but it is equally a book for leaders who understand that protection, risk, and decision-making are now deeply connected. In an era defined by convergence, speed, and consequence, it offers a framework for leading with clarity, confidence, and purpose.**



Kelati Awatef

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• Kelati Awatef and Antonella Tosti

editors of *Hair and Scalp Disorders Associated with Hair Care Practices*, discuss the importance of understanding disorders related to hair care practices.



***Figure 2 (from the book):** Dandruff in a patient with a history of straightening treatment 4 months ago, note the proximal part of the hair shafts, which has regained its curly structure, while the distal part still keeps the straight structure after relaxing.



Hair and Scalp Disorders Associated with Hair Care Practices

Edited by Kelati Awatef, and Antonella Tosti

July 2026

ISBN: 9781041001911

218 Pages • 2 B/W Illustrations

Subject: Dermatology

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Hair has always occupied a unique place in human society.

Beyond its biological function, it serves as a powerful symbol of identity, culture, beauty and social belonging. Across civilisations, hairstyles and grooming rituals have reflected personal expression and cultural heritage, while in modern society they have become increasingly influenced by fashion styles, social media and the global beauty industry.

In an era where evolving beauty standards, social trends and the rapid expansion of the cosmetic industry are driving an increasing pursuit of aesthetic enhancement, disorders related to hair care practices have become more prevalent than ever. These conditions are not confined to individuals with tightly curled or kinky hair but affect all hair types. The widespread use of cosmetic products, chemical treatments, heat styling, hair extensions and traction-inducing hairstyles can compromise hair and scalp health. Traction alopecia, acquired trichorrhexis nodosa, **weathering, heat-induced hair shaft damage, chemical burns, allergic contact dermatitis and scalp dysbiosis are just a few examples of grooming-related disorders**. Importantly, these conditions are not merely cosmetic concerns; they may lead to permanent scarring, chronic inflammation, psychological distress and a significant impairment in quality of life.

Hair morphology varies considerably across ethnic groups, with differences in curl pattern, shaft geometry, mechanical properties and susceptibility to injury. Consequently, **identical cosmetic procedures may produce entirely different outcomes depending on hair type**. Understanding these variations is essential for delivering personalised and evidence-based guidance and preventive strategies.

Our book will help fill a gap in the global approach to patient care by **enabling hair professionals to better understand patients' needs and adapt prescriptions** not only to the hair disorders they present but also to the characteristics and quality of their hair. Such an approach may help prevent the use of products and styling practices that are harmful to both hair and scalp health. Equally important is the recognition that cultural practices and community-specific hair rituals should not be viewed solely as risk factors for hair diseases such as central centrifugal alopecia, but rather as expressions of identity deserving respect and understanding. The hair professional's role is therefore to identify safer alternatives that preserve both hair health and cultural authenticity.

This comprehensive book **serves not only as an academic resource but also as a practical guide for improving patient care**. By integrating clinical evidence, basic science, cultural awareness and preventive strategies, it empowers healthcare and hair professionals to recognise avoidable causes of hair disease, deliver personalised recommendations about prevention and treatment, and promote healthier hair practices across diverse populations.

KEY FEATURES:

- Advises on the professional management of hair and scalp disorders caused or exacerbated by hair care practices
- Features international contributors discussing all hair types
- Offers a groundbreaking resource for medical professionals at all levels



Erin Jones

Erin Jones, PhD, is a researcher, author, and dog behaviour consultant specializing in animal ethics, applied behaviour, and the dog–human relationship. Her work examines human exceptionalism, power, agency, consent, and the moral dimensions of training. She holds a PhD in Human–Animal Studies, an MSc in Anthrozoology, a BSc (Hons) in Anthropology and Psychology, and a Postgraduate Diploma in Animal Welfare. Erin is a Certified Dog Behaviour Consultant and Accredited Dog Trainer with the International Association of Animal Behavior Consultants and a Certified Professional Dog Trainer–Knowledge Assessed. She founded Merit Dog Project, directs the IAABC Foundation Journal, and is an international speaker. Her books include *Constructing Canine Consent* and *Topics in Non/Human Coexistence*. She is Canadian-based in Aotearoa New Zealand.



Beyond Behaviour

The Ethics of Dog-centred Training

Erin Jones

November 2026

ISBN: 9781032965833

472 Pages • 16 Color Illustrations

Subject: Animal Behaviour

www.routledge.com/9781032965833

Erin Jones

the author of *Beyond Behaviour*, talks about hidden ethics of living with dogs.

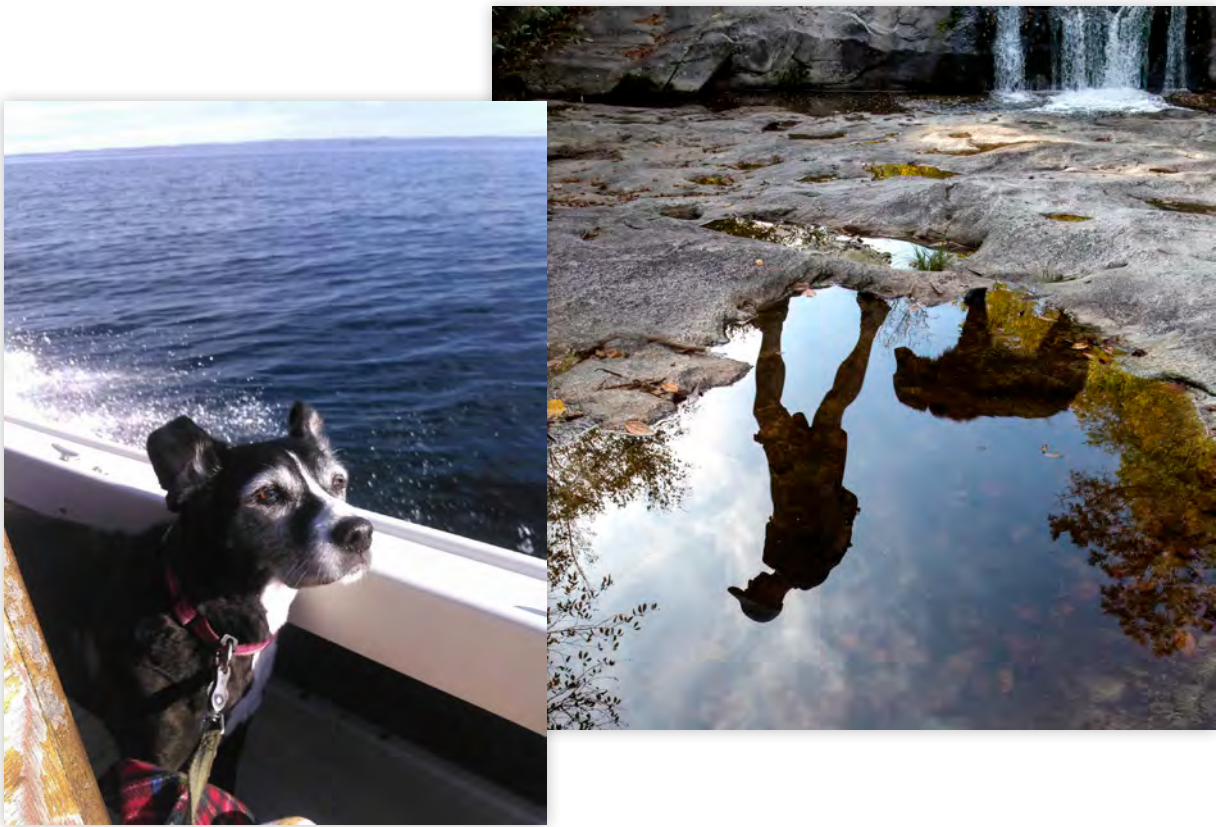
Drawing on more than two decades of behaviour consultancy, doctoral research and the development of frameworks for canine consent and agency, *Beyond Behaviour* is a book about dog training that is not, in the usual sense, about dog training at all. It's not a manual of techniques organised around how to make dogs do things, nor how to stop dogs doing things. Instead, it raises questions about what "dog training" reveals about the relationships we build with dogs, the assumptions we bring to those relationships and the ethical responsibilities that follow.

The book critically examines the methods, histories, theories and values that have shaped contemporary dog training. It considers learning science, animal ethics, emotional wellbeing, welfare, agency and the long-standing cultural ideal of the "good dog." At its heart, *Beyond Behaviour* is about rethinking training as a relational and ethical practice. It examines how we can move from seeing training as something we do to dogs to understanding it as one of the ways humans and dogs learn to live, and even thrive, together. This reframing reveals that training is never only about behaviour. It's also about the kind of relationship being created, the kind of dog being imagined and the kind of life being made possible.

Traditional training has been influenced by histories of obedience, ownership, behaviourism and the enduring ideal of the "good dog" as calm, compliant and emotionally resilient. These ideas can become so familiar that they appear neutral, even caring. Yet they shape what humans notice and what kinds of canine lives we make possible.

The book begins from a different philosophical commitment: one where dogs' behaviour is not simply evidence of training success or failure, nor merely material to be modified. It explores how behaviour is expressive, relational, contextual and morally significant. To understand behaviour is not simply to ask how we can change it, but what it makes visible and what our responsibilities become once we have recognised that. The book moves between philosophical argument, learning science, personal reflection and case-based discussion, drawing on stories from my own life with dogs as well as examples from behaviour work to show how these questions emerge in ordinary, everyday moments – and it's often in these moments that the ethical substance of the relationship becomes most visible.

The book is written with behaviour professionals very much in mind. Trainers, behaviour consultants, veterinary professionals, educators and shelter workers are often asked to interpret behaviour, design interventions and shape the trajectory of the field. Professionals have a particular responsibility to think carefully about what training is for, what it asks of dogs and what kinds of relationships it helps create. I would love to see the book make its way into classrooms and teaching programmes, especially because it sits in that important crossover space between academic theory and applied practice.



At the same time, I would like everyone who lives with dogs to read it. Not because everyone needs to become a professional trainer, but because everyone who lives with dogs is already in a teaching relationship with them. “Training” isn’t something that begins only when we pick up a treat pouch or enrol in a class. It’s woven through daily life. Learning happens in the patterns we create, the communication we notice (or ignore), the freedoms we allow, the restrictions we impose and the meanings we attach to behaviour.

That relational understanding is important because many people who live with dogs have inherited a narrow idea of what a “good” dog should be, and these expectations often sit inside relationships of genuine love. We call dogs family, companions and best friends, and no doubt many of us love them deeply. But love does not erase power, and dogs still live within structures of human decision-making.

I hope the book offers all readers a more serious and generous way of thinking about dogs. One that doesn’t reduce dogs to their behaviour but also doesn’t romanticise the relationship or pretend that safety, boundaries and human responsibility are irrelevant.

In many ways, the book is for anyone who has ever looked at a dog and thought, “There is more going on here than I was taught to see.”

I hope *Beyond Behaviour* gives people a language for the unease many of us feel about dog training, even when the methods appear kind, modern or effective. More importantly, it asks us to move ethics upstream, before the goal has already been decided. It’s not enough to ask whether a method is humane or

effective. We also need to ask why a particular behaviour became the target of an intervention, who defined it as a problem, what kind of dog is being imagined as the endpoint and whether the intervention serves the dog’s life or simply makes the dog more intelligible, manageable or acceptable within human systems.

For professionals, I hope the book strengthens the case for ethical competence as something more demanding than technical skill. Ethical behaviour professionals need to know how learning works, but they also need to know how to justify their goals, recognise the limits of their own frameworks, question inherited assumptions and attend to the dog’s perspective even when the case is complicated.

For caregivers, I hope the book makes visible how much is happening in ordinary life with dogs. Training is not confined to formal sessions; it occurs in daily negotiations over seemingly mundane interactions. These moments may appear small, but they are where the relationship is made and remade. I hope readers come away seeing their dogs not as “training projects,” but as individuals whose responses carry meaning and whose lives can be made larger or smaller by the ways humans interpret and intervene.

Ultimately, I hope *Beyond Behaviour* helps shift what counts as success. If the book has the impact I anticipate, readers won’t simply learn about different techniques—they’ll leave with different questions. And perhaps more importantly, they will begin to see those questions as central to the ethics of “being-with” dogs.



James D. Cox

James (Jim) D. Cox is Senior Director of Animal and Biological Services at Howard Hughes Medical Institute's Janelia Research Campus, leading teams supporting neuroscience research.



Bruce W. Kennedy

Bruce W. Kennedy, IACUC Administrator, has a diverse research career spanning laboratory animal science, chemistry, and regulatory compliance across California, Virginia, and Maryland institutions.

James D. Cox and Bruce W. Kennedy

the editors of *Fundamentals of Cage Wash Operations*, explain why cage wash deserves professional recognition.

Cage washing is no longer an entry-level support function in studies with animals, but rather a developed technical discipline that supports biosecurity, animal welfare and research quality. While New Approach Methodologies (NAMs) are being advanced around the world, they complement animal research rather than fully replace it. As long as animals remain part of research, cages and equipment must be cleaned, sanitized, disinfected and sterilized. The cage wash facility is where that essential work takes place—where biosecurity starts and where animal welfare, research quality and occupational safety are supported every day.

For more than 60 years, research institutions have needed reliable methods to clean cages and related experimental equipment. Cage wash staff handle dirty and sometimes hazardous cages, use acidic and alkaline chemicals to support the cleaning process, and operate machines that clean and sterilize using steam and high-temperature water. Failures in the cage wash process can lead to disease outbreaks, jeopardizing animal health, scientific studies and the quality of research data. Cage wash personnel are, in fact, biosecurity technicians and specialists—and they need to be recognized as such.

Historically, cage washing has been viewed as an entry-level job. Now it is the beginning of a career in laboratory animal science, providing a strong foundation for those who move into animal husbandry, study technical support and eventually management. At the same time, not everyone wants to move into animal care roles, and with only one typical path for advancement, career options for cage wash professionals have often been limited. The complexity of the cage wash environment today creates opportunities for institutions to build meaningful career advancement within these roles, particularly as technology and automation continue to shape cage washing processes.

Training in the cage wash environment is another area where institutions have opportunities to develop. Many organizations have dedicated training teams focused on teaching staff and researchers how to work directly with animals. Cage wash training, on the other hand, is frequently left to supervisors to provide through on-the-job training. Because cage wash is a critical area for biosecurity—with requirements based in quality assurance—on-the-job training needs to be supported by structured adult-learning plans, regardless of whether staff members plan to move into animal care roles or want to build a career in cage wash.

One essential component of training is understanding the full operation of washing and sterilizing machines. Currently, training often focuses on simple tasks like loading and unloading items and starting a cycle. That training should be expanded to include the different stages of each cycle, the purpose of each stage, what happens during each stage and the risks if a stage is skipped, interrupted or not completed properly. Staff should also understand the alarms that may occur, the possible causes of those alarms and the appropriate steps



Fundamentals of Cage Wash Operations

At the intersection of technology, husbandry, safety, and compliance, accomplishing sanitation in research animal science

Edited by James D. Cox, and Bruce W. Kennedy

August 2026

ISBN: 9780367028534

442 Pages • 114 Color Illustrations

Subject: Biotechnology

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to acknowledge, escalate or potentially clear them. Safety must remain central to this troubleshooting, because these machines involve electrical, thermal and chemical hazards.

Another training opportunity is helping staff understand the types and requirements of equipment being washed and sterilized. Some equipment can tolerate the temperatures and chemical conditions encountered during washing and sterilization, whilst others cannot. Cage wash staff benefit from understanding basic material science, including which materials are best suited for typical processing steps, how new materials should be evaluated and how appropriate cleanliness, sanitation and disinfection can be achieved to reduce biosecurity risks.

Providing an increased focus on training is only one part of professionalizing this area as a career. Institutions must also be able to demonstrate that cage wash tasks were completed. Typically, record-keeping focuses on periodic thermal validation and biological indicator testing. Records are important in other aspects including machine maintenance and repairs, washing chemical concentrations and machine alarms. Although these data may seem minor in the moment, trends can help identify issues before they affect animal health, research outcomes and machine downtime. But do we review, track and assess the trends these records show, or do we treat retaining such records as a task to review retrospectively only when a problem occurs?

Besides prioritizing record-keeping, additional attention on disaster preparedness and business continuity for cage wash operations is warranted. Most institutions have emergency and disaster preparedness plans for animal care, veterinary support and research continuity, but rarely do these plans extend to cage wash. If cage wash is truly the hub of the research enterprise, we should also include plans for cleaning and sterilizing cages when steam, water or power utilities are interrupted; when a washer or sterilizer breaks down; or when a pandemic reduces available staff, even though animal care operations do not stop.

Over the last decade, these observations have shaped our presentations at AALAS and LAMA meetings, starting at the Baltimore AALAS meeting in 2013 with our first talk titled "Cagewash – It's Just Too Complex to Be Entry Level". Since then, we have collaborated with more than 40 colleagues worldwide to develop the first comprehensive reference dedicated solely to animal cage cleaning, *Fundamentals of Cage Wash Operations*.

With this book, we hope institutions around the world will use it to give structure to this essential, highly technical and underrecognized career path.

Undoubtedly, the animal research field will continue to evolve, especially as NAMs become an integrated part of the research enterprise. Yet, until science provides sufficient knowledge and viable alternatives, animals will play a critical component of scientific discovery. It follows that cage wash operations will remain central to animal welfare and research outcomes. Combined with continuing advances in automation and technology, these realities make it clear that cage wash should be recognized and supported as a professional discipline.





Sanjeev K. Nayak

Sanjeev K. Nayak is a quantum technology leader with Ph.D. in Physics, MBA, leading UConn's Quantum Consortium and founding Access Quantum startup.



R. Esteban Goetz

R. Esteban Goetz is a theoretical atomic physicist at UConn specializing in ultrafast quantum dynamics and quantum control theory with laser systems.



Ashok Gurung

Ashok Gurung is a computational physicist and postdoctoral researcher at Washington State University specializing in quantum theory and energy storage materials.

• Sanjeev K. Nayak, R. Esteban Goetz and Ashok Gurunghe

the authors of *Quantum Matters*,
explain why the science that powers
your phone should matter to you.

Quantum science is often made to feel too difficult, too mathematical or too far away from everyday life. Many people think it belongs only in advanced classrooms or research labs. But the truth is that quantum science is already around us. It is in our phones, GPS systems, medical tools, lasers, computer chips and secure digital communication.

We wrote *Quantum Matters – From Field to Life* to make quantum ideas feel more reachable. Our goal was not just to explain the science, but to show why it matters. Ideas like superposition, photons, atomic clocks and quantum computing may sound abstract at first, but they are connected to real technologies that people use every day.

Most importantly, we wanted to spark curiosity. The ideas in this book come from scientists who work in the field and understand both the beauty and the difficulty of the subject. We tried to break these ideas down in a way that a general reader, a student or someone new to quantum science can follow. We hope readers come away feeling that quantum science is not something beyond them, but something exciting they can begin to understand and explore.

From Theory to Reality: What Makes Quantum Science Exciting Now

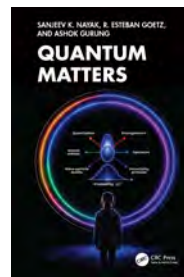
What makes quantum science so exciting today is that it is moving from theory and laboratory experiments into real-world use.

Quantum computing is one of the biggest developments. Researchers are constantly achieving milestones in improving qubits, reducing errors and building better error-correction methods. In the future, quantum computers will be used to solve problems in materials science, climate modelling, logistics and drug discovery that are too complex for today's computers.

Quantum sensing and timing are also advancing quickly. Optical atomic clocks and quantum sensors can measure time, motion, gravity and magnetic fields with extraordinary precision. These tools support GPS-free navigation, environmental monitoring, medical diagnostics and more accurate scientific measurements.

Another exciting area is the link between quantum computing and artificial intelligence. Quantum methods can help AI solve difficult optimization, pattern recognition and machine learning problems, with possible benefits for healthcare, energy and industry.

Quantum communication and quantum cryptography are also important. They could help transmit information more securely and protect sensitive data in a future where powerful quantum computers may challenge today's encryption.



Quantum Matters

From Field to Life

**Sanjeev K. Nayak, R. Esteban Goetz,
and Ashok Gurung**

November 2026

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Subject: Quantum Physics

www.routledge.com/9781041250272

Together, these developments show that quantum science is becoming a practical technology that could shape healthcare, energy, transportation, communication, cybersecurity and everyday life.

The Hard Part: Turning Promise into Practice

One of the biggest challenges in quantum technology is turning strong scientific progress into reliable, scalable and affordable tools. We now understand quantum systems much better than before but making them work consistently in the real world is still difficult.

Quantum systems are extremely delicate. The same features that make them powerful, such as superposition and entanglement, are also easily disturbed by noise and the environment. This leads to decoherence and errors, especially in quantum computers. Progress is being made in qubit design and error correction, but building large-scale, fault-tolerant systems remains a major challenge. Many devices still need ultra-low temperatures, vacuum chambers, complex lasers and specialized equipment. To become widely useful, they must become smaller, cheaper and more robust.

Cost and access are also concerns, since only a limited number of institutions currently have advanced quantum hardware. Finally, education and workforce development is essential. We need more scientists, engineers, software developers, educators, policymakers and informed citizens who understand both the promise and the limits of quantum technology.

Two Chapters That Show Why This Matters

Our book touches many important fields, including healthcare, energy, computing, communication, navigation and cybersecurity. Since the impact of quantum technologies is so broad, it is difficult to rank one area above another. However, we would especially highlight the chapters on Quantum Intelligence and Quantum Cryptography. Together, these chapters show both the promise and the responsibility of the quantum age.

The chapter on Quantum Intelligence explains how quantum

computing and artificial intelligence can help each other. AI is already good at learning from large amounts of data, finding patterns and making decisions. But today's AI systems need a lot of computing power, time and energy. In the future, quantum computing may help speed up some of these difficult tasks. At the same time, AI can help make quantum computers more accurate, stable and efficient. Together, these two fields could help solve major problems in science, medicine, energy and technology.

The chapter on Quantum Cryptography focuses on data security, something that affects all of us every day. Banking transactions, medical records, online shopping, government systems and personal communications all rely on encryption to keep information safe. As quantum computers become more powerful, some of today's security methods may no longer provide the protection we take for granted. Fortunately, quantum science also offers solutions. Quantum cryptography, quantum key distribution and post-quantum cryptography are being developed to help secure sensitive information and prepare our digital world for the quantum future.

Not Distant, Not Mysterious, Not Only for Scientists

If there is one message, we want readers to take away from this book, it is that quantum science is not distant, mysterious or only for scientists. The ideas that once seemed purely theoretical have become connected to communication, computing, navigation, healthcare, energy and security. Quantum science is not only about faster computers; it is about new ways to solve problems, discover medicines, protect data, improve navigation and understand nature more deeply.

Most importantly, we hope readers leave with curiosity, confidence and a clearer sense of where quantum technology stands today and where it may go next. Our goal is to make these ideas accessible to everyone, whether they are students, professionals, policymakers or simply curious readers. The quantum age is not coming—it is already here. And it matters to all of us.



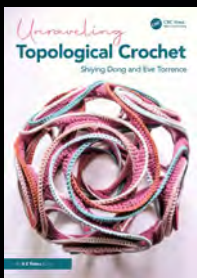
Shiying Dong

Shiying Dong is a theoretical physicist and mathematical artist specializing in topological crochet, with a PhD from UIUC and exhibited internationally.



Eve Torrence

Eve Torrence is professor emeritus at Randolph-Macon College, specializing in mathematical arts through knitting, crochet, origami, and sculpture with a PhD from UVA.



Unraveling Topological Crochet

Shiying Dong, and Eve Torrence

August 2026

ISBN: 9781032830490

280 Pages • 6 B/W Illustrations • 633 Color Illustrations

Subject: Topology

www.routledge.com/9781032830490

Shiying Dong and Eve Torrence

the authors of *Unraveling Topological Crochet*, talk about the art of making mathematics tangible through crochet.

This richly illustrated and eminently readable book explains how to make beautiful abstract sculptures using only yarn and a crochet hook. These sculptures also happen to illustrate concepts in an area of mathematics called topology.

Topology is sometimes called rubber sheet geometry, since a shape can be stretched and twisted without changing how it is classified (as long as it is not torn). Measurements, like length and angle measure, are fundamental to geometry, but don't matter when studying the topology of a shape. Topology is used in computer science, data analysis, biology, chemistry, and physics and is fundamental to understanding the space-time structure of the universe. Yet many concepts are easy to understand with a three-dimensional model in one's hands.

Beginning with simple examples, like clothing and household items, the reader is gently carried into this fascinating area of mathematics. Concepts are introduced and mastered as the reader works through over 60 projects. A collection of pieces is created that demonstrate a variety of topological properties.

Why Crochet?

Crochet is perfect for making models of topological surfaces since one can build the material in any direction and increase and decrease the width of the fabric as desired. Knitting or sewing is not as flexible for making models of surfaces. This is why crochet is the preferred medium for making amigurumi—small stuffed toys—since any shape can be easily achieved.

Shiying Dong has invented a method for crocheting models of topological surfaces that anyone can learn. She has teamed up with Eve Torrence to write this accessible guide to her methods. This book can be enjoyed on many levels. It is both a cosy crafting book and a gradual introduction to a tactile area of mathematics that can be enjoyed by young and old alike.

Who Will Love This Book?

The authors hope that their book will appeal equally to mathematicians and crocheters. Mathematicians will learn how this medium can be used to make models that explain complex concepts. Crocheters who want to make intriguing forms will learn how mathematics can be used to expand the repertoire of what can be made.

No prior crochet or mathematical knowledge is needed. Crochet is very easy to pick up. The mathematics is developed slowly throughout the book. Both the crochet skills and mathematical concepts build on the previous examples. Every mathematical concept is illustrated with a three-dimensional model the readers can make for themselves and then study. Step-by-step instructions with accompanying photographs make it easy to learn how to make the models.



A Tool for Teaching

The book offers tremendous educational potential. Both authors believe that hands-on learning is best. Models are great for illustrating topological concepts and when you make the model yourself, you understand the structure completely.

Topology is often only taught to advanced undergraduates or graduate students studying mathematics. This is because the way it is taught is often very abstract. Since it is difficult to draw flat pictures that illustrate three-dimensional models, it can be hard to learn about topological surfaces from a traditional textbook.

But anyone can learn a lot about topology by making the models in this book. There is so much mathematics embedded in these models. At the same time, they make very beautiful abstract sculptures that can be enjoyed on many levels.

Learning about the three-dimensional models in this book would be a terrific foundation in topology for an undergraduate and great preparation for a graduate topology course. Having a solid understanding of these very concrete examples would make it easier to understand the more abstract concepts one would study in an advanced topology course. Both authors wish they had had such a foundation before tackling their first topology course.

At the same time, these models can be used to explain topology to a child. In one chapter, the book explores tori—doughnut shapes—with lines crocheted on the surface. These lines form a special class of mathematical knots called torus knots. These knots can be difficult to understand without a three-dimensional model. But with the crocheted examples, a child can examine and understand the concept of a torus knot.

And because they are made from yarn, even very small children can contemplate and study unusual forms by playing with these models. One author's two-year-old granddaughter was born around the same time the idea for this book was conceived, so she has had many interesting examples to play with as she has matured into a toddler.

Mathematics Through Making

If readers take just one thing from this book, the authors hope it would be this: mathematics is everywhere and making—drawing, sewing, knitting, crochet, cooking, woodworking—are all great ways to learn about mathematics. Geometry and topology are particularly well suited to hands-on learning. We should give students of all ages more opportunities to make mathematics. When one makes a mathematical model, every aspect of a concept becomes clearer and you can possess the knowledge in a way that is unmatched by other teaching methods.

The book's designs range from accessible introductory pieces to sophisticated challenges. The final model, Lawson's Klein bottle, has many ideas subtly contained in the form and introduces some challenging crochet techniques. Other favourites include the models of Boy's surface, the truncated polyhedra models, the saddle polyhedra, and Dyck's surface.

Whether you love crochet or mathematics, or have never had success in either, you can learn to make intriguing models that will make you want to learn more about both.



Aide Aracely Maldonado-Macías

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Juan Luis Hernández Arellano

Dr. Juan Luis Hernández Arellano is a Distinguished Professor at UACJ and CEO of ErgoTech Mexico, specializing in ergonomics and occupational health.

• Aide Aracely Maldonado-Macías, Yordán Rodríguez and Juan Luis Hernández Arellan

the editors of *Latin America as a Living Laboratory for Human Factors and Ergonomics*, discuss why local context is becoming a global asset.

Human Factors and Ergonomics has grown from its industrial origins into a holistic discipline that now touches almost every interaction between people, technology, and environments. Yet for decades, the published conversation has been led by the Global North, while the specific sociotechnical realities of developing nations have remained underrepresented in scientific literature. Latin America, meanwhile, has been experiencing enormous growth in HFE (Human Factors and Ergonomics). This volume — the first authoritative synthesis devoted entirely to the region — consolidates research, applications, and developments carried out by and for Latin America, and organizes 24 chapters into 5 thematic sections that together map the breadth of the field. What was missing was never the work itself, but a place to bring it together and read it as a coherent whole.

Its premise is consequential: the region is not merely a place to apply imported theories, but a living laboratory for generating context-sensitive solutions. Cultural diversity, sharp socioeconomic contrasts, and fast-moving emerging sectors create conditions rarely found together anywhere else — and the answers they demand often prove useful far beyond Latin America. The same diversity that complicates the work is what makes its lessons portable: methods proven across such varied settings tend to hold up elsewhere, too, which is precisely why the region's perspective matters to the discipline.

“Latin America is not merely a place to apply existing theories. It is a living laboratory for generating new ones.”

1 • Healthcare and medical contexts

The first section applies HFE where human well-being is most directly at stake. It addresses patient safety, clinical performance, and medical training environments — from system dynamics models that help manage nursing workload in intensive care units to approaches that reduce risk in maxillofacial surgery training. In high-demand clinical settings, where staff are stretched and error is costly, decisions about workload, equipment, and process carry outsized consequences, and the section shows how ergonomics can make care both safer and more sustainable for the people who deliver it. In a region where health systems often operate under tight resource constraints, efficiency is not a luxury but a condition for quality care.

2 • Accessibility in technology and education

The second section turns to human-centered design in technology and education, with a strong emphasis on accessibility and inclusion for diverse populations. Here, readers will find work on the user experience of older adults with fintech and digital banking applications, and on the usability of learning



Human Factors and Ergonomics in Latin American Countries

Developments, Applications and Approaches
Edited by Aide Aracely Maldonado-Macías, Yordán Rodríguez, and Juan Luis Hernández Arellano

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resources for students with visual disabilities. As digital systems become unavoidable in everyday life, designing them so that age, ability, or unfamiliarity do not become barriers is not a courtesy but a requirement — and one that the region, with its wide gaps in access, cannot afford to overlook. Inclusion here is treated as a design problem rather than an afterthought, and the chapters offer concrete ways to make fintech, public services, and learning materials usable by everyone.

3 • Physical ergonomics and workplace health

The third section addresses the physical demands of work, musculoskeletal risk, and the interventions that reduce them. It balances emerging solutions — such as passive exoskeletons and the analysis of mechanical demands in sectors like distribution centers — with the fundamentals that make ergonomics work for real bodies: regional hand anthropometry and grip-strength data, the effects of prolonged standing, and how practitioners choose among postural assessment methods. Advanced tools are only as good as the human measurements beneath them, and a region adopting them quickly needs those fundamentals more, not less. Reliable local data on the bodies that do the work is, in many ways, the quiet backbone of the whole discipline.

4 • Psychosocial and organizational ergonomics

The fourth section examines the psychosocial side of modern work — mental workload, leadership, and organizational climate. It engages with very contemporary problems: burnout and an unhealthy, obsessive relationship with work; mental workload in demanding sectors such as higher education; and “quiet quitting” and the psychosocial risks of the post-pandemic era. It also considers how leadership and empowerment in advanced-technology environments can either protect or erode well-being, making the case that organizational design is itself an ergonomic concern. As work becomes more knowledge-intensive and more automated, the mind — not only the body — becomes a central object of ergonomic attention.

5 • Macroergonomics and policy

The final section raises the perspective to whole systems. It covers macroergonomic and policy questions — organizational systems, models for managing human error, workforce sizing, and the role of ergonomics in sustainable development. Crucially, it gives visibility to the informal economy, a vast and too-often-ignored sector, through a study of indigenous women in street vending, and closes with a comparative analysis of the laws and regulations related to HFE across Latin American countries — one of the first attempts to map the regulatory landscape of the discipline in the region, and a foundation for better public policy. By moving from individual tasks to systems and institutions, the section demonstrates how HFE can shape decisions at the national scale.

Taken together, the five sections describe a discipline that is mature, relevant, and growing. That the foreword is written by the current and immediately past Presidents of the International Ergonomics Association underlines the point: this work is recognized internationally as a genuine contribution, not a regional curiosity. The challenges it documents — technological transition, inclusion, physical and psychosocial risk, informality — are not uniquely Latin American. We hope it inspires students, equips practitioners, and informs policymakers, in the service of a more human-centered, sustainable, and inclusive future of work — wherever that work happens. If it does, the living laboratory will have begun to export not just findings, but a way of thinking — one in which the human being remains the measure of every system we design.



Michael Sulu

Michael Sulu is a Lecturer in Biochemical Engineering at UCL, specialising in inclusive education, equitable learning, and engineering pedagogy.



Helen Knowler

Helen Knowler is an Associate Professor at UCL, specialising in inclusive education, educational equity, and the legacy of eugenics.



Vivek R. Ramachandran

Vivek Ramachandran is a UCL Lecturer specialising in inclusive engineering education, ethics, sustainability, responsible innovation, and accessible technology.

• Michael Sulu, Helen Knowler and Vivek R. Ramachandran

the authors of *Inclusive Engineering Education*, on rethinking who gets to be an engineer.

This book really started with conversations among colleagues at UCL. We were looking closely at our own pedagogy and asking honest questions about how to tackle the UK Higher Education degree awarding gap. But those local conversations grew into a much bigger, global examination of engineering education, which led us to reflect on Inquiry-Based Learning as a vehicle for meaningful change.

We want to move past the idea that engineering is a neutral, technical subject. It is deeply shaped by historical and structural inequalities, but one that has tremendous potential to be a care-driven practice. The discipline is often presented as objective and values-free, when the questions engineers choose to ask, the problems they prioritise and the communities they serve are all profoundly shaped by who has historically been included in the profession and who has not.

The book supports engineering educators in designing inclusive teaching spaces that centre the voices and lived experiences of people who have traditionally not had a seat at the table. It offers something practical and hopeful—a resource that acknowledges the weight of existing structures whilst equipping colleagues to do things differently.

Exciting Shifts and Persistent Challenges

The most exciting thing right now is seeing a real shift toward making engineering education far more student-centred, particularly during the worsening climate crisis and growing civic distrust. We are witnessing a meaningful move away from practices that prioritise conformity to exclusionary norms and toward creating a genuine sense of belonging for everyone in the room.

That said, one of our biggest hurdles remains the entrenched thinking that resists reshaping these academic structures. Institutions can be slow to change, and there are colleagues who remain unconvinced that questions of inclusion and equity belong in an engineering curriculum at all.



Inclusive Engineering Education

Michael Sulu, Helen Knowler, and Vivek R. Ramachandran

February 2027

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Communicating Science in Public

Megan Shields Formato

Megan Shields Formato, PhD, is a historian and Stanford lecturer specializing in science communication and women in science.

Kevin C. Moore

Kevin C. Moore, PhD, is a Stanford lecturer specializing in writing, science communication, and propaganda studies with a literature background.

Sarah Peterson Pittock

Sarah Peterson Pittock, PhD, is Associate Director of COLLEGE at Stanford, specializing in writing, public speaking, and science communication.

Emily Polk

Emily Polk, PhD, teaches climate change communication and environmental justice at Stanford, focusing on community-led responses and social movements.

Cassie A. Wright

Cassie A. Wright, PhD, is a Stanford lecturer specializing in science communication, censorship, social media, and modern literacy.

The authors of this new book bring together decades of experience teaching and developing courses in science communication within Stanford University's Notation in Science Communication program. In recent years, the COVID-19 pandemic, worsening climate change and the rapid development of AI have all underscored the value of effective science communication that can reach public audiences in a rapidly transforming information, misinformation and media landscape. Students are more interested than ever in strategies for communicating science not just to other scientists but to the public.

To support aspiring science communicators in this vital work, this textbook provides a foundation in the rhetorical tools for engaging public audiences in inclusive and accessible ways that value the public's questions, stakes and expertise. The book includes chapters that guide students' work within specific, public-facing science communication genres including podcasts, opinion articles, interactive science exhibits, profiles and personal narratives. These seven genre-focused chapters each include histories, examples and steps for approaching work within a genre, along with a process for getting started. This is the first guide to communicating science to general audiences to take this genre approach. Communicating science in public must go beyond mere translation of complex ideas into accessible language; it must actively engage diverse audiences to build and sustain trust and understanding.

The book helps science communicators navigate a complex communication landscape, builds skills for engaging public audiences through multiple genres and modalities, and offers practical advice for scientists and science communicators who want to communicate their science more broadly.

Readership

The book is designed for undergraduate science and science communication students seeking strategies for sharing complex scientific ideas with public audiences, early career scientists looking to convey their research and its impact to the public, educators designing courses in science communication, and early career journalists and communication specialists working in academic, media and non-profit organizations.



Communicating Science in Public

Megan Shields Formato, Kevin C. Moore, Sarah Peterson Pittock, Emily Polk, and Cassie A. Wright

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Subject: General Science

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E. Scott Geller

E. Scott Geller is an Alumni Distinguished Professor Emeritus at Virginia Tech, US. Over 56 years, he taught and conducted research in the Department of Psychology, directing the Center for Applied Behavior Systems. Dr. Geller has authored or co-authored over 50 books and 700 publications focused on behavior-change interventions to enhance quality of life. He is a Fellow of multiple psychological associations and has received numerous awards, including Virginia's Outstanding Faculty Award and lifetime achievement honors.



Krista S. Geller

Krista S. Geller is Safety Director at Kiewit, US, with a Doctorate in Human Development from Virginia Tech. She specializes in behavioral science, focusing on family studies, gerontology, and pet-people relationships. As President of GellerAC4P, Inc., Dr. Geller has worked globally as a People-Based Safety and Human Performance Improvement consultant. She has authored research on behavioral safety and wellbeing, and at Kiewit, develops strategies to enhance safety, communication, and leadership through behavior analysis and feedback.

— E. Scott Geller and Krista S. Geller

the authors of *The Human Dynamics of Achieving an Injury-Free Workplace*, talk about building a culture where everyone actively cares for safety.

An injury-free workplace requires effective ongoing engagement of all employees actively caring for the safety of themselves and their coworkers. This research-based occupational health and safety workbook explains how to make that happen.

Readers learn ten safety-outcome objectives, each containing six evidence-based safety-action directives for addressing the human dynamics of injury prevention and cultivating an Actively Caring for People (AC4P) culture.

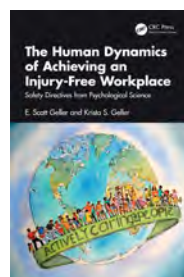
The 60 safety-action directives reflect diverse domains from applied psychological science: behavioural-science principles of positive versus negative reinforcement, observational learning, and behaviour-based feedback. Other lessons draw from humanism, including empathy, emotional intelligence, psychological safety, interdependency, systems thinking, and self-transcendence. Additional directives come from social psychology, covering social influence and group decision-making dynamics.

Each safety objective includes explanatory text, illustrations, discussion questions to inspire critical thinking, and relevant research references.

The workbook begins by exploring the complexity of human nature—the fundamental challenge of optimising individual and interpersonal dynamics for workplace safety. Subsequent objectives address how behavioural consequences motivate injury-preventive behaviour, how to promote safety-related empowerment and self-motivation, and how to conduct accurate analyses of close calls and injuries.

Further chapters explore applying social-influence principles to enhance employee engagement, mastering interpersonal coaching for behaviour-based safety, and practising interdependency and systems thinking to achieve synergy. The workbook introduces humanistic behaviourism—connecting actively (behaviourism) caring (humanism) for people (AC4P)—and addresses cultivating a healthy safety mindset through accepting stress whilst stifling distress, distinguishing between personal control and concern, and adopting continuous learning.

The final objective explains how to cultivate and sustain a total safety culture, offering three practical strategies for initiating, achieving, and nurturing this culture.



The Human Dynamics of Achieving an Injury-Free Workplace

Safety Directives from Psychological Science

E. Scott Geller, and Krista S. Geller

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Jean-Christophe Le Coze

Jean-Christophe Le Coze is a research director at Institut National de l'Environnement Industriel et des Risques, France. With over 20 years of experience, he specializes in safety culture, high-reliability performance, and sociological approaches to safety in complex industries such as chemical, nuclear, and railways. He has led multidisciplinary research and consulting programs, collaborated with organizations including TotalEnergies, L'Oréal, and CEA, and developed international training and workshops. He advocates for integrating diverse disciplines to address the evolving challenges of safety in global contexts.

Jean-Christophe Le Coze

the author of *Beyond Organisational Accidents*, discusses moving beyond human error towards sociological explanation and proactive safety.

James Reason has been one of the most influential authors in the field of safety. His book *Human Error* was a landmark contribution, opening a new era in our approach to safety. It established an explicit and accessible link between cognition, error, system, causation, safety and accident from the tradition of human factors and system safety.

When Reason published *Human Error* in 1990, there was an inherent tension in its title. The book was both a contribution to human error from the perspective of cognitive psychology and a rejection of human error as an explanation of technological disasters. This latter idea was amplified following catastrophes in the 1980s, including Challenger and Chernobyl. This period was also marked by landmark studies by sociologists on safety and disasters, who explicitly rejected human error as an explanation, which influenced Reason.

It became clear that a psychological approach to disasters was insufficient. Reason's well-known proposals—including "active failure" and "latent conditions", "sharp-end versus blunt-end", and the "Swiss-cheese model"—were his responses to the limitations of human error as an explanation. He expanded these ideas in his next book, *Managing the Risk of Organisational Accidents*, making the move beyond human error.

Several decades after his landmark publications, our view of organisational accidents and the performance of safety-critical systems has evolved. *Beyond Organisational Accidents* goes beyond human error and beyond Reason's proposals on the links between error, causation, systems, safety and accidents. The subtitle announces it explicitly: "safety causation and sociological explanation".

Reason emphasised the importance of sociology to this challenge. This book provides intellectual developments to help orient ethnographic research on safety-critical systems, for which there is a regular need for updated theoretical background adapted to their evolving complexity.



Beyond Organisational Accidents

Safety Causation and Sociological Explanation

Jean-Christophe Le Coze

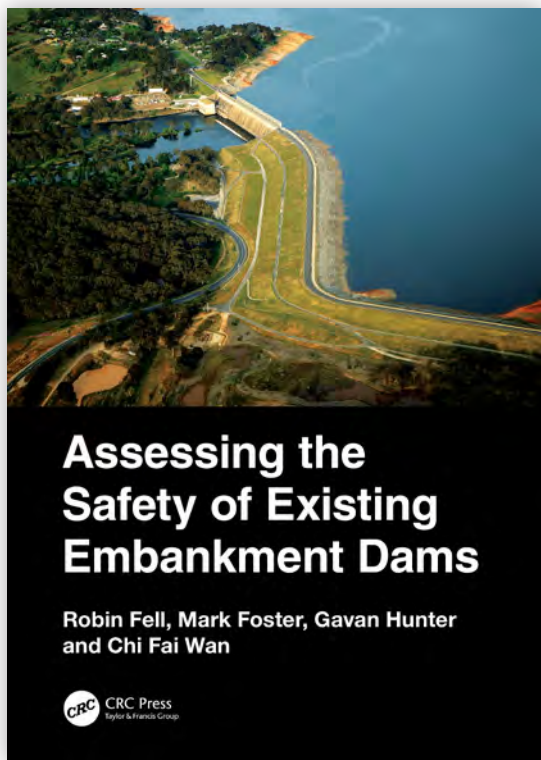
November 2026

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Subject: Cognitive Ergonomics

www.routledge.com/9781041339816



Assessing the Safety of Existing Embankment Dams

Robin Fell, Mark Foster, Gavan Hunter, and Chi Fai Wan

August 2026
ISBN: 9781032889047
810 Pages • 524 B/W Illustrations
Subject: Engineering / Civil & Mechanical Engineering
www.routledge.com/9781032889047



Robin Fell

has 58 years of experience in dam engineering, geomechanics, and slope stability across multiple countries. He specializes in embankment dam engineering and risk assessment, having worked on over 250 dams.



Mark Foster

has 30 years of experience in dam engineering, specializing in safety upgrades, embankment dams, and risk assessment. He co-authored *Geotechnical Engineering of Dams*.



Gavan Hunter

has 30+ years in geotechnical dam engineering, specializing in assessment, design, and construction upgrades for water storage and tailings dams across Australia and internationally.



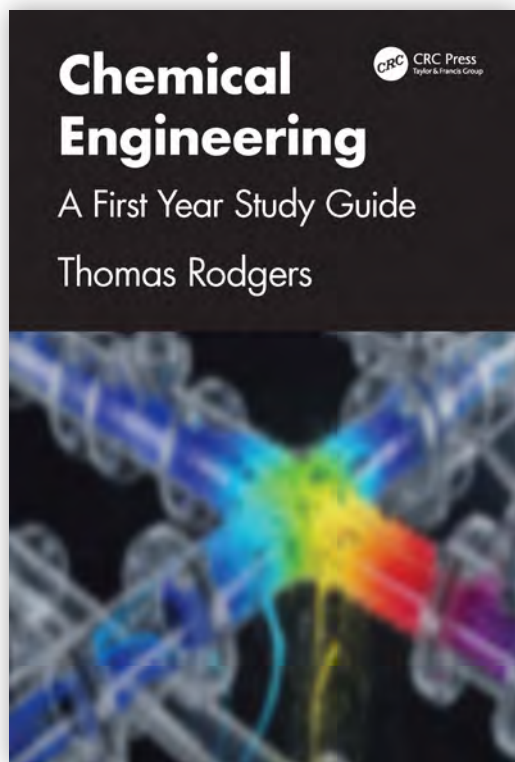
Chi Fai Wan

has 30+ years in dams engineering, specializing in internal erosion. He has published extensively and led dam safety upgrades internationally.

Many existing embankment dams were designed and constructed to standards below current requirements, potentially posing risks to downstream populations. Dam owners must assess whether these structures provide adequate safety or require upgrades to reduce risks to acceptable levels. This book provides in-depth analysis of dam failure mechanics alongside relevant engineering assessment methods.

The book provides comprehensive methods for assessing embankment dam safety across four critical failure modes: overtopping, slope instability, deformations under seismic loading, and internal erosion and piping. Assessment approaches include deterministic (standards-based), risk enhanced deterministic, quantitative risk assessment (QRA) and simplified QRA methodologies. These approaches represent current industry practice, drawing from the authors' extensive experience in dam safety assessment and upgrade design across more than 200 dams in Australia, New Zealand, Canada, the USA and Panama.

The book is designed to help dam owners, their consultant engineers and engineering geologists develop defensible safety assessments and upgrade designs for existing dams.



Chemical Engineering

A First Year Study Guide

Thomas Rodgers

August 2026
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784 Pages • 221 Color Illustrations
Subject: Chemical Engineering
www.routledge.com/9781032648866



Thomas Rodgers

is a Reader in Chemical Engineering Education at The University of Manchester. From 2019 to 2022, he served as Head of Education for Chemical Engineering, overseeing curriculum design and IChemE-accredited undergraduate and postgraduate programmes.

His research examines how students learn and prepare for teaching activities, including practical classes, with focus on student interaction with teaching materials, rich-media, and online flexible learning resources.

He has taught core chemical engineering subjects across all course years and received numerous teaching awards:

- 2023 Inclusive and Accessible Teaching Practice Award (Student's Union)
- 2021 Teaching Excellence Award
- 2019 Teaching Excellence Award (Highly Commended)
- 2016 Engineering and Physical Sciences Teacher of the Year Award

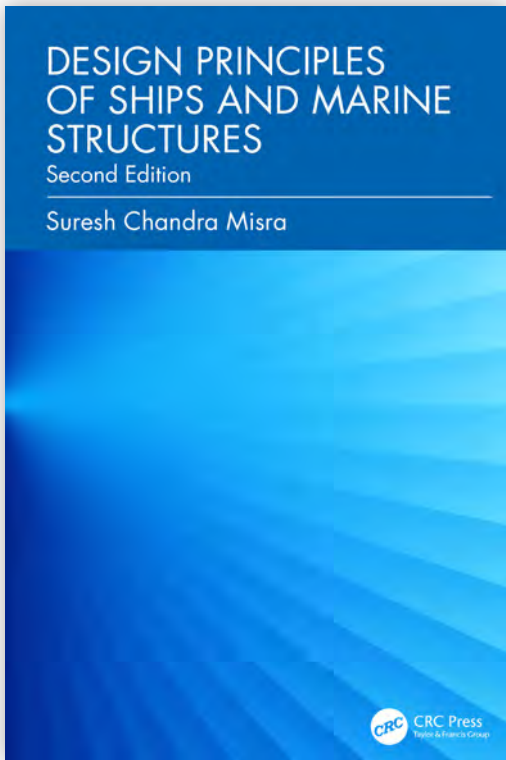
His expertise spans curriculum development, educational research, and innovative teaching practices in chemical engineering education.

This textbook introduces undergraduate Chemical Engineering students to core subjects: Process Engineering Fundamentals, Chemical Thermodynamics, Process Fluid Flow, Process Heat Transfer, and Chemical Reaction Engineering. It explains material accessibly, preparing students for advanced courses.

KEY FEATURES:

- Each chapter begins with learning goals and real-world application examples
- Includes tutorial problems, worked examples, and interactive graphs for knowledge testing
- Provides derivations for key equations ensuring grounded understanding
- Offers suggested reading for deeper exploration
- Concludes with a large design project integrating all subjects and introducing topics like safety and costings
- Flexible syllabi: follow one subject at a time or undertake all concurrently
- Solutions manual and figure files are available for professors

Written for students beginning their Chemical Engineering degree, this textbook covers basic theory through applications, helping students gain valuable insight into their field.



Design Principles of Ships and Marine Structures

2nd Edition

Suresh Chandra Misra

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ISBN: 9781041067092
616 Pages • 198 B/W Illustrations
Subject: Civil & Mechanical Engineering
www.routledge.com/9781041067092



Suresh Chandra Misra

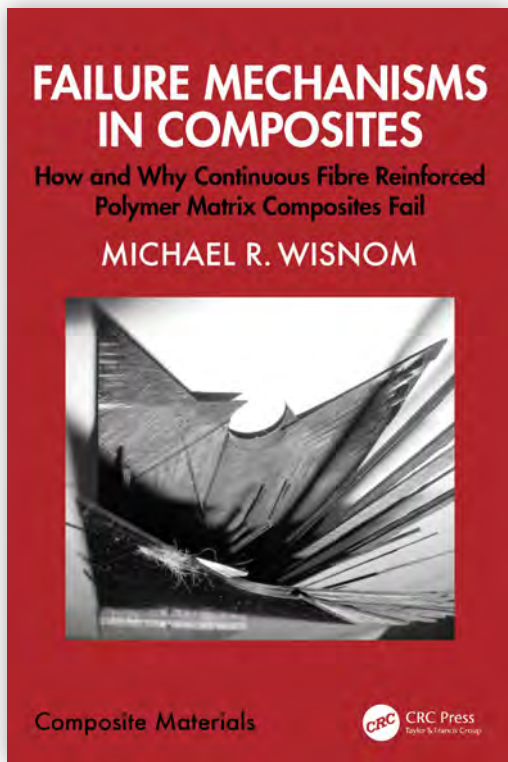
graduated with B Tech(Hons) in Naval Architecture from IIT Kharagpur in 1970 and obtained his Ph D from the University of Newcastle upon Tyne, UK in 1976. After a brief stint as design engineer in Hindustan Shipyard Ltd. at Visakhapatnam, he joined IIT Kharagpur as faculty and retired as Professor in 2013. From 2009 to 2013 he was the first Director of Indian Maritime University, Visakhapatnam campus. After retirement he has been a visiting faculty at different Indian institutions. He has served as the Chairman of Naval Research Board, DRDO NewDelhi, from 2016 till 2021. Currently he is a member of Board of Governors of National Institute of Ocean Technology, Chennai. He has obtained the Distinguished Alumnus Award, 2021 of IIT Kharagpur. He has also been conferred the Eminent Engineer Award in the Marine Engineering Division of the Institution of Engineers, India in December 2022. In March 2024 he has been awarded a Thank you citation for all-round contribution in the field of Naval Architecture by the Institution of Naval Architects, Mumbai. He is the Founder President of the technical society, Forum for River and Ocean Scientists and Technologies (FROST).

This book details every facet of ship design and design integration including naval architecture and marine engineering applications and principles relevant to the design of various systems, advanced numerical techniques applicable to maritime design procedure at the concept design stage. The second edition of this book discusses related sustainability aspects, high speed computing, handling of big data, data communication and virtual reality. It further includes second generation stability assessment and usage of alternative fuels.

KEY FEATURES:

- Highlights the shape design methodology of ship forms and layout design principles
- Discusses modern concepts of safety of marine vehicles and use of alternative? fuels for sustainability
- Introduces the design for production aspects in marine product development
- Covers climate change effects on marine environment
- Explores XR and Digital Twin concept applicability in the ship design process

This book is aimed at students and design professionals in the field of shipping, shipbuilding and offshore engineering.



Failure Mechanisms in Composites

How and Why Continuous Fibre Reinforced Polymer Matrix Composites Fail
Michael R. Wisnom

July 2026
ISBN: 9781032746418
308 Pages • 263 B/W Illustrations
Subject: Engineering / Materials Science
www.routledge.com/9781032746418



Michael R. Wisnom

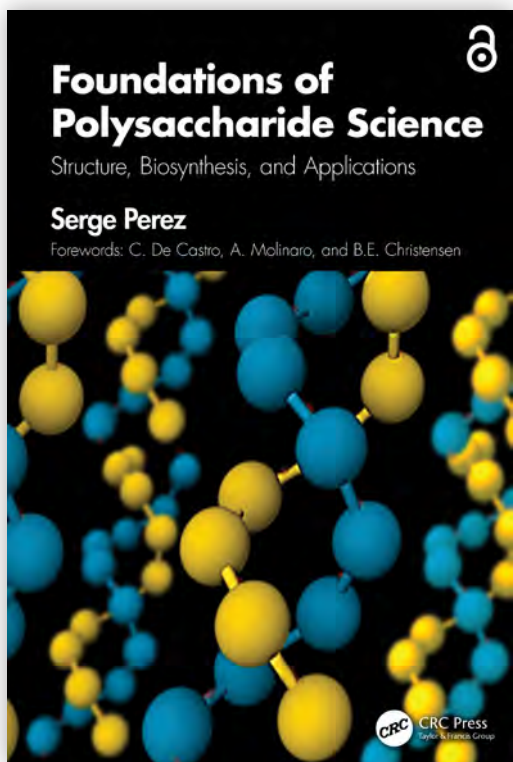
is Professor of Aerospace Structures in the Department of Aerospace Engineering at the University of Bristol. He was founding Director of the Advanced Composites Collaboration for Innovation and Science (ACCIS), established in 2006, and Bristol Composites Institute in 2017. He has published more than 500 research papers on the failure of composites.

This book provides comprehensive understanding of mechanical response and failure in continuous fibre-reinforced polymer matrix composites. Drawing on extensive research experience, it explains governing principles to help readers understand and avoid failures, supporting greater exploitation of these materials of the future.

KEY FEATURES:

- Systematically treats all potential failure modes in unidirectional and laminated composites
- Focuses on experimental observations and examples, describing key failure theories accessibly
- Provides fundamental understanding for successful composite applications
- Offers insight into behavioral differences between composites and metals
- Presents test methods for measuring strength and influencing factors
- Consolidates current knowledge and latest research findings

Failure Mechanisms in Composites benefits engineers and designers working with composites, those familiar with metallic materials seeking to understand differences, undergraduates with interest in the topic, master's students in materials and structures, and doctoral students researching composites.



Foundations of Polysaccharide Science

Structure, Biosynthesis, and Applications

Serge Perez

July 2026

ISBN: 9781041330462

336 Pages • 44 B/W Illustrations • 100 Color Illustrations

Subject: Biomedical Engineering

www.routledge.com/9781041330462



Serge Perez

earned his crystallography degree from the University of Bordeaux and held positions at the University of Oregon, University of Montreal, and Eastman Kodak before joining CNRS at CERMAV in Grenoble. He later founded a research group in Molecular Engineering at Institut National de la Recherche Agronomique in Nantes, then returned to Grenoble as CERMAV Chairman and subsequently served as Scientific Director at the European Synchrotron Radiation Facility.

His research focuses on structural and conformational analysis of oligosaccharides, polysaccharides, glycoconjugates, and protein-carbohydrate interactions, utilizing computational chemistry, molecular modeling, crystallography, and NMR spectroscopy. He has authored approximately 350 peer-reviewed articles in structural glycoscience.

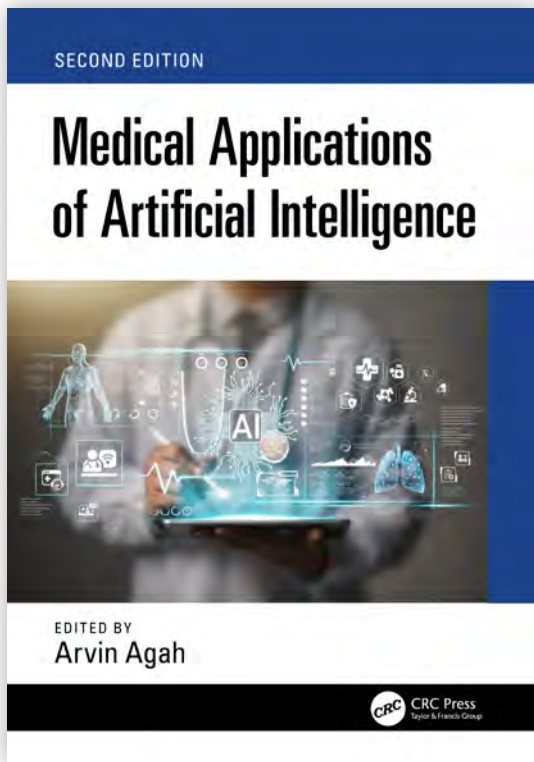
Perez actively contributes to scientific evaluation committees, collaborative frameworks, and glycoscience promotion. He serves on editorial boards including Carbohydrate Research and has authored books on chitin, biomass, algae, and ocean plastics. He maintains strong interest in research infrastructure evaluation, startup enterprises, and e-learning through Glycopedia.

This book examines the role of polysaccharides as essential biopolymers, tracing their origins, structural organization, and applications in materials science, healthcare, and environmental sustainability. It provides a detailed exploration of their biosynthesis, functional modifications, and industrial uses. By connecting molecular science with practical applications, the book highlights the importance of polysaccharides in advancing biomedical technologies and sustainable materials.

KEY FEATURES:

- Explains the genesis and natural sources of polysaccharides across plants, animals, fungi, bacteria, and algae.
- Describes the biosynthesis pathways and functional modifications of polysaccharides for diverse applications.
- Highlights industrial uses, including their roles in material making, coatings, gels, and 3D structures.
- Explores biomedical applications such as wound healing, biofilm disruption, and anticancer activity.
- Provides insights into the structural and functional versatility of polysaccharides in sustaining life.

This book is intended for students, researchers, academics, and industry professionals interested in polysaccharide science and its applications.



Medical Applications of Artificial Intelligence

2nd Edition

Edited by Arvin Agah

November 2026

ISBN: 9781041215189

632 Pages • 13B/W Illustrations • 101 Color Illustrations

Subject: Biomedical Engineering

www.routledge.com/9781041215189



Dr **Bold Arvin Agah**

is Charles E. & Mary J. Spahr Professor of Electrical Engineering and Computer Science at the University of Kansas, which he joined in 1997. He served as the Dean of Engineering from 2018 to 2024 and Associate Dean for Research and Graduate Programs from 2012 to 2018. His research interests include medical applications of artificial intelligence (AI), applied AI, and autonomous mobile robots. He has received multiple honors for his teaching excellence, including two university-wide awards.

This new edition examines the intersection of artificial intelligence and medicine, showcasing how AI techniques assist medical professionals by making healthcare more accurate, affordable, accessible, and efficient. The book presents a holistic perspective on AI in medicine, from foundational principles to advanced applications.

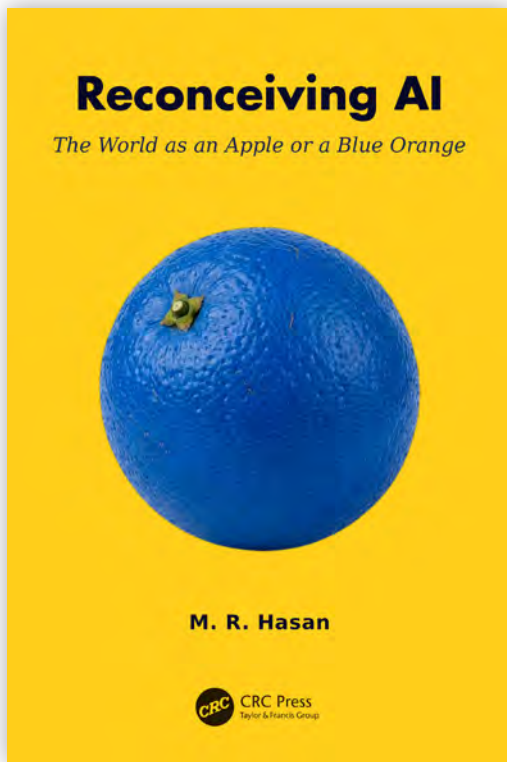
Medical Applications of Artificial Intelligence, Second Edition delivers up-to-date coverage of diverse AI applications across healthcare domains including disease detection and diagnosis, medical imaging, surgery, drug development, healthcare administration, electronic health records, personalized medicine, telehealth, and patient monitoring.

KEY FEATURES:

- Reflects significant recent advancements in AI applications in medicine
- Incorporates latest research in clinical decision support systems, medical imaging analysis, and precision medicine
- Explains new AI techniques—support vector machines, deep learning, and decision trees—in accessible language
- Provides extensive references for deeper exploration
- Offers broad international perspective on medical AI applications
- Emphasizes that AI systems assist, not replace, medical professionals
- Significantly expanded resources section covering scientific journals, national and international conferences, and academic programs focused on AI in medicine

AUDIENCE:

This book serves AI experts interested in applying their knowledge to medical domains and medical professionals seeking to enhance their practice using AI techniques.



Reconceiving AI

The World as an Apple or a Blue Orange
M. R. Hasan

August 2026
ISBN: 9781041033417
220 Pages • 26 Color Illustrations
Subject: Computer Engineering
www.routledge.com/9781041033417



M. R. Hasan

is an AI researcher and professor at the University of Nebraska-Lincoln, where he directs the Human-First AI Lab (HAL 2.0), named in pointed contrast to Kubrick's rogue creation. This book began at a Cézanne retrospective in Chicago in 2022, with a question: What did a painter who spent thirty years on apples understand about perception that the most sophisticated AI still misses? That question became this book. Born in Bangladesh, Hasan writes from the productive contradictions of immigrant consciousness: between languages, between cultures, between the home he left and the home he is still making.

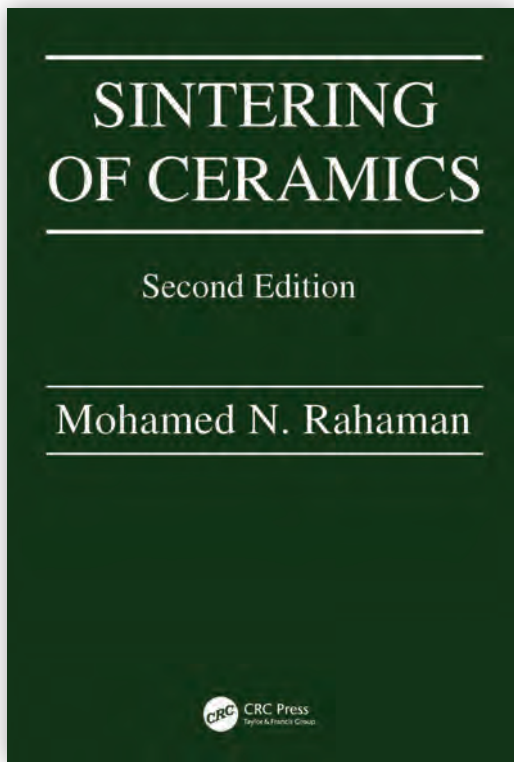
What if everything we assume about artificial intelligence rests on a misconception of human intelligence? This book challenges those assumptions, arguing that human cognition cannot be replicated through data and processing power alone, and proposes a “Blue Orange Mind” emerging from human-machine collaboration.

Reconceiving AI: The World as an Apple or a Blue Orange draws its central insight from Paul Cézanne, who spent thirty years learning to see an apple and discovered what neuroscience would confirm a century later: seeing is not receiving but creating. The book pursues this discovery into the nature of intelligence: What does it mean to perceive? To understand language? To reason morally? To imagine what doesn't exist?

Each question leads through artists, poets, philosophers, neuroscientists, novelists, and filmmakers toward richer understanding of human consciousness and its relationship to artificial minds. The current AI paradigm builds machines as mirrors of narrow human rationality, failing to grasp that human intelligence thrives on paradox, contradiction, and uncertainty, emerging from embodied experience, symbolic thinking, and irreducible diversity of minds.

Beyond this “cracked mirror,” the author proposes the Blue Orange Mind: intelligence that neither humans nor machines can achieve alone, arising from interplay between what we are and what we might create.

Written for AI researchers, developers, students, and anyone curious about intelligence's future, this book invites readers to understand why consciousness cannot be copied and imagine what becomes possible when we build machines as genuine partners in constructing meaning.



Sintering of Ceramics

2nd Edition

Mohamed N. Rahaman

July 2026
ISBN: 9781041070412
456 Pages • 321 B/W Illustrations
Subject: Engineering / Materials Science
www.routledge.com/9781041070412



Mohamed N. Rahaman

is Professor Emeritus in the Department of Materials Science and Engineering at Missouri University of Science and Technology, formerly the University of Missouri–Rolla, where he was a full time faculty member for over 30 years. His books titled *Ceramic Processing*, now in its second edition, and *Sintering of Ceramics* are used at several universities where ceramics courses are taught and in the ceramics field in general. Dr. Rahaman is a Fellow of the American Ceramic Society and the author or co author of over 270 refereed publications.

Sintering of Ceramics provides comprehensive treatment of sintering theories and principles applied to producing advanced ceramics with required target microstructures. This revised Second Edition reflects major field developments and offers a more practical approach to sintering principles and methods.

KEY FEATURES:

- Two new chapters on numerical simulation of sintering and rapid sintering of ceramics
- New coverage on grain boundary complexions for microstructural control and expanded treatment of sintering stress as the driving force
- Comprehensive coverage of sintering fundamentals, solid-state sintering, viscous sintering, grain growth, microstructural control, liquid-phase sintering, and pressure-assisted sintering
- Special topics including sintering difficulties, effects of structural inhomogeneities, constrained sintering of composites, adherent thin films and multilayers, morphological stability, and sintering with concurrent reaction or crystallization
- Practical methods for improving sintering techniques, effects of process variables, and applications to advanced ceramics development

AUDIENCE:

Essential text for senior undergraduate, introductory graduate, or continuing education courses in sintering; ideal reference for scientists and engineers in advanced ceramics research, development, and manufacturing. Includes Solutions Manual and Figure Slides for instructors.



The Mining Rush in the 21st Century

Dynamics and Outlooks for 2050

Obambi Djeni Saturnin

November 2026
ISBN: 9781041385691
360 Pages
Subject: Civil & Mechanical Engineering
www.routledge.com/9781041385691



Obambi Djeni Saturnin

is an internationally renowned multidisciplinary expert in the solid mining sector, with over 25 years of operational experience deployed across four continents — Africa, Latin America, Europe and Asia. A mining engineer, he graduated from the Higher Institute of Metallurgy of Moa (Cuba, class of 2000), and also holds a Master in Business Administration (E-MBA) from Atlantic International University (Honolulu, USA), a Diploma in Gemmology from the Montreux School of Gemmology (Switzerland), a Certificate in Mining Legal Expertise and a Diploma in Mining Planning Engineering from the Virtual University of Gabon (UNIVIGA), as well as a Certification as a Mining Financial Analyst. Obambi Djeni Saturnin, an ESG expert certified by the International ESG Institute & Carbon Credit Certification Board (2024), has established himself as an essential reference in extractive governance, forward-looking analysis of carbon credits, digital transformation of mining operations and negotiation of high strategic value international contracts.

The Mining Rush in the 21st Century: Dynamics and Outlooks for 2050 is a geopolitical analysis that explains how the global energy transition and the digital revolution are creating massive demand for strategic metals such as lithium and cobalt, forcing humanity to extract more resources in 25 years than in its entire history to combat global warming, while highlighting the risks of dependence, environmental challenges and opportunities for Africa.

The book covers a broad spectrum, from the urgency of time – with a critical window of action closing in 2032 – to the vulnerabilities of supply chains, dominated by China (85% of rare earths) and the DRC (70% of cobalt). It highlights the paradox of the green transition: to save the planet from global warming, metals must be extracted on a massive scale, posing colossal technical, environmental, social and ethical challenges. The scope extends to technological innovation (AI in prospecting, seabed mining), Africa's pivotal role in sustainable development beyond the colonial extractive model, and projections up to 2050. Aimed at a diverse audience – researchers, students, decision-makers, NGOs – the book includes more than 50 graphs, case studies (e.g. scandals in the DRC), expert boxes and a glossary for accessibility. It stands out for its holistic approach, combining field expertise, quantitative data (IEA, USGS) and concrete solutions for responsible governance, bridging the gap between geopolitical and technical analyses. It also anticipates post-2025 trends to guide the securing of global supplies.



Warship Design and its Management

A Systems Engineering Perspective

Pramod R. Kulkarni

August 2026

ISBN: 9781041082132

606 Pages • 162 B/W Illustrations • 2 Color Illustrations

Subject: Civil & Mechanical Engineering

www.routledge.com/9781041082132



Pramod R. Kulkarni

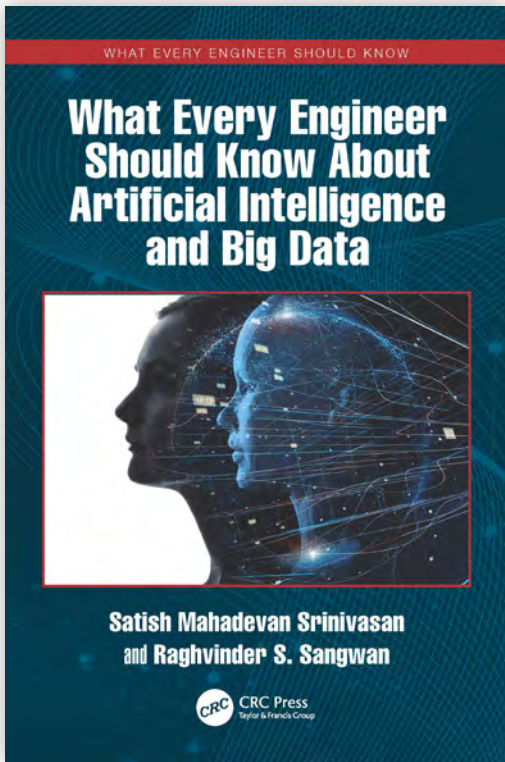
served thirty-six years in the Indian Navy's Corps of Naval Constructors, executing complex New Product Development and R&D projects across the entire warship lifecycle—from conceptualization and design to construction, operation, and modernization. He held senior roles at the Warship Design Bureau, shipyards, and naval dockyards, including heading the Forward Design Group and serving as Warship Production Superintendent at Garden Reach Shipyard and Mazagon Dock Ltd. For over ten years, he taught and researched Warship Design and Naval Architecture at IIT-Delhi, heading the Naval Construction Wing. His qualifications include B.Tech (Mechanical), PG Diploma in Naval Construction (IIT-Delhi), M.Sc (Naval Architecture, University College London), Ph.D (Warship Aerodynamics, IIT-Delhi), and M.M.S (College of Defence Management).

This textbook establishes the foundational engineering principles that govern warship design and describes the strategic thinking that informs the conceptualisation of new warship classes. It explains the distinctive features of the warship acquisition process and develops the reader's understanding of the warship as an integrated, complex system. Coverage spans the full spectrum of activities required to take a new warship concept to operational readiness, from initial concept exploration through delivery and acceptance. Topics include synthesis and analysis during design development, management of design through successive phases, systems integration challenges and methodologies, and lifecycle support considerations for modernisation and sustainment.

KEY FEATURES:

- Covers detailed Measures of Performance (MOPs), a Test and Evaluation Master Plan (TEMP) and clear flow-charts that depict systematic design methodologies across major shipboard systems.
- Traces the evolution of warship design over the past millennium and draws implications contemporary and future designs.
- Provides practical insight into how performance requirements translate into system-level solutions and how multidisciplinary decisions affect overall platform capability.
- Includes thirty real-world case studies that illuminate applied problems, trade-offs, and lessons learned from actual programmes.

This book is suitable for ship design university courses and naval training programmes in Warship Engineering, as well as for stakeholders involved in warship's design, construction and acquisition.



What Every Engineer Should Know About Artificial Intelligence and Big Data

Satish Mahadevan Srinivasan,
and Raghvinder S. Sangwan

July 2026
ISBN: 9781032829852
316 Pages • 60 B/W Illustrations
www.routledge.com/9781032829852



Satish Mahadevan Srinivasan

is an Associate Professor of Information Science at Pennsylvania State University, Great Valley. He teaches courses related to database design, data mining, data collection and cleaning, data visualization, computer, network and web securities, network analytics and business process management.



Raghvinder S. Sangwan

is a Professor of Software Engineering at Pennsylvania State University with expertise in analysis, design, and development of large-scale software-intensive systems, and the use of AI engineering to design and develop intelligent systems that are safe, secure, and trustworthy.

Recognizing the vast potential in analyzing big data through machine learning (ML) and artificial intelligence (AI) technologies, companies are acknowledging these technologies as essential for maintaining relevance. A prevailing trend is emerging toward the adoption of distributed open source computing for storing big data assets and performing advanced ML/AI analytics to predict future trends and risks for businesses. This book offers readers an overview of the essentials of big data and ML/AI, while acknowledging that the field is extensive and evolving. In addition to focusing on theory, this book shares real life experiences building AI and big data analytics systems of value to practitioners.

KEY FEATURES:

- Features practical case studies on building big data and AI models for large scale enterprise solutions
- Discusses the use of design patterns for architecting AI that are safe, secure, and testable
- Covers an array of concepts, including deep big data analytics, natural language processing, transformer architecture, and evolution of ChatGPT, swarm intelligence, and genetic programming

Informed by the authors' many years of teaching ML and AI and working on predictive data analytics/AI projects, this book is suitable for use by graduates, professionals, and researchers within the field of data science and engineers and scientists interested in learning more about these essential technologies.



A Practical Guide to Escape Room Design

Michiel van Eunen, and Karen Sikkema

October 2026

ISBN: 9781041107699

216 Pages • 17 B/W Illustrations • 40 Color Illustrations

Subject: Game Design

www.routledge.com/9781041107699



Michiel van Eunen

is hands-on expert in escape room design, with deep experience in game-based learning, immersive storytelling, and interactive experiences. As co-founders of Living Story, they have designed dozens of escape rooms, serious games and immersive experiences for entertainment, education and professional training. They regularly share their expertise through workshops, masterclasses and international conference talks. Their previous book, *Spelen Werkt (Playing Works)*, became Managementbook of the Year in the Netherlands in 2023.



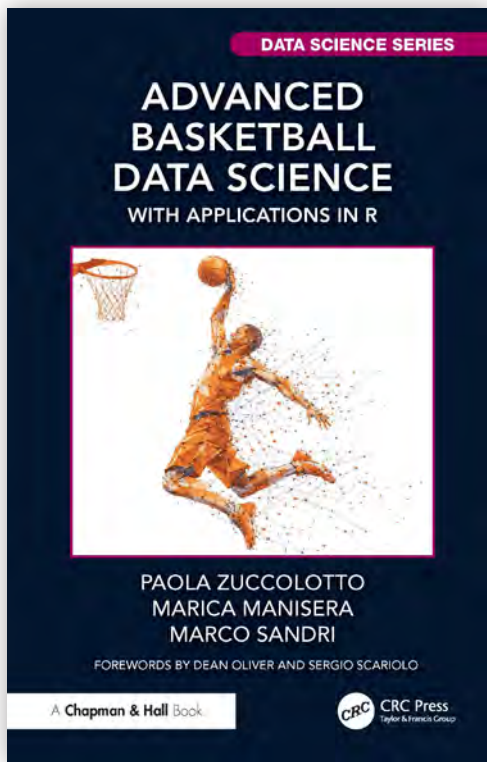
Karen Sikkema

is hands-on expert in escape room design, with deep experience in game-based learning, immersive storytelling, and interactive experiences. As co-founders of Living Story, they have designed dozens of escape rooms, serious games and immersive experiences for entertainment, education and professional training. They regularly share their expertise through workshops, masterclasses and international conference talks. Their previous book, *Spelen Werkt (Playing Works)*, became Managementbook of the Year in the Netherlands in 2023.

What makes an escape room truly unforgettable? It's not just the puzzles. In *A Practical Guide to Escape Room Design*, Michiel van Eunen and Karen Sikkema take you behind the scenes of escape room creation and show how great rooms are really designed.

From choosing a theme and crafting a story to building puzzles, structuring the game and playtesting with real players, this hands-on guide walks you through the entire design process. Along the way, you'll discover the principles, pitfalls and practical tricks that experienced designers use to turn ideas into immersive experiences.

Whether you're building your first escape room or refining your next one, this book will help you create games that challenge, surprise and delight your players.



Advanced Basketball Data Science

With Applications in R

Paola Zuccolotto, Marica Manisera,
and Marco Sandri

August 2026
ISBN: 9781032502212
342Pages • 12 B/W Illustrations • 98 Color Illustrations
Subject: Data Science

www.routledge.com/9781032502212



Paola Zuccolotto

is a Full Professor of Statistics at the University of Brescia, specializing in multivariate data analysis, data mining, machine learning, and time series analysis. She directs the Big&Open Data Innovation Laboratory, co-founded the Big Data Analytics in Sports network.



Marica Manisera

is an Associate Professor of Statistics at the University of Brescia, specializing in multivariate analysis, data mining, and predictive modeling. She chairs the International Statistical Institute's Special Interest Group on Sport Statistics, serves as Associate Editor of the *Journal of Sports Analytics*, co-founded the Big Data Analytics in Sports network.



Marco Sandri

is a freelance statistician with nearly 30 years of experience in time series analysis, machine learning, biostatistics, and sports analytics. He specializes in modeling complex phenomena across medicine, biology, and sports, particularly basketball analytics. He co-developed the BasketballAnalyzer R package.

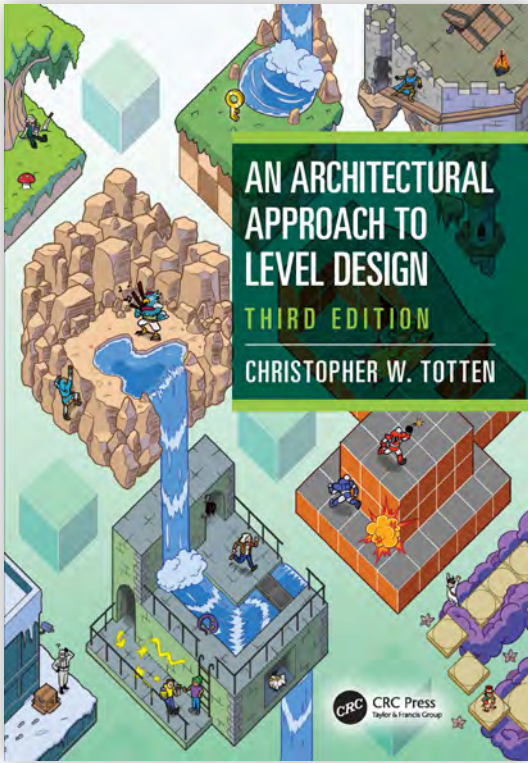
Advanced Basketball Data Science: With Applications in R is the essential next step for pushing basketball analytics beyond standard metrics. Building on *Basketball Data Science* (2020), this book explores advanced statistical modeling, machine learning, and computational techniques applied to basketball.

From lineup optimization and clutch-performance analysis to player tracking, pose estimation, and ball-trajectory modeling, it reveals hidden patterns shaping on- and off-court decision-making. Readers learn to build robust, reproducible workflows using real data, executable R code, and structured project environments.

Designed for analysts, coaches, researchers, and graduate students, this volume translates complex concepts into actionable tools for scouting, strategy, and performance evaluation.

KEY FEATURES:

- Combines advanced statistics, machine learning, and computer vision for cutting-edge basketball analytics
- Provides fully reproducible workflows with datasets and R code
- Integrates real-world case studies demonstrating rigorous methodology and actionable insights



An Architectural Approach to Level Design

3rd Edition

Christopher W. Totten

December 2026
ISBN: 9781003863205
650 Pages • 295 B/W Illustrations • 114 Color Illustrations
Subject: Game Design
www.routledge.com/9781003863205



Christopher W. Totten

is an Associate Professor and Program Coordinator of the Animation Game Design program at Kent State University. He is also an award-winning independent game designer, artist, and animator. He holds a master's degree in architecture (M.Arch) with a concentration in digital media from the Catholic University of America. Chris is a co-founder of the Smithsonian American Art Museum Arcade and a lifetime member of the International Game Developers Association (IGDA). He was a member of the inaugural class for the IndieCade Horizons Faculty Excellence Awards, winning the Innovation Award for his work building an appreciation for games in the context of the arts. He has written multiple books on design, including *An Architectural Approach to Level Design* and *World Design in 2D Action-Adventures*, he is also the editor of the collected volume, *Level Design: Processes and Experiences* and the Level Design Practices series.

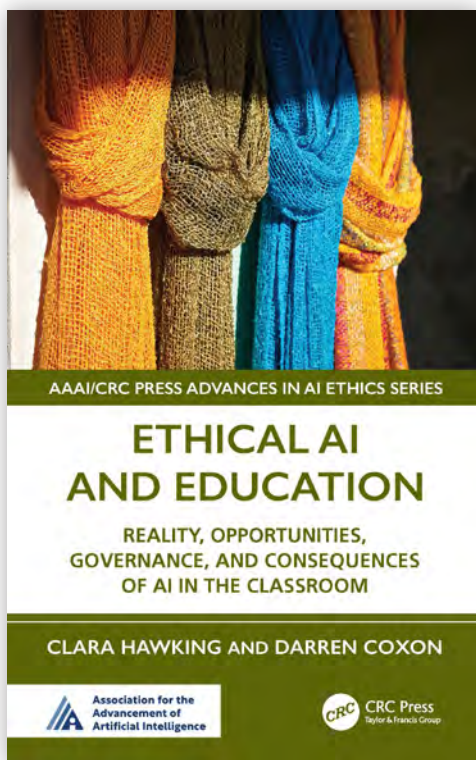
This book explores level design principles through architecture's context and history. Written by a game developer and professor trained in architecture, it integrates architectural and spatial design theory with level design.

Fully updated for the third edition, Christopher W. Totten presents architectural techniques for designers to apply in their work, connecting architecture and level design through practical construction elements and experiential human interaction with space. The edition maintains focus on player-centered design in handmade levels while addressing evolving technical pipelines.

Learn skills for spatial layout, evoking emotion through gamespaces, and creating better levels via architectural theory. This edition includes a new chapter on building levels that connect with players over extended gameplay, updated references, industry perspectives, and enhanced practical emphasis.

KEY FEATURES:

- Case studies on modern practices and tools
- Industry perspectives and historical insights
- Emotion-driven spatial design techniques
- Chapter exercises for prototyping and playtesting



Ethical AI and Education

Reality, Opportunities, Governance, and
Consequences of AI in the Classroom

Clara Hawking, and Darren Coxon

October 2026

ISBN: 9781041120902

261 Pages

Subject: Computer Science / Ethics

www.routledge.com/9781041120902



Clara Hawking

is an AI Governance leader and Ethicist specializing in AI ethics. She works with schools, governments, and international organizations to support responsible AI integration into learning environments. Clara has led large-scale AI governance initiatives, trained thousands of educators, advises global institutions on AI in education, and speaks frequently on AI policy, governance, and education's future.



Darren Coxon

is an education leader, researcher, and writer specializing in digital strategy, educational technology, and institutional development. He focuses on pedagogy, technology, and system-level change in schools. Darren has held senior leadership roles in international education and contributed to research on digital transformation, curriculum innovation, and emerging technologies' impact on teaching and learning, exploring how schools can respond thoughtfully to rapid technological change.

Ethical AI and Education: Reality, Opportunities, Governance, and Consequences of AI in the Classroom examines how artificial intelligence is entering schools and what responsible use requires from educators, leaders, and policymakers. It moves beyond claims of inevitable transformation to ask how decisions about AI are made, who holds responsibility, and what is at stake when educational judgment is shaped by automated systems.

The book develops a governance-based approach to artificial intelligence in education, grounded in ethics, law, and institutional practice. It addresses core issues including bias, datafication, academic integrity, teacher agency, and global inequality, while placing recent developments such as generative AI within a longer trajectory of educational technology. Drawing on international frameworks, including the European Union Artificial Intelligence Act, it provides practical guidance for schools seeking to implement AI in ways that are lawful, accountable, and educationally meaningful. The central argument is that ethical AI in education depends not on tools alone, but on structures of oversight, professional judgment, and institutional responsibility.

For researchers, educators, and policymakers seeking to understand not only how artificial intelligence is entering education, but how it should be governed, this book provides both analysis and direction.



How To Build Accessible Games

Joe Kinglake

December 2026
ISBN: 9781003610496
240 Pages • 48 Color Illustrations
Subject: Game Design

www.routledge.com/9781003610496



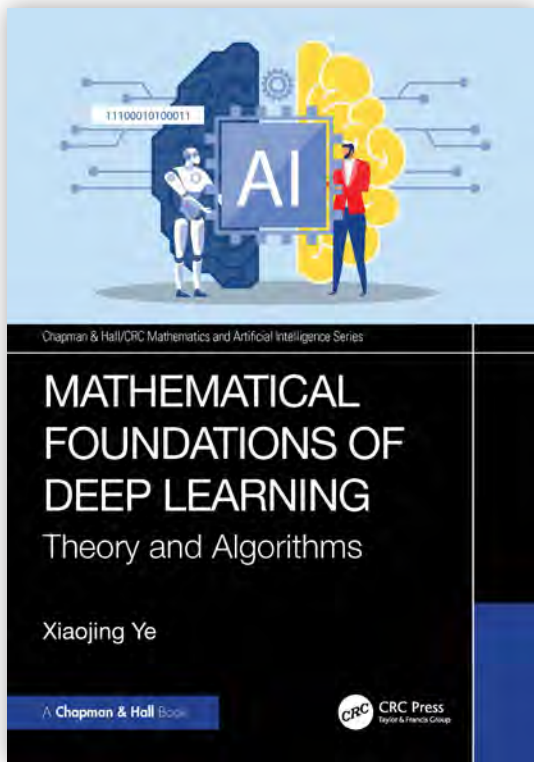
Joe Kinglake

is a professional Design Director with 12 years of experience in the AAA video games industry, having worked on some of the world's biggest titles. Joe has spent the last 6 years of their career actively engaged in bringing a focus to making the industry a more inclusive, accessible place.

This book challenges misconceptions about game accessibility practices, teaches you the innovative and economic benefits of accessibility, and provides you with tools needed to responsibly improve the accessibility of your game. Advocating for accessibility and getting buy-in within a business setting can be challenging; this book is your helpful guide to navigating these challenges!

It begins by explaining the philosophy of universal design and how it applies to game accessibility, and how making accessible games will make them generally more enjoyable and usable for everyone. It shows best-in-class examples of accessibility and highlights opportunities that can be directly applied to your projects. Finally, it asks and answers the question: how does building inaccessible games affect the quality of our games, hurt the trust the audience has in us, and impact profits and generate press?

This book will be of great interest to all those within the field of game design and development, including newcomers, seasoned developers, publishers, and educators.



Mathematical Foundations of Deep Learning

Theory and Algorithms

Xiaojing Ye

August 2026
ISBN: 9781032877082
284 Pages • 25 B/W Illustrations
Subject: Mathematics / Computer Science
www.routledge.com/9781032877082



Dr. Xiaojing Ye

is a Professor of Mathematics at Georgia State University in Atlanta, USA. His research focuses on applied and computational mathematics, particularly numerical methods integrating deep learning for scientific computing, network science, numerical optimization, and image processing.

Dr. Ye began undergraduate studies at Peking University in 2001, initially majoring in chemistry before transferring to mathematics in 2002 with a physics minor. He received his Bachelor's degree in Mathematics in July 2005. After one year of professional experience, he pursued graduate studies at the University of Florida, earning a Master's in Statistics (2009) and Ph.D. in Mathematics (2011). He served as Visiting Assistant Professor at Georgia Institute of Technology before joining Georgia State University in 2013 as Assistant Professor, where he earned tenure and promotion to Full Professor.

Mathematical Foundations of Deep Learning offers comprehensive, rigorous treatment of mathematical principles underlying modern deep learning. The book spans core theoretical topics, from approximation capabilities of deep neural networks and optimal control theory to reinforcement learning integrated with deep learning techniques and contemporary generative models driving artificial intelligence advances.

Designed as both a graduate/advanced undergraduate textbook and long-term reference, this volume equips students with solid mathematical understanding while serving researchers, scientists, and engineers seeking principled frameworks for developing and analyzing modern AI systems.

KEY FEATURES:

- Comprehensive and rigorous, featuring detailed theoretical developments, mathematical proofs, and algorithmic frameworks
- Materials support a full one-semester graduate course
- Concise yet precise exposition using exact, rigorous mathematical language



Python for Asset Management

Ignacio Cervera, and Natalia Cassinello

August 2026
ISBN: 9781041308324
336 Pages • 58 Color Illustrations
Subject: Applied Mathematics
www.routledge.com/9781041308324



Ignacio Cervera

holds a PhD in Business Administration from Universidad Pontificia Comillas (Madrid) and an MBA from Instituto de Empresa. He is Professor of Corporate Finance and Portfolio Management & Investments, and co-director of the Asset Management Chair at Pontificia Comillas University since 2015. His research focuses on sustainability, investment funds, financial analysts, and financial and energy markets. He previously served as Director of Administrative and Financial Department at Tecnológica SA (1987–1990).



Natalia Cassinello

holds a PhD in Business Administration and an Executive Master's in Behavioral Economics from LSE. She is Professor in Finance and ESG and Co-Director of the Asset Management Chair at Universidad Pontificia Comillas, Madrid, and serves as Deputy Chief Financial Officer. Her research focuses on sustainability, investment funds, and health economics. She has worked as strategic consultant at McKinsey & Co (1990–1994), financial and tax advisor at law firms (1995–2003), and Director of Recruitment at Boston Consulting Group (2003–2006).

The asset management industry is shifting toward automation, transparency, and data-driven decision-making. Traditional tools are being replaced by programmable, scalable solutions, yet most finance professionals lack accessible training in applying Python to real portfolio problems.

Python for Asset Management fills that gap, empowering non-programmers—portfolio managers, risk analysts, and students—to implement advanced models. It addresses growing demand for quantitative literacy in finance, especially in sustainable investing and smart beta strategies.

KEY FEATURES:

- 31 hands-on Python exercises with real data and executable code
- Complete GitHub repository (MIT License) with scripts, data pipelines, and results
- Step-by-step implementation of VaR, bond immunization, and factor models
- Real-world decision tools for portfolio construction and performance attribution
- Immediate applicability—every exercise produces client-ready deliverables
- Focus on practical asset management workflows



Technical Animation in Video Games

2nd Edition

Matthew Lake

October 2026
ISBN: 9781041116578
336 Pages • 32 B/W Illustrations • 289 Color Illustrations
Subject: Game Design

www.routledge.com/9781041116578



Matthew Lake

is an author and video game developer specializing in technical animation. He began his career producing short films in YouTube's early days, collaborating with online entertainment network Machinima. With over a decade in content creation, he discovered a passion for interactive storytelling and transitioned to video game development.

After earning a Bachelor of Arts in Computer Games Animation, Matthew worked as technical animator on games including the multiplayer PlayStation 5 launch title *Destruction AllStars* and served as lead technical animator on the single-player narrative title *Fort Solis*. He has shared his expertise through technical presentations at international conferences, including the Game Developers Conference (GDC) and Epic Games' UnrealFest.

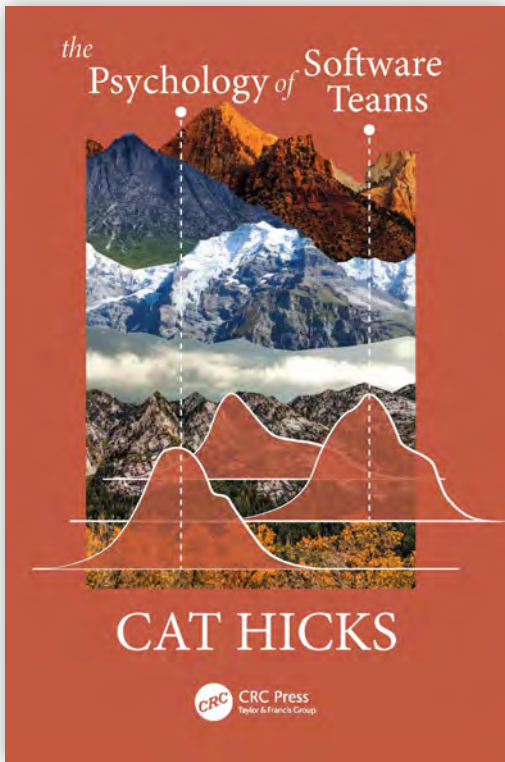
Matthew is also author of a published technical book focused on Technical Animation in Video Games, offering insights for aspiring and professional developers alike.

This book provides comprehensive coverage of video game technical animation, exploring next-generation pipelines that industry developers use to create games. It covers the technical animation workflow from start to finish, examining software, hardware, and industry-standard processes essential for all technical animators.

Written as an accessible resource, this book combines easy-to-understand principles with educational use cases demonstrating how to apply the tools and techniques taught. Example test scripts, animation files, and rig assets are provided as tangible examples for modification and deeper learning. It covers the end-to-end pipeline—from placing joints in Autodesk Maya to bring characters to life, through tools and automation development, to Unreal Engine 5 integration and optimization. This second edition includes a new chapter on additional character animation and fully updated software version references.

Additional resources are available on the book's GitHub repository, including Maya example files and Python scripts.

Essential reading for early-career game technical animators, animation students, and film industry technical animators.



The Psychology of Software Teams

Cat Hicks

July 2026
ISBN: 9781032963389
210 Pages • 3 B/W Illustrations • 5 Color Illustrations
Subject: Computer Science / Social Psychology
www.routledge.com/9781032963389



Cat Hicks

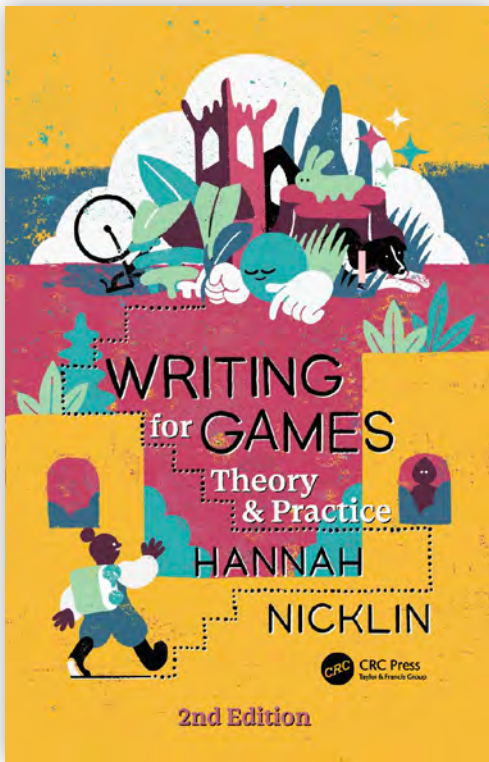
is a psychological scientist who creates open science to drive change for people doing technical work. She holds a PhD in Quantitative Experimental Psychology from UC San Diego and is the founder and principal scientist of Catharsis, a scientific consultancy that helps organizations transform with human-centered evidence strategies.

drcathicks.com

To build the future, we need new ways of supporting software teams. This book will give you a secret weapon: the psychology that creates resilience for developers, sustainable practices for software teams, and innovation for organizations. You'll learn from rigorous empirical evidence gathered from top engineering organizations and thousands of developers around the world, revealing powerful principles software teams can use to guard against failure and drive cultures of collaboration and problem-solving.

Making incredible software doesn't have to be a death march—this book presents a humane alternative for software teams looking to use the transformative power of behavioral science to understand what drives technology businesses forward. *The Psychology of Software Teams* provides a model for developers and leaders who want to bring the human back to tech and take a science-based approach to unlocking the “black box” of software engineering.

This book is for the developers and builders of the future. Bringing science and heart together, *The Psychology of Software Teams* will teach you how to untangle your thinking from pervasive myths about software work and harness the superpowers of psychology to create more joyful, innovative, and thriving environments for software.



Writing for Games

Theory and Practice, *2nd Edition*

Hannah Nicklin

December 2026

ISBN: 9781041158325

336 Pages

Subject: Game Design

www.routledge.com/9781041158325



Hannah Nicklin

is an award-winning narrative and game designer, writer and academic who has been practising for over 15 years. She works hard to create playful experiences that see people and make people feel seen and also argues for making games a more radical space through mentoring, advocacy and redefining processes. Trained as a playwright, Nicklin moved into interactive practices after a PhD in the field, has run a mid-sized indie studio, and has contributed.

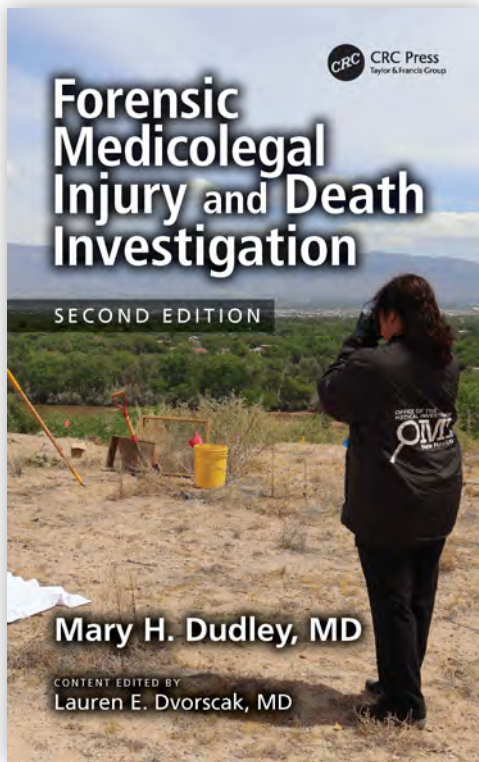
She wrote this book for you.

Focusing on the independent videogames sector, this second edition of *Writing for Games* offers resources for communication, collaboration, reflection, and advocacy, inviting the reader to situate their practice in a centuries-long heritage of storytelling, as well as considering the material affordances of videogames and the practical realities of working in game development processes.

Structured into three parts, **Theory** considers the craft of both games and writing from a theoretical perspective, covering vocabulary for both game and story practices. **Case Studies** uses three specific game case studies to explore the theory explored in Part I, and seven in-depth interviews with well-known game writers excavating their craft. The **Practical Workbook** offers a series of provocations, tools, and exercises that gives the reader the means to refine and develop their writing, not just for now, but as a part of a lifelong practice.

The updated new edition adds the in-depth interview section and also contains brand new material on writing for and within genre, on how to be a good collaborator, a section on the problem of using AI/LLM in your practice, and a new introduction.

Writing for Games: Theory and Practice (Second Edition) is an approachable and entry-level text for anyone interested in the craft of writing for videogames.



Forensic Medicolegal Injury and Death Investigation

2nd Edition

Mary H. Dudley, M.D.

October 2026

ISBN: 9781032885964

312 Pages • 9 B/W Illustrations • 122 Color Illustrations

Subject: Forensic Science

www.routledge.com/9781032885964



Mary H. Dudley MD, MSN

is former Chief Medical Examiner for Jackson County, Kansas City, MO. She also served as Chief Medical Examiner, Director of Forensic Science Laboratories, and District Coroner for Sedgwick County, Wichita, KS, and Medical Examiner for Maricopa County, Phoenix, AZ. Board certified in anatomic and forensic pathology, she completed pathology residency at Penrose Hospital and fellowship in forensic pathology at the University of New Mexico.

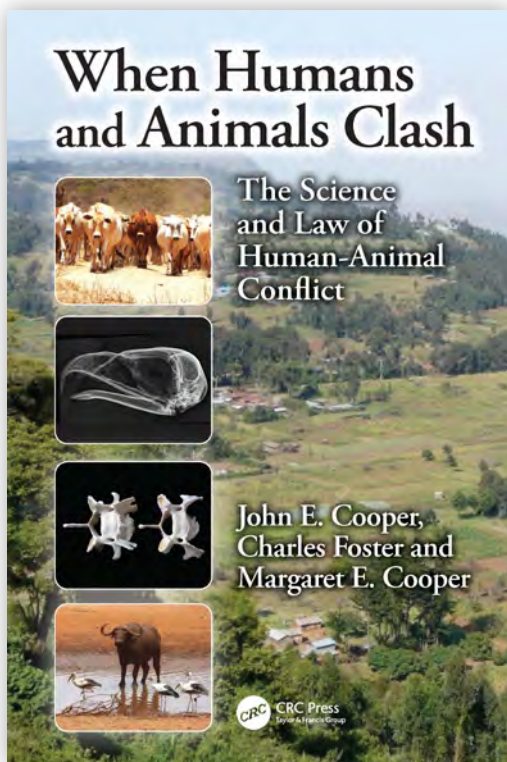
Dr. Dudley founded the first Forensic Nursing Certificate Program (1994) and Forensic Medical Investigation Course (1996). She is a fellow of the National Association of Medical Examiners and American Academy of Forensic Sciences. As a Disaster Mortuary Operations Response Team member, she ran morgue operations for major disasters including Hurricane Katrina and the Joplin tornado.

She received the CRC Press / Taylor Francis Group Lifetime Achievement Award at the 2020 American Academy of Forensic Sciences meeting.

Forensic Medicolegal Injury and Death 2nd edition provides an introduction to forensic science and coverage of injury patterns, natural disease, suicidal deaths, accidental trauma, child injury and fatalities, elder deaths, domestic violence, and mass fatality.

This revised second edition updates all sections and chapters using current references and resources, with contributions from forensic experts who bring their experiences and perspectives to the discussions and key case studies. Illustrative tables and photos have been added to the chapters, as well as the incorporation of the forensic investigator role specific to each category of injury and death covered. The chapters on specific types of injury include updated methodology, technology, current standards and best practices in forensic investigation. The inclusion of case studies pulls together the application of information used in the investigation of actual forensic cases. Other improvements include: appendices on investigator report writing, preliminary reports of death, a death investigator supply list, information on vicarious trauma, and an appendix regarding witness testimony.

Bringing together the expertise of experienced forensic scientists, forensic pathologists, and medicolegal investigators, *Forensic Medicolegal Injury and Death Investigation, 2nd edition* is an invaluable reference for anyone who has direct contact with death, crime, and the medicolegal system, including nurses, physicians, attorneys, death investigators, forensic pathologists, and police detectives.



When Humans and Animals Clash

The Science and Law of Human-Animal Conflict

John E. Cooper, Charles Foster, and Margaret E. Cooper

December 2026

ISBN: 9780367550578

432 Pages • 20 B/W Illustrations • 229 Color Illustrations

Subject: Environmental Science

www.routledge.com/9780367550578



Charles Foster

is Fellow of Exeter College, Oxford, member of Oxford's Law Faculty, practicing barrister, and qualified veterinary surgeon. His books include *New York Times* bestseller *Being a Beast* (2016), which won the Ig Nobel Prize for Biology. Complete publications at www.charlesfoster.co.uk.



John E. Cooper

is a veterinary surgeon, British and European Specialist in Veterinary Pathology, and Diplomate of the European College of Zoological Medicine, working with wildlife and exotic species. He has authored many scientific papers and books, including *Wildlife Forensic Investigation* and *Gorilla Pathology and Health*.



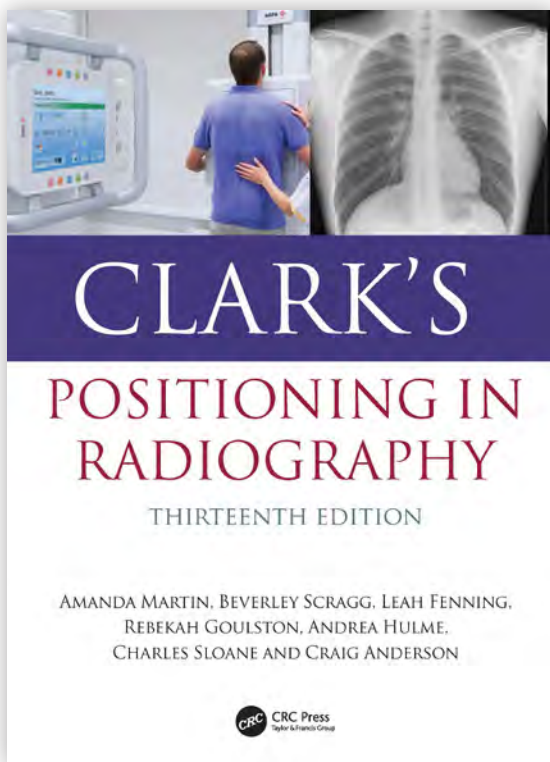
Margaret E. Cooper

is a British solicitor who has taught and published on animal and conservation law. She promotes an interdisciplinary approach to veterinary education, wildlife conservation, and forensic science. In 2019, she was elected Honorary Fellow of both the Faculty of Forensic & Legal Medicine and Royal College of Pathologists.

When humans and animals clash there is often physical, economic, political and sociological damage due to creeping urbanisation, agriculture, climate change, war, political turbulence and economic migration.

The causes of human-animal conflict are complex and multifactorial. This book is a compendium of advice about how to identify the perpetrators, allocate blame and avoid wrongful allegations, address the causes, assess compensation and consider other forms of reparation, make legal and ethical judgments, and formulate policy. It draws on hard-won experience in many domains, including conservation, medicine, pathology, law, and moral philosophy. This is a comprehensive guide for all those confronted by human-animal conflict - practitioners of veterinary and human medicine, policy-makers, wildlife and community managers, administrators and farmers.

There is a vast, sprawling literature on human-animal conflict: here it is, distilled.



Clark's Positioning in Radiography

14th Edition

Amanda Martin, Beverley Scragg, Leah Fenning, Rebekah Goulston, Andrea Hulme, Charles Sloane, and Craig Anderson

September 2026
ISBN: 9781041246961
606 Pages • 468 Color Illustrations
Subject: Specialist Medicine / Radiography
www.routledge.com/9781041246961

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Independent Radiography
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Beverley Scragg

Lecturer, University of Salford,
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Lead Radiographer, Royal
Manchester Children's Hospital,
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Charles Sloane

Principal Lecturer, Department
of Medical Sciences, University
of Cumbria, Lancashire, UK.

Craig Anderson

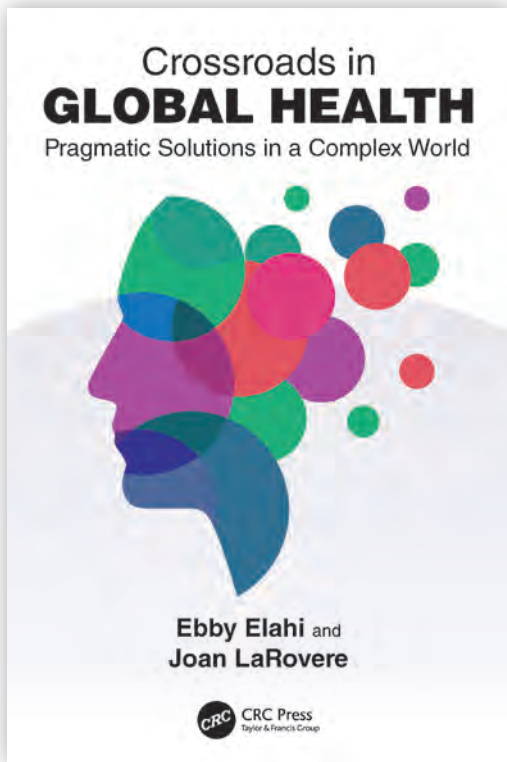
Clinical Tutor and Reporting
Radiographer, Furness General
Hospital, Cumbria, UK.

First published in 1939, *Clark's Positioning in Radiography* is the preeminent text on radiographic positioning technique. The fourteenth edition retains its clear, easy-to-follow structure while updating content to align with current radiographic standards and modern clinical practice.

Each chapter includes comprehensive technique descriptors, correction tips, and basic image evaluation guidance, supported by high-quality, full-color positioning photographs, digital images, and illustrations. These enhancements help radiographers identify how suboptimal technique affects diagnostic outcomes. A new chapter outlines critical pathologies requiring escalation. Community radiography is included, highlighting how emerging technologies deliver accessible diagnostic imaging closer to patients' homes. Artificial intelligence and dark field radiography are also introduced.

By integrating evidence-based guidelines and real-world experience, the book provides practical guidance empowering radiographers to achieve optimal imaging outcomes while prioritizing patient safety and comfort. This edition updates established techniques and terminology while reaffirming fundamental professional values—compassion, precision, and commitment to continuous improvement in patient care.

Clark's Positioning in Radiography remains the definitive work for radiography students, educators, practicing radiographers, and trainee radiologists.



Crossroads in Global Health

Pragmatic Solutions in a Complex World
Ebby Elahi, and Joan LaRovere

November 2026
ISBN: 9781032417684
218 Pages • 1 B/W Illustrations • 18 Color Illustrations
Subject: General Medicine
www.routledge.com/9781032417684



Ebby Elahi

is an oculofacial surgeon and Clinical Professor of Ophthalmology, Otolaryngology, and Environmental Medicine at the Icahn School of Medicine at Mount Sinai. He completed his residency and subspecialty training at Mount Sinai and holds an MBA from Columbia University. As Director of Fifth Avenue Associates in New York City, he maintains both clinical practice and academic commitments.



Joan LaRovere

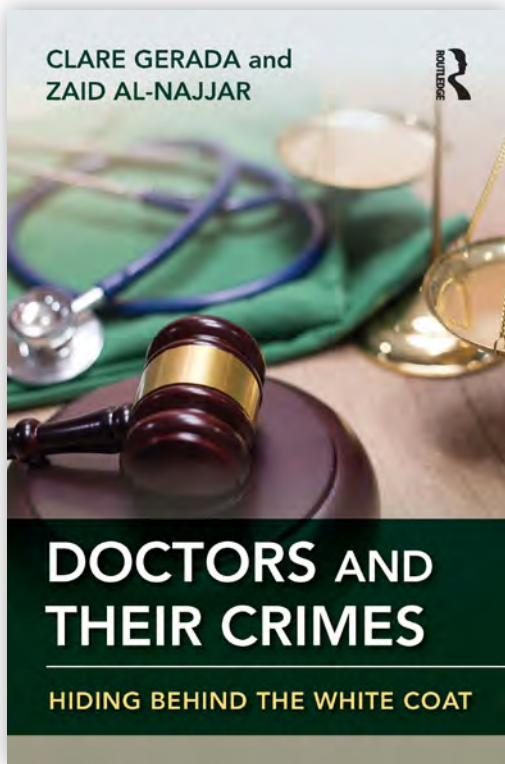
is a pediatric cardiac intensivist at Boston Children's Hospital, Assistant Professor of Pediatrics at Harvard Medical School, and currently serves as Senior Vice President and Interim Chief Medical Officer at Boston Children's Hospital.

This accessible and thought-provoking book offers a critical exploration of global health philanthropy, blending personal narrative with rigorous examination of the field's challenges and opportunities. Grounded in decades of experience, *Crossroads in Global Health* reflects on medicine's transformative power, the complexities of global health engagement, and the enduring impulse to alleviate suffering. The authors examine tensions between short-term relief and durable system change, showing how reframing global health as a data-driven marketplace can better match resources to need and turn goodwill into measurable impact.

KEY FEATURES:

- Explores the history, evolution, and critiques of global health philanthropy
- Examines needs, resources, logistics, incentives, and institutional structures
- Proposes innovative data and technology approaches for efficiency and accountability
- Balances systemic solutions with the moral imperative of immediate care

An essential resource for medical practitioners, academics, and nonprofit, public, and private sector professionals seeking meaningful global health impact.



Doctors and Their Crimes

Hiding Behind the White Coat

Clare Gerada, and Zaid Al-Najjar

October 2026
ISBN: 9781041318613
220 Pages
Subject: Medical & Healthcare Law
www.routledge.com/9781041318613



Baroness
Clare Gerada
MBE FRCP FRCGP
MRCPsych

is a cross-bench peer in the House of Lords and a practising GP in South London, UK.



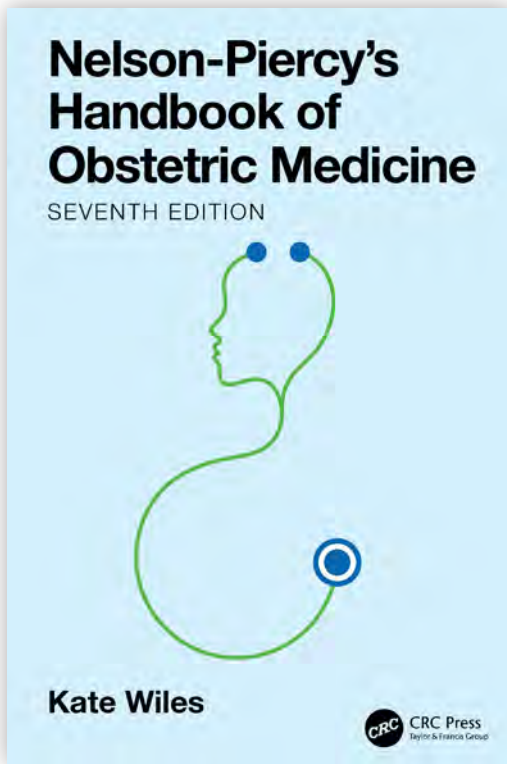
Dr **Zaid Al-Najjar**

is a GP and Medical Director at NHS Practitioner Health, London, UK.

Doctors and Their Crimes is a compelling and meticulously researched exploration of doctors who commit criminal acts. Written by two experienced general practitioners, the book examines high-profile cases of medical malpractice, fraud, manslaughter, sexual misconduct, and abuse of power. Combining forensic analysis with professional insight, it reveals how these crimes unfold within trusted healthcare structures where authority and access can be misused.

Drawing on real-world cases and clinical experience, the book examines ethical dilemmas, legal consequences, and societal impact of these betrayals. It explores how systemic failures within healthcare and legal frameworks enable such crimes, while addressing sensitive issues like racism, justice, and professional accountability. Through expert analysis, it provides nuanced understanding of pressures and vulnerabilities contributing to these breaches.

Going beyond individual stories, the book considers wider consequences including impacts on public trust, healthcare policy, and the medicine-law relationship. By confronting medicine's darkest moments, it sheds light on systemic failures and pathways to restoring trust. An essential resource for healthcare professionals, academics, and general readers.



Nelson-Piercy's Handbook of Obstetric Medicine

7th Edition

Kate Wiles

August 2026
ISBN: 9781032565828
446 Pages • 13 Color Illustrations
Subject: Specialist Medicine
www.routledge.com/9781032565828



Kate Wiles

PhD MRCP

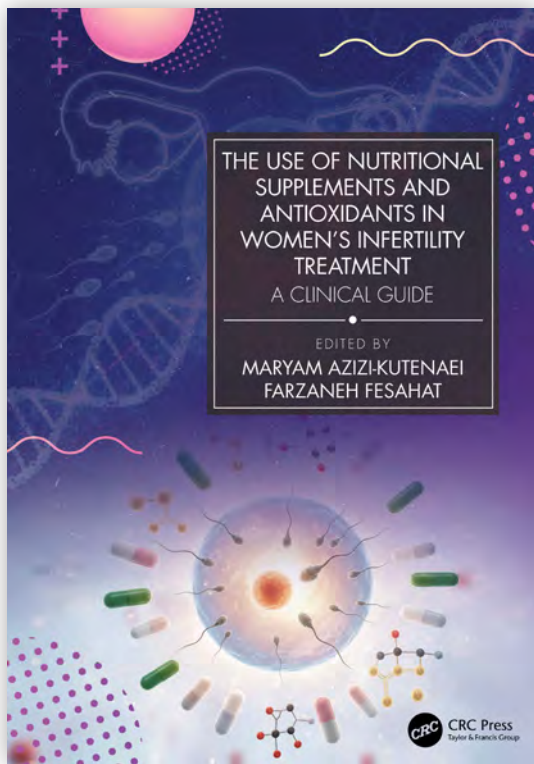
Consultant Obstetric Physician,
Barts Health NHS Trust, London, UK

Honorary Senior Lecturer, Wolfson
Institute of Population Health,
Queen Mary University of London,
UK

This new edition of a well-established reference handbook remains an essential on-the-spot guide for obstetricians, physicians, general practitioners, and midwives in both practice and training; it has been updated throughout, with new material on cancer in pregnancy, bariatric surgery, sepsis, and the use of emerging drugs including biologics.

KEY FEATURES:

- Guides the reader through the important points about diagnosis, tests, procedures, and management of conditions encountered in pregnancy
- Supports obstetricians, physicians, general practitioners, and midwives in their practice
- Presents the relevant information in a concise and straightforward format



The Use of Nutritional Supplements and Antioxidants in Women's Infertility Treatment

A Clinical Guide

Edited by Maryam Azizi-Kutenaeei,
and Farzaneh Fesahat

October 2026

ISBN: 9781041235521

184 Pages • 14 B/W Illustrations

Subject: Clinical Nutrition

www.routledge.com/9781041235521



**Maryam
Azizi-Kutenaeei**
M.D, Ph.D

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Center, Hormozgan University of
Medical Sciences, Bandar Abbas,
Iran

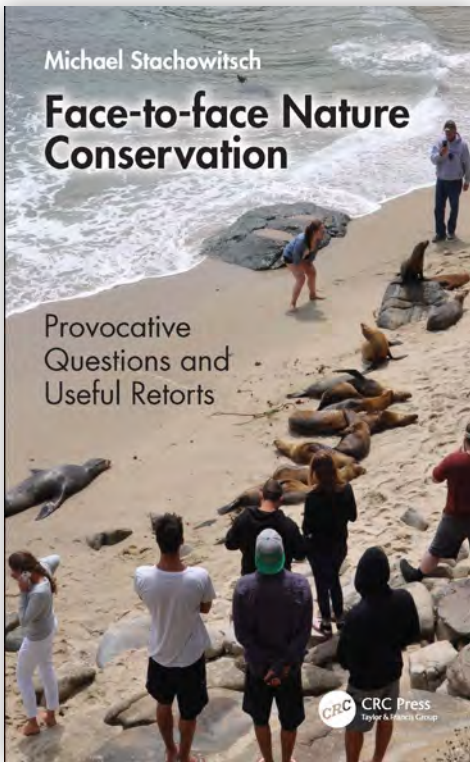


Farzaneh Fesahat
Ph.D

Reproductive Immunology
Research Center, Shahid Sadoughi
University of Medical Sciences,
Yazd, Iran

In recent years, nutritional supplements and antioxidants have been increasingly considered as adjuncts in the management of female infertility. However, the scientific evidence supporting their use remains heterogeneous, and clinical decision-making in this area often lacks clear, evidence-informed guidance. This edited volume aims to provide a clinically oriented overview of the use of nutritional supplements and antioxidants in the treatment of women's infertility.

Clinicians, reproductive health specialists, and researchers who are involved in the care of women with infertility will welcome this structured, evidence-based overview of nutritional and antioxidant interventions within a clinical framework.



Face-to-face Nature Conservation

Provocative Questions and Useful Retorts
Michael Stachowitsch

August 2026
ISBN: 9781041280484
230 Pages • 31 Color Illustrations
Subject: Environmental Science
www.routledge.com/9781041280484



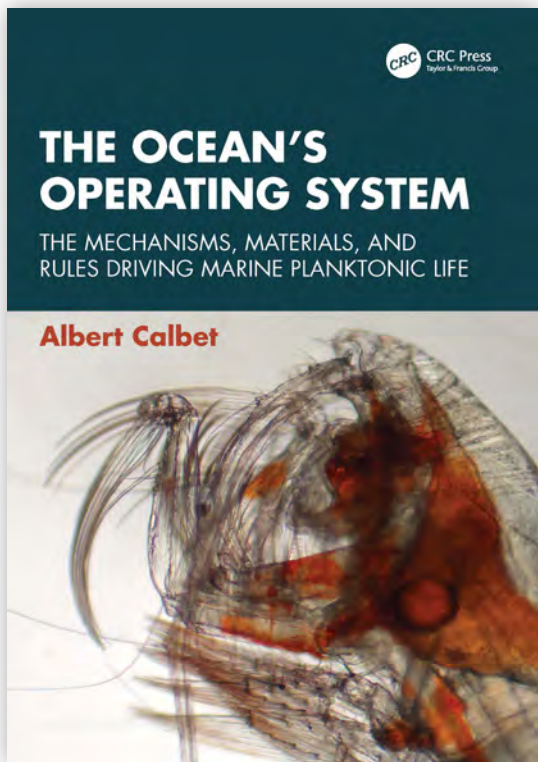
Michael Stachowitsch

is Senior Lecturer at the University of Vienna (Department of Functional and Evolutionary Ecology/Department of Paleontology). He has authored over 60 scientific publications on benthic marine ecology and two books: *The Invertebrates: An Illustrated Glossary* and *The Beachcomber's Guide to Marine Debris*. He lectures on marine pollution and endangered species management, with long-term involvement in sea turtle conservation. He serves as President of the Society for Science and Research, Vienna Aqua Terra Zoo (Haus des Meeres), and Austrian representative at the International Whaling Commission.

Academic training often leaves students poorly prepared for what they actually encounter in the field, where bridging the distance to the general public in matters related to wildlife and the status of our planet can pose a real challenge. The increasing disconnect between nature and an often skeptical or misguided public means that many people have a poor understanding of how to behave in the great outdoors and take a bewildered or even confrontational stance against those dedicated to nature conservation and species protection. Managing nature has simply become increasingly synonymous with managing people.

This primer equips practitioners – teachers, students, researchers, citizen scientists, park rangers and guides, zoo staff, and volunteers – for what they can expect to hear while going about their business. It provides a set of concise answers to over 200 questions or assertions arranged in 20 headings covering major ecosystems and their inhabitants, natural history institutions, and various human perspectives and activities. You'll never again be caught off guard, stumped, or flustered.

A dash of humor and a twinkle in the eye maximizes the chances that those on the other side of the proverbial fence will shake your hand and urge you to keep up the good work. No team should gear up for work without a copy of this book.



The Ocean's Operating System

The Mechanisms, Materials, and Rules Driving Marine Planktonic Life

Albert Calbet

July 2026
ISBN: 9781041271826
170 Pages • 32 Color Illustrations
Subject: Biodiversity
www.routledge.com/9781041271826



Albert Calbet

is a marine scientist at the Institute of Marine Sciences (ICM-CSIC) in Barcelona. His research focuses on the ecology and ecophysiology of micro- and mesozooplankton, with influential work on the role of microzooplankton in marine food webs. He earned a Ph.D. in Marine Sciences from ICM-CSIC in 1997 and completed postdoctoral training at the University of Hawai'i at Mānoa. At ICM-CSIC, he has also served in leadership roles, including Deputy Director. Calbet has published over 130 peer-reviewed papers, contributed books and book chapters, and frequently presents at international conferences. He teaches and mentors students across undergraduate, master's, and doctoral levels, reviews for funding agencies, serves on editorial boards, and actively engages in public outreach through websites, social media, and popular-science books writing.

This book is a mechanism-first guide to how the sea actually works. Instead of lists of species and case studies, it teaches the rules—light, viscosity, turbulence, temperature, oxygen, pressure, and elemental budgets—and the devices organisms use to play by them: filters and houses, pellets and gels, pigments and transporters, and migrations and dormancy. You will learn to read edges and thin layers (microlayer, thermoclines, deep chlorophyll maximums, oxygen minimum zone rims, and submesoscale fronts), to see how carbon is routed—recycled aloft or exported at depth—by mineral ballast, gelatinous packaging, and the active pump of diel migrants. Climate change and acidification appear where they truly act (on viscosity, oxygen margins, and saturation horizons), while molecular and genomic ecology grounds traits in genes, transcripts, proteins, and metabolites. Throughout, the emphasis is on rate coupling, clean inference, and portable field signatures—size spectra, pellet fall speeds, acoustic and optical cues—you can test at sea.

Written in clear, quantitative prose with only the math the argument needs, *The Ocean's Operating System: The Mechanisms, Materials, and Rules Driving Marine Planktonic Life* equips researchers, advanced students, modelers, and managers to move from a handful of measurements (light profiles, microstructure, temperature salinity, simple optics and chemistry) to community strategies, carbon routing, and flux. If you want a transferable toolkit—one you can carry from shelf to gyre, from polar ice to urban plumes—to predict “who will win, what will happen, and why,” this is your field manual for reading, and using, the code that runs the ocean.

TEXTBOOK • 4th Edition

Chemical Engineering Fluid Mechanics



Ron Darby, Texas A&M University, College Station, TX and
Raj P. Chhabra, Dept of Chem Eng, Transilvania University of Medicine and Pharmacy, Cluj-Napoca, Romania

Revised and expanded, the Fourth Edition of *Chemical Engineering Fluid Mechanics* continues to provide a balanced treatment of the basics and applications the practicing chemical engineer needs to know. With the emphasis on problem solving, the book demonstrates how to make approximations and solve complex fluid mechanics problems. It features a new chapter on Differential Mass and Momentum Balances, discussing the differential forms of continuity and momentum (Navier-Stokes) equations. Aimed at chemical engineering students taking

applied fluid dynamics courses, this textbook also serves as a valuable reference for researchers and professional engineers.

CRC Press

Market: Chemical Engineering

July 2026: 254x178: 576pp: 187 illus, 187 halftones

Hb: 978-1-032-77706-1: £110.00

★ For full contents and more information, visit: www.routledge.com/9781032777061

TEXTBOOK

Chemical Engineering

A First Year Study Guide



Thomas Rodgers

This textbook introduces new chemical engineering students to the key subjects taught in most undergraduate Chemical Engineering degrees: Process Engineering Fundamentals, Chemical Thermodynamics, Process Fluid Flow, Process Heat Transfer, and Chemical Reaction Engineering. Rather than providing total coverage of all these topics, it explains the material in an accessible way for students new to the subject, allowing them to understand why these topics are important and to ready them for more advanced courses they will encounter later. Written for students embarking on their Chemical Engineering degree, this textbook explains core chemical engineering topics in an approachable way.

CRC Press

Market: Chemical Engineering

August 2026: 254x178: 784pp: 221 illus, 221 halftones

Pb: 978-1-032-64886-6: £52.99

★ For full contents and more information, visit: www.routledge.com/9781032648866

Dust Explosions in the Pharmaceutical and Food Industries



Sabrina Copelli and **Davide Ballinari**

This book provides a rigorous exploration of dust explosion hazards, with a focus on pharmaceutical and food industries. It examines the fundamental and applied aspects of dust explosion safety, integrating key concepts from physical chemistry, engineering, and risk management fields. By combining the latest knowledge and addressing both theoretical and practical aspects, this book serves as a resource for a wide range of readers, including safety professionals, engineers, researchers, and students. It will not only equip readers with the tools to assess and mitigate explosion risks but also aim to inspire ongoing research and innovation in this critical area of industrial safety.

CRC Press

Market: Chemical and Process Engineering

August 2026: 234x156: 266pp: 71 illus, 36 halftones, 35 line drawings

Hb: 978-1-041-08425-9: £130.00

★ For full contents and more information, visit: www.routledge.com/9781041084259

Electrochemical Energy Storage for the Grid



Edited by **Min Yang**, **Wanzhong Shen** and **Junbo Hou**

While renewable energy is vital to ensuring a sustainable power grid, it is highly variable and unpredictable and electricity generation from renewables is usually small and distributed compared to traditional power generation. Energy storage is attracting attention as an effective approach to addressing the variable nature of renewable energy, as its implementation can improve grid stability, reliability, and resilience. This book focuses on fundamentals, advances, and applications of electrochemical energy storage for the grid. It is aimed at researchers and practicing engineers in the energy, chemical, and related engineering disciplines.

CRC Press

Market: Chemical Engineering/Energy Engineering

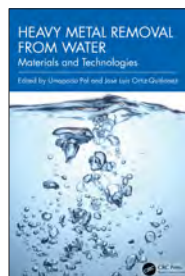
September 2026: 234x156: 282pp: 116 illus, 116 halftones

Hb: 978-1-032-79525-6: £130.00

★ For full contents and more information, visit: www.routledge.com/9781032795256

Heavy Metal Removal from Water

Materials and Technologies



Edited by **Umapada Pal**, Autonomous University of Puebla, Mexico and **Jose Luis Ortiz-Quinonez**, Metropolitan Autonomous University, Mexico

This book explores metal ion removal processes and cutting-edge technologies, with a focus on membranes, photocatalysts, and various adsorbents. It covers the principles and practical intricacies underlying membrane-based separation processes, offering readers a comprehensive understanding of their applications and nuances. The book also examines alternative approaches utilizing adsorbents and photocatalysts, comparing their advantages and drawbacks against conventional membrane-based methods.

This text is aimed at various stakeholders, including researchers,

students, practitioners, and policymakers, committed to tackling the pressing challenges posed by heavy metal contamination.

CRC Press

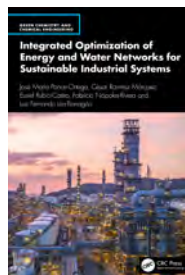
Market: Environmental and Materials Engineering

August 2026: 234x156: 234pp: 56 illus, 11 halftones, 45 line drawings

Hb: 978-1-032-98519-0: £120.00

★ For full contents and more information, visit: www.routledge.com/9781032985190

Integrated Optimization of Energy and Water Networks for Sustainable Industrial Systems



José María Ponce-Ortega, Michoacan Uni of Saint Nicholas of Hidalgo, Mexico, **César Ramírez Márquez**, UMSNH, Mexico, **Eusiel Rubio-Castro**, **Fabricio Nápoles-Rivera** and **Luis Fernando Lira-Barragán**

Series: Green Chemistry and Chemical Engineering

This book addresses the integrated optimization of heat and water networks in industrial systems, with a focus on advancing sustainability, resource efficiency, and process performance. It brings together state-of-the-art methodologies and practical strategies for designing, retrofitting, and managing thermal and water subsystems across diverse industrial contexts.

CRC Press

Market: Chemical Engineering

June 2026: 234x156: 418pp: 151 illus, 151 line drawings

Hb: 978-1-041-15459-4: £225.00

★ For full contents and more information, visit: www.routledge.com/9781041154594

Microbial Biorefineries

Global Innovations in Waste Beneficiation and Circular Economy Solutions



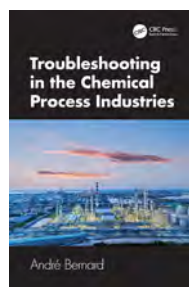
Edited by **Patrick Sekoai, Sizwe Ndlovu and Olivier Habimana**

This book showcases the role of various microbial cell factories towards waste beneficiation, highlighting both the opportunities for and barriers to the industrial implementation of these technologies. Focusing on scalable, economically viable innovations and positioning microbial cell factories as enablers of resource valorization, this book bridges policy aspirations and practical applications, offering readers in chemical, bio, and environmental engineering concrete pathways to translate circular economy concepts into industrial reality.

CRC Press
September 2026: 234x156: 264pp: 24 illus, 24 halftones
Hb: 978-1-041-25108-8: **£140.00**

★ For full contents and more information, visit: www.routledge.com/9781041251088

Troubleshooting in the Chemical Process Industries



André Bernard

This book provides readers with practical insights into problem-solving within the Chemical Process Industry from a process engineering perspective. It connects fundamental chemical engineering principles, emphasizes the importance of data collection and analysis, and demonstrates how to identify root causes and resolve operational challenges. It underscores the critical role of troubleshooting in addressing abnormal process behaviors that jeopardize or hinder the achievement of key objectives. Through this book process engineers are given the know-how to solve real-world problems through sound process engineering methodologies.

CRC Press
Market: Chemical Engineering
August 2026: 234x156: 310pp: 83 illus, 83 halftones
Hb: 978-1-032-58342-6: **£130.00**

★ For full contents and more information, visit: www.routledge.com/9781032583426

A Design Guideline on the Use of Repeated Lightweight Deflectometer Test Data in Mechanistic-Empirical Pavement Design



Dina K. Kuttah

This book presents a modern approach to evaluating subgrade and base layer performance in road construction using the Repeated Lightweight Deflectometer (RLWD). It explains how rapid in-situ measurements of stiffness and deformation can improve pavement design, providing a practical alternative to traditional laboratory testing methods. The book is intended for pavement engineers, geotechnical engineers, transportation researchers, and infrastructure consultants involved in road design and construction. It will also serve graduate students and university instructors in civil engineering, as well as public-sector agencies responsible for infrastructure management and maintenance.

CRC Press
Market: Civil Engineering
August 2026: 254x178: 128pp: 81 illus, 28 halftones, 53 line drawings
Pb: 978-1-041-22574-4: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041225744

Active In-Wheel Suspension System Design for On-Road Vehicles



Do Trong Tu

Active In-Wheel Suspension System Design for On-Road Vehicles presents a comprehensive and systematic design and control framework for an Active In-Wheel Suspension System (IWASS), a transformative technology for modern on-road vehicles. This book addresses the fundamental challenge of integrating a high-performance active suspension actuator directly within the confined space of a vehicle's wheel.

CRC Press
Market: Engineering - Mechanical
August 2026: 234x156: 286pp: 128 illus, 128 line drawings
Hb: 978-1-041-31516-2: **£130.00**

★ For full contents and more information, visit: www.routledge.com/9781041315162

TEXTBOOK • 4th Edition

Advanced Heat Transfer



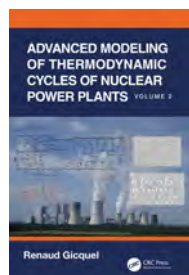
Greg F. Naterer

Advanced Heat Transfer provides a single source of technical content for the prediction, solution, and analysis of advanced heat transfer problems, including conduction, convection, radiation and phase change, and chemically reactive modes of heat transfer. The book offers a comprehensive source for single and multiphase systems of heat transfer for graduate students taking courses in Advanced Heat Transfer; Multiphase Heat Transfer; Advanced Thermodynamics. With more than 20 new sections, case studies, examples, and problems, the new edition broadens the scope of thermal engineering applications, including biomedical fields, micro- and nanotechnology, and machine learning.

CRC Press
Market: Engineering - Heat Transfer
December 2026: 254x178: 616pp: 226 illus, 226 line drawings
Hb: 978-1-041-37354-4: **£110.00**
Prev. Ed Hb: 978-1-032-07247-0

★ For full contents and more information, visit: www.routledge.com/9781041373544

Advanced Modeling of Thermodynamic Cycles of Nuclear Power Plants



Renaud Gicquel, Mines ParisTech, Paris, France

This volume offers a comprehensive resource on TCNPP modeling and provides detailed studies of TCNPPs for current and emerging reactors, including Small Modular Reactors (SMRs). After covering reactor physics and operating principles, the book examines water-steam cycles using advanced tools like the pinch method and exergy balances to optimize performance. Using ThermoOptim software's systemic modeling approach, readers can accurately represent nuclear energy system peculiarities. This book will benefit mechanical, nuclear, and energy engineering researchers and graduate students in the fields of applied thermodynamics, nuclear power plants, and energy systems.

CRC Press

Market: Engineering - Thermodynamics

July 2026: 234x156: 350pp: 267 illus, 2 halftones, 265 line drawings

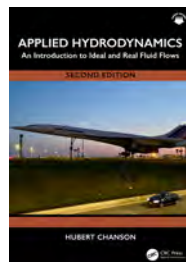
Hb: 978-1-032-99787-2: **£120.00**

★ For full contents and more information, visit: www.routledge.com/9781032997872

TEXTBOOK • 2nd Edition

Applied Hydrodynamics

An Introduction to Ideal and Real Fluid Flows



Hubert Chanson, The University of Queensland, Brisbane, Australia

This new edition textbook is a comprehensive guide to hydrodynamics and fluid dynamics, addressing phenomena encountered in everyday life and critical engineering applications across multiple disciplines. Introducing brand new photographs and figures, an additional chapter, along with expanded appendices and a comprehensive subject index, this is an exposition on the application of the fundamental principles of mechanics and thermodynamics to understand fluid flow motion, forces, and energies. The lecture material is designed as an intermediate course for senior undergraduate and postgraduate students in Civil, Environmental, Hydraulic, and Mechanical Engineering.

CRC Press

Market: Hydraulic Engineering

October 2026: 254x178: 440pp: 243 illus, 77 halftones, 166 line drawings

Pb: 978-1-041-16139-4: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041161394

TEXTBOOK • 2nd Edition

Aircraft Propulsion and Gas Turbine Engines



Ahmed F. El-Sayed, Zagazig University, Egypt

This edition exhibits major and minor changes compared with the first edition. Major changes include the addition of three new topics: namely, piston engines together with integrated propeller coverage, pumps, and rocket propulsion. Rocket propulsion has been added to serve courses that include aerospace topics as well as aircraft. The book is divided into three parts rather than two as in its first edition. The first two parts are devoted to air breathing engines, while the third part covers non-air breathing or rocket engines.

CRC Press

Market: Aerospace Engineering

July 2017: 254x178: 1476pp: 665 illus

Hb: 978-1-4665-9516-3: **£210.00**

Prev. Ed Hb: 978-0-8493-9196-5

★ For full contents and more information, visit: www.routledge.com/9781466595163

Applied Lubrication, Insulation, and Cooling Fluids for Electrical Power Systems



Michael D. Holloway

Applied Lubrication, Insulation, and Cooling Fluids for Electrical Power Systems provides evidence-based strategies for selecting, applying, and monitoring lubricants, coolants, and insulating fluids in power systems. It addresses the demands of turbines, wind drivetrains, nuclear actuators, and electrified systems, emphasizing fluid reliability as a critical factor in uptime, efficiency, and safety. This book equips professionals to reduce failures, prevent outages, and optimize hybrid and electrified assets, making it invaluable for practicing OEM, maintenance, reliability, and mechanical engineers, condition monitoring specialists, and industrial consultants.

CRC Press

Market: Engineering - Lubrication

August 2026: 234x156: 410pp: 7 illus, 7 halftones

Hb: 978-1-041-30572-9: **£130.00**

★ For full contents and more information, visit: www.routledge.com/9781041305729

Applications of AI and IoT in Geotechnical Engineering for Sustainable Infrastructure



Edited by **Vedprakash C. Maralappalle**, **Jayatheja Mukhtinutalapati**, **Bogireddy Chandra**, **Gangadhara Reddy Narala** and **Abdullah Ansari**

Artificial Intelligence (AI) and the Internet of Things (IoT) are transforming the way geotechnical engineers monitor, analyze, and manage soil-structure systems. *Applications of AI and IoT in Geotechnical Engineering for Sustainable Infrastructure* explores how these emerging digital technologies can enhance decision-making, improve infrastructure resilience, and support sustainable development in civil engineering projects.

CRC Press

Market: Geotechnical Engineering

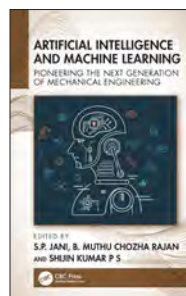
October 2026: 234x156: 356pp: 132 illus, 35 halftones, 97 line drawings

Hb: 978-1-041-19917-5: **£120.00**

★ For full contents and more information, visit: www.routledge.com/9781041199175

Artificial Intelligence and Machine Learning

Pioneering the Next Generation of Mechanical Engineering



Edited by **S.P. Jani**, MLRITM, India, **B. Muthu Chozha Rajan** and **Shijin Kumar P S**

Artificial Intelligence and Machine Learning in Mechanical Engineering explores the transformative impact of these technologies across critical domains, including design optimization, process optimization, additive manufacturing, material science, metrology, and smart materials.

CRC Press

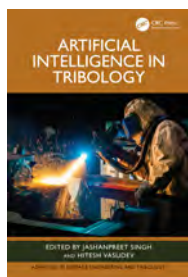
Market: Mechanical Engineering

December 2026: 234x156: 352pp: 180 illus, 26 halftones, 154 line drawings

Hb: 978-1-041-06634-7: **£130.00**

★ For full contents and more information, visit: www.routledge.com/9781041066347

Artificial Intelligence in Tribology



Edited by **Jashanpreet Singh**, Chandigarh University, India and **Hitesh Vasudev**, LPU, India

Series: *Advances in Surface Engineering and Tribology*

Artificial Intelligence in Tribology presents the use of machine learning AI, neural networks, and optimization algorithms in studying friction, wear, and lubrication. It explores the selection of materials, modeling of the tribo-system, prediction of tribological behavior, and optimization of performance across numerous systems. Case studies from various industries – such as automotive, aerospace, renewable energy, and marine engineering – highlight the transformative impact of AI in real-world scenarios. This book will interest researchers and

graduate students studying the intersection of AI and advances in surface engineering, tribology, and materials science.

CRC Press

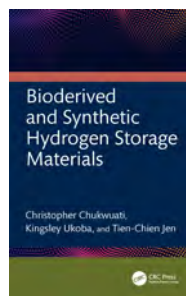
Market: Engineering - Tribology

August 2026: 234x156: 300pp: 120 illus, 27 halftones, 93 line drawings

Hb: 978-1-041-03528-2: **£115.00**

★ For full contents and more information, visit: www.routledge.com/9781041035282

Bioderived and Synthetic Hydrogen Storage Materials



Christopher Chukwuati, Kingsley Ukoba, Auckland Park Campus, South Africa and **Tien-Chien Jen**, University of Johannesburg, South Africa

Bioderived and Synthetic Hydrogen Storage Materials presents innovative approaches for developing efficient, safe, and cost-effective hydrogen storage technologies. It demonstrates how the combination of biosynthesized and engineered nanomaterials can overcome hydrogen's inherent storage challenges of low density and high diffusivity. Graduate students and researchers in materials science and energy engineering, as well as industry professionals developing sustainable energy technologies, waste valorization processes, and nanomaterials for energy systems, will find this book a useful reference.

CRC Press

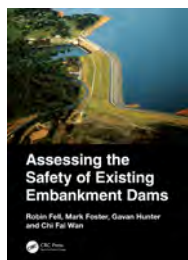
Market: Engineering - Energy

October 2026: 234x156: 336pp: 31 illus, 2 halftones, 29 line drawings

Hb: 978-1-041-23088-5: **£115.00**

★ For full contents and more information, visit: www.routledge.com/9781041230885

Assessing the Safety of Existing Embankment Dams



Robin Fell, Mark Foster, Gavan Hunter and Chi Fai Wan

This book provides in-depth analysis of dam failure mechanics alongside relevant engineering assessment methods. It provides comprehensive methods for assessing embankment dam safety across four critical failure modes: overtopping, slope instability, deformations under seismic loading, and internal erosion and piping. Assessment approaches include deterministic (standards-based), risk-enhanced deterministic, quantitative risk assessment (QRA), and simplified QRA methodologies. The book is designed to help dam owners, their consultant engineers, and engineering geologists develop defensible safety assessments and upgrade designs for existing dams.

CRC Press

Market: Dam Engineering

August 2026: 246x174: 810pp: 524 illus, 44 halftones, 480 line drawings

Hb: 978-1-032-88904-7: **£170.00**

★ For full contents and more information, visit: www.routledge.com/9781032889047

Blockchain Technology in Water Management and New Energy Economy



Edited by **Abhishek Kumar, Priya Batta, Reyes Juárez Ramírez, Angeles Quezada and Pramod Singh Rathore**

Series: *Smart Technologies for Water Engineering & Sustainability*

Blockchain Technology in Water Management and New Energy Economy explores the transformative role of blockchain in addressing two of the most pressing global challenges: efficient water resource management and the transition to a sustainable energy future. As climate change, population growth, and urbanization exert increasing pressure on natural resources, traditional systems for managing water and energy are proving inadequate.

CRC Press

Market: Civil Engineering

October 2026: 254x178: 368pp: 97 illus, 7 halftones, 90 line drawings

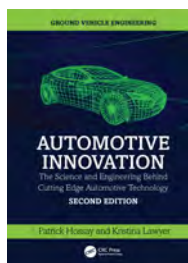
Hb: 978-1-041-15996-4: **£120.00**

★ For full contents and more information, visit: www.routledge.com/9781041159964

TEXTBOOK • 2nd Edition

Automotive Innovation

The Science and Engineering Behind Cutting Edge Automotive Technology



Patrick Hossay, Stockton University, NJ, USA and **Kristina Lawyer**

Series: *Ground Vehicle Engineering*

Automotive Innovation, Second Edition, delivers a comprehensive survey of the evolving automotive landscape, spotlighting the groundbreaking innovations and transformative technologies reshaping the industry.

CRC Press

Market: Mechanical Engineering

December 2026: 254x178: 410pp: 183 illus, 147 halftones, 36 line drawings

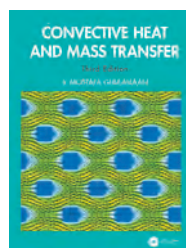
Hb: 978-1-032-95590-2: **£96.99**

Prev. Ed Hb: 978-1-138-61176-4

★ For full contents and more information, visit: www.routledge.com/9781032955902

TEXTBOOK • 3rd Edition

Convective Heat and Mass Transfer



S. Mostafa Ghiaasiaan, Georgia Tech University, Atlanta, USA

Convective Heat and Mass Transfer, Third Edition serves as the basis for a semester-level graduate course dealing with the theory and practice of convection heat and mass transfer. It examines mass transfer in a systematic way, alongside heat transfer, by taking advantage of the similarity between convective transport of heat and mass. The new edition has been updated with up-to-date coverage of flow and heat transfer in microsystems, turbulence, and diffusive transport of microparticles. This book is intended for graduate mechanical and chemical engineering students

taking a Convective Heat and Mass Transfer or Advanced Heat Transfer course.

CRC Press

Market: Engineering - Heat Transfer

December 2026: 280x210: 544pp: 184 illus, 2 halftones, 182 line drawings

Hb: 978-1-041-13032-1: **£140.00**

Prev. Ed Hb: 978-0-8153-6141-1

★ For full contents and more information, visit: www.routledge.com/9781041130321

2nd Edition

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Competence, Cognition, and Systems for Airline Pilots



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Crew Resource Management Training: Competence, Cognition, and Systems for Airline Pilots delivers an evidence-based approach to CRM that moves beyond traditional training methods to address the realities of modern aviation. The new edition expands the discussion beyond individual pilot behavior to encompass aviation as an ecosystem. Airlines, pilots, aviation industry professionals, and training organizations will benefit from insights into organizational design and alternative approaches to training that can be immediately applied to enhance safety outcomes, operational efficiency, and organizational resilience in today's rapidly evolving aviation environment.

CRC Press

Market: Engineering - Aviation

November 2026: 234x156: 352pp: 32 illus, 1 halftone, 31 line drawings

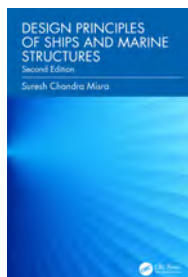
Hb: 978-1-041-25897-1: **£130.00**

Prev. Ed Hb: 978-0-367-68731-1

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2nd Edition

Design Principles of Ships and Marine Structures



Suresh Chandra Misra, Indian maritime University, India

This book details every facet of ship design and design integration including naval architecture and marine engineering applications and principles relevant to the design of various systems, advanced numerical techniques applicable to maritime design procedure at the concept design stage. Second edition of this book discusses related sustainability aspects, high speed computing, handling of big data, data communication and virtual reality. It further includes second generation stability assessment and usage of alternative fuels. This book is aimed at students and design professionals in the field of shipping, shipbuilding and offshore engineering.

CRC Press

Market: Engineering - Civil

August 2026: 234x156: 566pp: 198 illus, 7 halftones, 191 line drawings

Hb: 978-1-041-06709-2: **£170.00**

Prev. Ed Hb: 978-1-4822-5446-4

★ For full contents and more information, visit: www.routledge.com/9781041067092

TEXTBOOK • 2nd Edition

Elements of Heat Transfer



Ethirajan Rathakrishnan

This textbook serves as a comprehensive guide to heat transfer, covering both theoretical and applied aspects for undergraduate and graduate courses. It introduces fundamental principles, thermodynamics, and heat transfer processes, including conduction, convection, radiation, mass transfer, boiling, condensation, and heat exchangers. The second edition adds cryogenics, addressing modern applications like superconductors and space systems.

CRC Press

Market: Mechanical Engineering

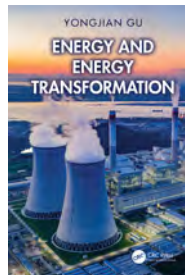
September 2026: 234x156: 534pp: 201 illus, 201 line drawings

Hb: 978-1-041-23678-8: **£120.00**

Prev. Ed Hb: 978-1-4398-7891-0

★ For full contents and more information, visit: www.routledge.com/9781041236788

Energy and Energy Transformation



Yongjian Gu, United States Merchant Marine Academy, New York

Energy and Energy Transformation thoroughly examines energy systems, encompassing the analysis, calculation, and practical applications of energy transformation, with an extensive overview of both renewable and nonrenewable energy sources. It introduces energy transfer and conversion processes and the comparison and selection of energy systems. The book is intended for professional engineers and researchers involved in the design and R&D of energy systems and energy management. It will also benefit engineering and environmental science students studying energy systems and design, energy management, and HVAC.

CRC Press

Market: Engineering - Energy

August 2026: 234x156: 582pp: 337 illus, 61 halftones, 276 line drawings

Hb: 978-1-041-13135-9: **£170.00**

★ For full contents and more information, visit: www.routledge.com/9781041131359

4th Edition

Energy Audit of Building Systems

An Engineering Approach



Moncef Krarti, University of Colorado at Boulder, USA

Series: Mechanical and Aerospace Engineering Series

Energy Audit of Building Systems, Fourth Edition addresses the critical intersection between energy efficiency and building performance optimization. It provides specialized knowledge and systematic approaches needed to evaluate existing buildings while achieving maximum energy savings and carbon-neutral operation. The new edition expands coverage to include dynamic and demand response technologies such as switchable glazing systems, phase change materials, and PV-integrated shading devices. This book will benefit building energy auditors, HVAC engineers, architects, facility managers, and students seeking specialized training in building energy management.

CRC Press

Market: Engineering - Energy

December 2026: 234x156: 680pp: 214 illus, 10 halftones, 204 line drawings

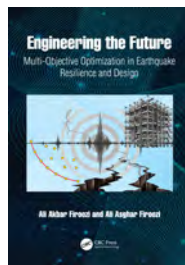
Hb: 978-1-041-27306-6: **£170.00**

Prev. Ed Hb: 978-0-367-82046-6

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Engineering the Future

Multi-Objective Optimization in Earthquake Resilience and Design



Ali Akbar Firoozi and **Ali Asghar Firoozi**

Engineering the Future: Multi-Objective Optimization in Earthquake Resilience and Design develops a rigorous, decision-oriented treatment of performance-based earthquake engineering (PBEE) by placing multi-objective optimization (MOO) at the centre of modern seismic design and risk management. This book targets structural and earthquake engineers, seismic risk analysts, and engineering researchers who seek to advance beyond traditional code-based design approaches by implementing sophisticated multi-objective optimization methods for performance-based earthquake engineering in both academic research and professional practice.

CRC Press

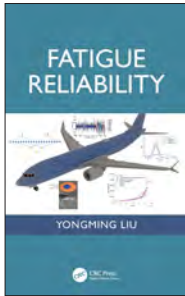
Market: Earthquake Engineering

August 2026: 254x178: 224pp: 9 illus, 1 halftone, 8 line drawings

Pb: 978-1-041-20023-9: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041200239

Fatigue Reliability



Yongming Liu, Arizona State University, USA

Fatigue Reliability revolutionizes how we predict and prevent the invisible threats posed by fatigue failure - the silent, progressive weakening of materials under repeated stress which threatens everything from aircraft and bridges to wind turbines and medical devices.

CRC Press

Market: Mechanical Engineering

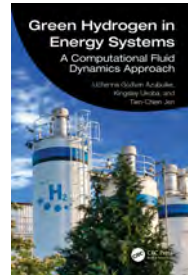
November 2026: 234x156: 448pp: 211 illus, 20 halftones, 191 line drawings

Hb: 978-1-032-39694-1: **£170.00**

★ For full contents and more information, visit: www.routledge.com/9781032396941

Green Hydrogen in Energy Systems

A Computational Fluid Dynamics Approach



Uchenna Godwin Azubuike, Kingsley Ukoba, Auckland Park Campus, South Africa and **Tien-Chien Jen**, University of Johannesburg, South Africa

Green Hydrogen in Energy Systems provides a comprehensive exploration of how CFD modeling techniques are revolutionizing the development, optimization, and safety analysis of green hydrogen technologies. It addresses the critical role hydrogen plays in the global energy transition while offering practical analytical frameworks. Through detailed CFD simulations, the book demonstrates how computational modeling can solve complex fluid dynamics challenges unique to hydrogen systems. This book serves as a reference for graduate students,

researchers, and energy practitioners focused on hydrogen technology, fluid mechanics, renewable energy systems, and computational modeling.

CRC Press

Market: Engineering - Energy

September 2026: 234x156: 250pp: 83 illus, 9 halftones, 74 line drawings

Hb: 978-1-041-21440-3: **£115.00**

★ For full contents and more information, visit: www.routledge.com/9781041214403

TEXTBOOK

Fundamentals of Explosive Ordnance



Edited by **Paul J. Hazell**, The University of New South Wales, Australia and **Nicholas Kanizaj**

Fundamentals of Explosive Ordnance covers the fundamental science and engineering concepts behind the design, operation, safety, and effects of explosive ordnance. It not only covers conventional weapon systems, but also those of improvised explosive devices and hypersonic weapons systems.

CRC Press

Market: Mechanical Engineering

September 2026: 254x178: 511pp: 237 illus, 69 halftones, 168 line drawings

Hb: 978-1-032-86324-5: **£115.00**

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Innovative Tunnel Engineering

Inventing and Implementing Technology in Design, Construction, and Contracting



Harald Wagner

This book aims to help professionals in public and private organizations to easily understand recent technological and practical developments in advanced tunnelling technologies, by uniting technologies and geomechanics principles of 'conventional tunnelling' (also known as NATM - New Austrian Tunnelling Method) with principles of 'mechanized tunnelling' (TBM). It offers a cross section of innovative, dynamic underground infrastructure developments, documenting strategies, and case studies.

CRC Press

Market: Tunnelling

October 2026: 234x156: 200pp: 61 illus, 53 halftones, 8 line drawings

Hb: 978-1-032-65029-6: **£86.99**

★ For full contents and more information, visit: www.routledge.com/9781032650296

3rd Edition

Generation of Surfaces

Kinematic Geometry of Surface Machining



Stephen P. Radzevich, APEX Tool Group, LLC, and EATON Corporation, USA

Generation of Surfaces: Kinematic Geometry of Surface Machining, Third Edition, addresses the critical challenge of optimizing sculptured part surface machining on multiaxis numerical control (NC) machines while minimizing costs.

CRC Press

Market: Engineering - Mechanical

September 2026: 254x178: 648pp: 275 illus, 5 halftones, 270 line drawings

Hb: 978-1-041-30494-4: **£175.00**

★ For full contents and more information, visit: www.routledge.com/9781041304944

Integrated Air and Missile Defense Strategies

Keeping the Skies Safe



Edited by **Adam Kawalec**, **Witold Bużantowicz** and **Marta Walenczykowska**

Integrated Air and Missile Defense Strategies: Keeping the Skies Safe presents a comprehensive examination of the unique challenges facing NATO's Eastern flank countries and proposes innovative approaches for developing effective regional defense systems. It demonstrates how integrating command systems with diverse weapon platforms can address limited response times and operational depth. This book is intended for engineers, military professionals, policy experts, and government officials who work in the area of air and missile defense. It will also benefit graduate students researching in the areas of modeling and computer simulation of IAMD components.

CRC Press

Market: Engineering - Aerospace

July 2026: 234x156: 192pp: 93 illus, 42 halftones, 51 line drawings

Hb: 978-1-041-23730-3: **£115.00**

★ For full contents and more information, visit: www.routledge.com/9781041237303

Integrated Smart Technologies for Sustainable Water Systems Using Computer Applications



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Series: *Smart Technologies for Water Engineering & Sustainability*

This book presents a comprehensive exploration of how cutting-edge computational technologies are revolutionizing water resource management. It demonstrates the integration of AI, IoT systems, and emerging digital technologies to address critical challenges in hydrology, hydraulics, water quality, and smart infrastructure development. It is designed for researchers, industry professionals, software developers, educators, and students specializing in water resource management and sustainable

technology applications. The content balances foundational insights with advanced methodologies, making it equally valuable for newcomers and experienced practitioners.

CRC Press

Market: Civil Engineering

August 2026: 246x174: 274pp: 94 illus, 94 line drawings

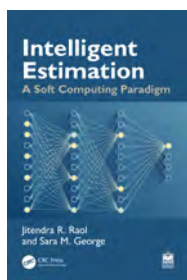
Hb: 978-1-041-19931-1: **£96.99**

★ For full contents and more information, visit: www.routledge.com/9781041199311

TEXTBOOK

Intelligent Estimation

A Soft Computing Paradigm



Jitendra R. Raol, National Aerospace Laboratories (CSIR-NAL), India and **Sara M. George**, Ramaiah Inst of Tech, India

Intelligent Estimation presents a unified treatment for a new paradigm of soft computing with AI-based approaches as applicable to system identification, parameter estimation, and filtering: Neuro-Fuzzy-GA Based System Identification, Parameter Estimation, and Filtering, known succinctly as Intelligent Estimation (IE). It discusses a modeling-control-system approach with numerous practical applications in solving mathematical modeling problems for industrial and aerospace engineering systems. This book is intended for upper-level undergraduate

and graduate engineering students studying soft computing, intelligent systems, and advanced control systems in industry applications.

CRC Press

Market: Engineering - Systems

July 2026: 234x156: 330pp: 54 illus, 2 halftones, 52 line drawings

Hb: 978-1-041-01823-0: **£115.00**

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TEXTBOOK • 2nd Edition

Introduction to Product Design and Development for Engineers and Scientists



Ali Jamnia and **Ali Jamnia**

Introduction to Product Design and Development for Engineers and Scientists provides guidelines and best practices for the design, development, and evaluation of engineered products. Created to serve fourth year undergraduate students in Engineering Design modules with a required project, the text covers the entire product design process and product life-cycle, from the initial concept to the design and development stages, and through to product testing, design documentation, manufacturability, marketing, and sustainability. Reflecting the author's long career as a design engineer, this text will also serve as a practical guide for students working on their capstone design projects.

CRC Press

Market: Mechanical Engineering

September 2026: 254x178: 508pp: 204 illus, 2 halftones, 202 line drawings

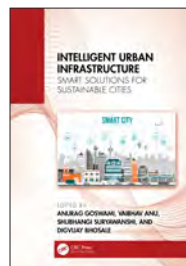
Hb: 978-1-032-89521-5: **£105.00**

Prev. Ed Hb: 978-1-138-55421-4

★ For full contents and more information, visit: www.routledge.com/9781032895215

Intelligent Urban Infrastructure

Smart Solutions for Sustainable Cities



Edited by **Anurag Goswami, Vaibhav Anu, Shubhangi Suryawanshi** and **Digvijay Bhosale**

Intelligent Urban Infrastructure: Smart Solutions for Sustainable Cities explores how emerging digital technologies are reshaping the design, management, and sustainability of modern cities. This comprehensive volume examines the integration of Artificial Intelligence (AI), Internet of Things (IoT), data analytics, and intelligent automation into critical urban systems such as transportation, energy, water management, healthcare, and public safety. It presents a forward-looking perspective on how infrastructure can evolve to become more adaptive, resilient, and environmentally responsible. Designed

for researchers, postgraduate students, urban planners, engineers, policymakers, and industry professionals, this book serves as a valuable reference for those seeking to understand and implement intelligent infrastructure solutions that enable smarter, greener, and more liveable cities worldwide.

CRC Press

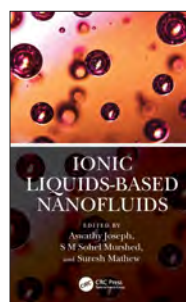
Market: Civil Engineering

September 2026: 254x178: 216pp: 54 illus, 23 halftones, 31 line drawings

Hb: 978-1-041-24367-0: **£175.00**

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Ionic Liquids-based Nanofluids



Edited by **Aswathy Joseph, S M Sohel Murshed** and **Suresh Mathew**

This book provides a comprehensive exploration of nanoparticle dispersions in ionic liquids, covering their design, physicochemical behavior, and technological relevance. It builds from the foundational principles of colloidal science and ionic liquid chemistry to advances in synthesis strategies, interfacial phenomena, and structure-property relationships. Designed for researchers in academia and industry, as well as postgraduate students in mechanical, materials, chemical and environmental engineering, this volume serves as both a foundational reference and a forward-looking resource on next-generation functional nanofluids.

CRC Press

Market: Engineering - Nanotechnology

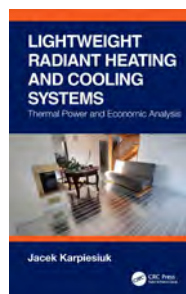
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Thermal Power and Economic Analysis



Jacek Karpiesiuk

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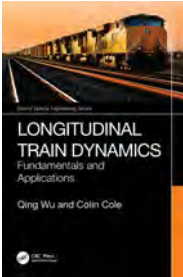
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Fundamentals and Applications



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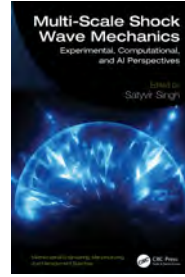
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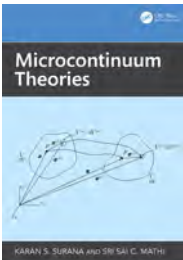
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Sri Sai C. Mathi

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Ranjan Vepa, School of Engineering and Material Science, Queen Mary, University of London, England, UK

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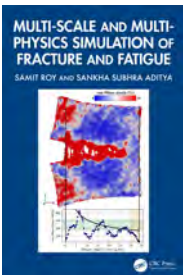
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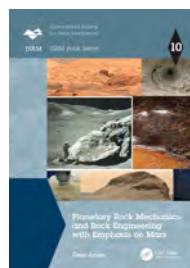
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CRC Press

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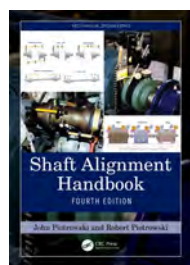
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This comprehensive guide explores the integration of information systems and applications in smart buildings, emphasizing their crucial role in achieving a low-carbon economy through optimal energy efficiency and cost reduction. This publication serves developing nations where smart building technology is evolving, making it particularly relevant for universities, engineers, architects, and real estate entities.

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CRC Press

Market: Engineering - Structural Mechanics

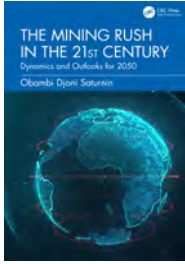
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Solutions for Surface Engineering



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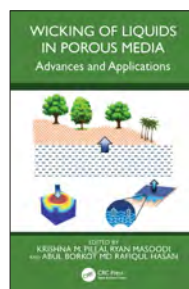
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Market: Energy Engineering

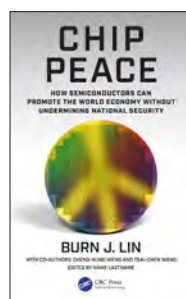
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CRC Press

Market: Electrical Engineering

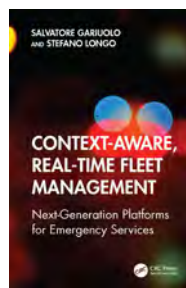
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CRC Press

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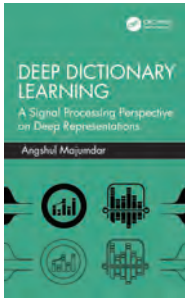
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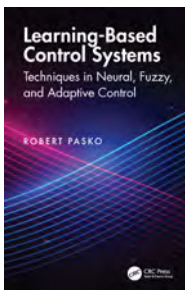
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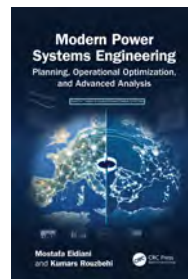
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Mostafa Eidiani and **Kumars Rouzbehi**

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Market: Electrical Engineering

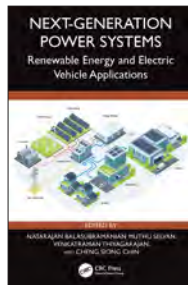
October 2026: 234x156: 234pp: 161 illus, 161 line drawings

Hb: 978-1-041-14521-9: **£86.99**

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Next-Generation Power Systems

Renewable Energy and Electric Vehicle Applications



Edited by **Natarajan Balasubramanian Muthu Selvan, Venkatraman Thiyagarajan** and **Cheng Siong Chin**, Newcastle University, Singapore.

Next-Generation Power Systems: Renewable Energy and Electric Vehicle Applications is a comprehensive resource that addresses emerging issues facing the power system industry in their drive toward more sustainable, reliable, and flexible power generation. It discusses technical, operational and grid integration challenges and solutions for large-scale renewable energy and electric power transmission and generation, including issues related to system stability, reliability, efficiency and capacity.

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Market: Engineering - Electrical

August 2026: 234x156: 531pp: 408 illus, 152 halftones, 256 line drawings

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From Design to Deployment



Amit Ray

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CRC Press

Market: Robotics

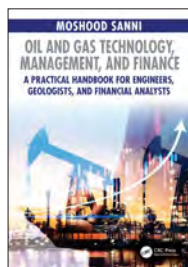
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CRC Press

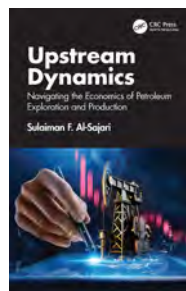
December 2026: 254x178: 1048pp: 811 illus, 811 halftones

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Upstream Dynamics

Navigating the Economics of Petroleum Exploration and Production



Sulaiman F. Al-Sajari

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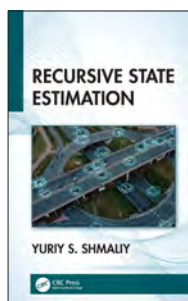
CRC Press

July 2026: 234x156: 326pp: 105 illus, 105 halftones

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Market: Engineering Education

February 2027: 234x156: 240pp: 2 illus, 2 halftones

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2nd Edition

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G. Maarten Bonnema, University of Twente, Enschede, The Netherlands and **Jan F. Broenink**, University of Twente, Enschede, The Netherlands

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Prev. Ed Pb: 978-1-4987-5126-1

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Research and Innovation



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CRC Press

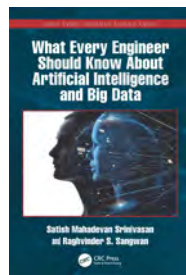
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CRC Press

August 2026: 234x156: 336pp: 42 illus, 19 halftones, 23 line drawings

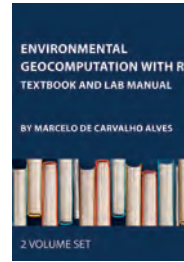
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Textbook and Lab Manual



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Environmental Geocomputation with R and its companion Laboratory Manual form a comprehensive educational package for geospatial data analysis. The textbook establishes theoretical foundations for visualization and modeling using both object-based and continuous field approaches, addressing spatial uncertainties while integrating spatial context into environmental analyses. The Lab Manual reinforces these concepts through practical exercises and case studies that follow a structured scientific workflow. Together, they enable students to progressively build skills in geocomputational techniques using R and its packages, from basic principles to complex real-world applications.

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August 2026: 254x178: 890pp: 431 illus, 180 halftones, 251 line drawings

Hb: 978-1-041-20822-8: **£130.00**

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David R. Rain, George Washington University, USA

Series: GIS in Action

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CRC Press

Market: Geospatial Analysis / Urban Planning / Environmental Management / Urban Geography

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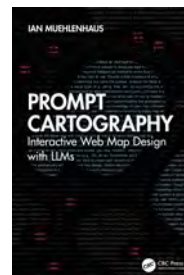
Hb: 978-1-032-63692-4: **£103.99**

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TEXTBOOK

Prompt Cartography

Interactive Web Map Design with LLMs



Ian Muehlenhaus, ESRI, Inc. - USA

Prompt Cartography: Interactive Map Design with LLMs is a practical, research-informed guide to directing large language models and AI agents to design modern interactive maps across web, mobile, and emerging natural-language GIS platforms. It highlights how cartographic principles such as design, ethics, and spatial communication remain vital despite technological shifts and emphasizes the importance of understanding coding and data literacy to responsibly integrate AI tools like LLMs into workflows. It reframes cartographers as media directors who articulate intent, ethics, and design decisions in structured natural language that LLMs then execute, critique, and iterate at scale.

CRC Press

Market: Cartography

August 2026: 234x156: 400pp: 91 illus, 41 halftones, 50 line drawings

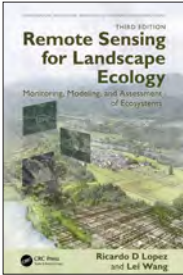
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ecological systems. This is an excellent book for professionals, students, and entry level workers in need of training in remote sensing applications in relation to landscape ecology.

CRC Press

Market: Environmental Science

September 2026: 234x156: 368pp: 96 illus, 74 halftones, 22 line drawings

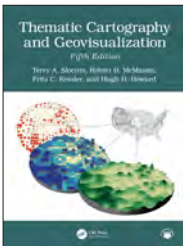
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Hb: 978-1-041-03375-2: **£120.00**

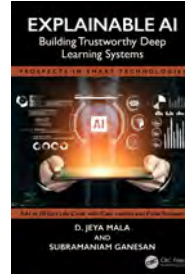
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Building Trustworthy Deep Learning Systems



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30 Case Studies for Rapid Improvement



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This comprehensive text addresses the urgent need for supply chain transformation in the face of unprecedented challenges, including pandemics, climate change, and technological disruption.

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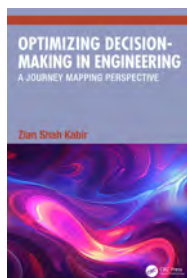
October 2026: 234x156: 192pp: 30 illus, 3 halftones, 27 line drawings

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CRC Press

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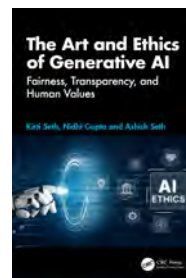
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CRC Press

Market: Engineering - Industrial Engineering and Manufacturing

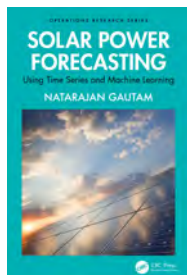
July 2026: 234x156: 198pp: 36 illus, 3 halftones, 33 line drawings

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Natarajan Gautam, Syracuse University, USA

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CRC Press

Market: Engineering - Industrial Engineering and Manufacturing

July 2026: 234x156: 200pp: 103 illus, 2 halftones, 101 line drawings

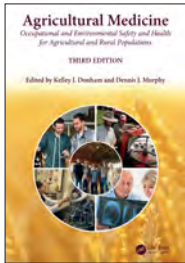
Pb: 978-1-032-51695-0: **£52.99**

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September 2026: 254x178: 642pp: 156 illus, 51 halftones, 105 line drawings

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Safety Causation and Sociological Explanation



Jean-Christophe Le Coze

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CRC Press

Market: Occupational Health & Safety

November 2026: 234x156: 240pp: 23 illus, 7 halftones, 16 line drawings

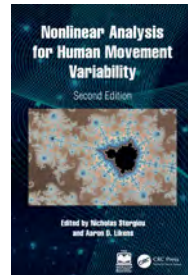
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CRC Press

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September 2026: 234x156: 538pp: 219 illus, 10 halftones, 209 line drawings

Hb: 978-1-032-49582-8: **£96.99**

Prev. Ed Hb: 978-1-4987-0332-1

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Developments, Applications and Approaches



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July 2026: 254x178: 372pp: 103 illus, 30 halftones, 73 line drawings

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The Human Dynamics of Achieving an Injury-Free Workplace

Safety Directives from Psychological Science



E. Scott Geller and **Krista S. Geller**

Creating an injury-free workplace demands more than policies and procedures since it requires the engagement of every employee to actively care for their own safety and that of their colleagues. This research-based, teaching and learning workbook addresses the critical human dynamics that determine whether safety and health initiatives succeed or fail. Drawing from decades of psychological science, the authors present a systematic approach to building an actively-caring-for-people (AC4P) work culture that transforms safety from a compliance-driven requirement into an interdependent shared commitment.

CRC Press

Market: Occupational Health & Safety

August 2026: 234x156: 150pp: 46 illus, 46 halftones

Pb: 978-1-041-28078-1: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041280781

Wearables in Industrial Hygiene

Improving Safety through Real-Time Health Monitoring



Michelle Stewart and Stephen Lee

The primary goal of any industrial hygienist is to prevent hazards before they affect workers. However, safeguards can fail, and human error is inevitable, leading to potential overexposure to occupational hazards. This book explores how to create a dynamic and responsive workplace, emphasizing the importance of early detection and intervention using modern technology through wearable monitors and sensors. This book explores the integration of wearable technology in industrial hygiene.

CRC Press

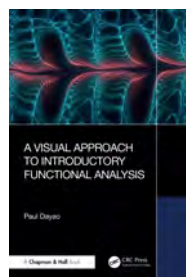
Market: Occupational Health & Safety

August 2026: 234x156: 110pp: 5 illus, 2 halftones, 3 line drawings

Hb: 978-1-032-91480-0: **£86.99**

★ For **full contents** and more information, visit: www.routledge.com/9781032914800

A Visual Approach to Introductory Functional Analysis



Paul Dayao

A Visual Approach to Introductory Functional Analysis is designed to offer a visual, geometric approach to functional analysis which bridges the gap between elementary analysis and advanced Banach Space Theory. This book can serve as a concise textbook for an undergraduate course on introductory functional analysis course, or as a geometrically-focussed supplement to a more advanced treatment of the subject.

Chapman and Hall/CRC

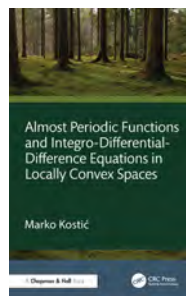
Market: Mathematics

October 2026: 234x156: 200pp: 68 illus, 68 line drawings

Pb: 978-1-041-35918-0: **£59.99**

★ For **full contents** and more information, visit: www.routledge.com/9781041359180

Almost Periodic Functions and Integro-Differential-Difference Equations in Locally Convex Spaces



Marko Kostić, University of Novi Sad, Serbia

Ideal for PhD students in mathematics, postdoctoral researchers and mathematicians working within the field of almost periodic functions and abstract Volterra integro-differential inclusions to acquire new techniques and deepen their knowledge.

Chapman and Hall/CRC

Market: Mathematics

October 2026: 254x178: 510pp

Hb: 978-1-041-35398-0: **£205.00**

★ For **full contents** and more information, visit: www.routledge.com/9781041353980

TEXTBOOK

Applied Linear Algebra for Engineers



Michael F. Insana

Applied Linear Algebra for Engineers is an attempt to bridge the gap between concepts and practice by providing engineering context to fundamental topics in linear algebra in a self-learning format. Formal mathematics and historical references are suppressed in favor of examples and exercises all worked out analytically and numerically with results explained graphically where appropriate. This aim of this text is to empower senior students and practicing engineers and scientists with some previous exposure to linear algebra to dive into applications with confidence, and to deepen their understanding and innovative uses of linear algebra.

Chapman and Hall/CRC

Market: Mathematics

November 2026: 234x156: 360pp: 73 illus, 8 halftones, 65 line drawings

Hb: 978-1-041-35868-8: **£96.99**

★ For **full contents** and more information, visit: www.routledge.com/9781041358688

Applied Mathematics Toolkit

Modeling, Data, and Algorithms for Scientists and Engineers



Nan Chen and Charlotte Moser

For advanced undergraduate students, graduate students, and researchers in applied mathematics, science, and engineering who seek practical mastery of modern mathematical tools. It is well suited to topic courses and self-study, particularly for readers working at the intersection of modeling, data, and computation.

Chapman and Hall/CRC

Market: Mathematics

October 2026: 254x178: 296pp: 36 illus, 36 line drawings

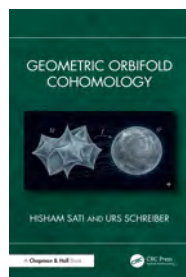
Pb: 978-1-041-23824-9: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041238249

Geometric Orbifold Cohomology

Hisham Sati and Urs Schreiber

Cohomology theories defined on orbifold spacetimes. *Geometric Orbifold Cohomology* presents a modernized and enhanced formulation of these theories, establishing a rigorous framework for nonabelian and differential cohomology in the setting of higher geometry.



Chapman and Hall/CRC

Market: Mathematics

September 2026: 234x156: 344pp: 20 illus, 20 line drawings

Hb: 978-1-041-14751-0: **£120.00**

★ For full contents and more information, visit: www.routledge.com/9781041147510

Blackjack Mathematics for Non-Mathematicians



Mark Bollman

Series: AK Peters/CRC Recreational Mathematics Series

This book explores the mathematics behind the casino game of blackjack or 21, with consideration given to a number of game variations that have, at times, found favor in casinos or in casual play. The emphasis is on the mathematics that underlies the game; the intention is to present the math at a level that is accessible to the educated citizen, one who can handle some algebraic manipulations (perhaps with reminders) but need not know any calculus or advanced statistics.

AK Peters/CRC Press

Market: Mathematics

August 2026: 234x156: 300pp: 20 illus, 20 line drawings

Pb: 978-1-041-03016-4: **£29.99**

★ For full contents and more information, visit: www.routledge.com/9781041030164

TEXTBOOK • 2nd Edition

Introduction to Computational Engineering with MATLAB®



Timothy Bower, Kansas State University, USA

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

Introduction to Computational Engineering with MATLAB® aims to teach readers how to use MATLAB programming to solve numerical engineering problems. The book focuses on computational engineering with the objective of helping engineering students improve their numerical problem-solving skills. The book cuts a middle path between undergraduate texts that simply focus on programming and advanced mathematical texts that skip over foundational concepts, feature cryptic mathematical expressions, and do not provide sufficient support for novices.

Chapman and Hall/CRC

Market: Engineering

November 2026: 234x156: 480pp: 134 illus, 17 halftones, 117 line drawings

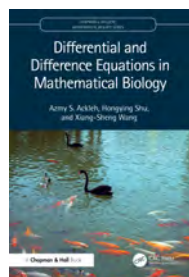
Pb: 978-1-041-16908-6: **£66.99**

Prev. Ed Pb: 978-1-032-22141-0

★ For full contents and more information, visit: www.routledge.com/9781041169086

TEXTBOOK

Differential and Difference Equations in Mathematical Biology



Azmy S. Ackleh, University of Louisiana, LaFayette, Louisiana, USA, **Hongying Shu** and **Xiang-Sheng Wang**

Series: Chapman & Hall/CRC Mathematical Biology Series

Differential and Difference Equations in Mathematical Biology introduces graduate and senior undergraduate students to differential and difference equations as tools for modeling biological phenomena.

The book presents fundamental theory as well as recent research developments concerning the local and global analysis of continuous and discrete dynamical systems in mathematical biology. In addition to serving as a teaching text, the book is also valuable to researchers as both a

reference and an introduction to the subject.

Chapman and Hall/CRC

Market: Mathematics

September 2026: 234x156: 208pp: 4 illus, 4 line drawings

Pb: 978-1-032-75024-8: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781032750248

TEXTBOOK

Lecture Notes on Functional Analysis



Paolo Acquistapace

Provides a rigorous yet accessible introduction to functional analysis, guiding readers from elementary measure theory through advanced spectral theory.

Chapman and Hall/CRC

Market: Mathematics

November 2026: 254x178: 240pp

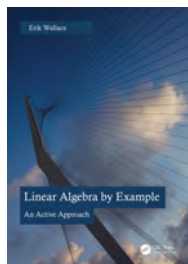
Hb: 978-1-041-29275-3: **£96.99**

★ For full contents and more information, visit: www.routledge.com/9781041292753

TEXTBOOK

Linear Algebra by Example

An Active Approach



Erik Wallace

This book offers a modular, concept-driven introduction to linear algebra designed for undergraduate students across mathematics, engineering, computer science, and the sciences.

CRC Press

Market: Mathematics

August 2026: 254x178: 374pp: 38 illus, 38 line drawings

Pb: 978-1-041-23508-8: **£55.99**

★ For full contents and more information, visit: www.routledge.com/9781041235088

Mathematical Foundations of Deep Learning

Theory and Algorithms



Xiaojing Ye

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

Offers a comprehensive and rigorous treatment of the mathematical principles underlying modern deep learning.

Chapman and Hall/CRC

Market: Mathematics

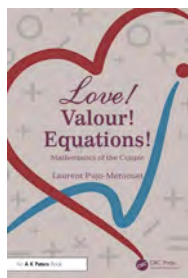
August 2026: 254x178: 284pp: 25 illus, 25 line drawings

Pb: 978-1-032-87708-2: **£67.99**

★ For full contents and more information, visit: www.routledge.com/9781032877082

LOVE! VALOUR! EQUATIONS!

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Laurent Pujo-Menjouet

Series: *AK Peters/CRC Recreational Mathematics Series*

Their hidden formula, their miracle recipe, their magic potion? In short, their secret? Laurent Pujo-Menjouet, a PhD in mathematics, might just hold the answer. Not a spell or an incantation, but a formula or more precisely, mathematical formulas. What if the solution to our romantic troubles lay in the very subject most of us once dreaded in school? If x and y could save your relationship, would you dare to step into the mind of a mathematician to solve matters of the heart?

AK Peters/CRC Press

Market: Mathematics

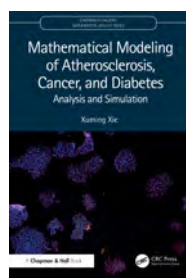
August 2026: 234x156: 164pp: 44 illus, 44 line drawings

Pb: 978-1-041-28170-2: **£29.99**

★ For full contents and more information, visit: www.routledge.com/9781041281702

Mathematical Modeling of Atherosclerosis, Cancer, and Diabetes

Analysis and Simulation



Xuming Xie, Morgan State University, USA

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

This book provides state of art mathematical models describing the dynamical behaviour of diabetes, atherosclerosis and cancer, focussing not only on numerical simulations, but also on the mathematical analysis of the models themselves. The book is aimed at professional mathematical analysts, applied mathematicians, biophysicists, and biomedical engineers. It can also be used to teach graduate students, while it should be valuable reference for researchers in mathematical biology, dynamical systems, PDEs and stochastic differential equations.

Chapman and Hall/CRC

Market: Mathematics

August 2026: 234x156: 314pp: 40 illus, 40 line drawings

Hb: 978-1-032-45320-0: **£115.00**

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Mathematical Concepts in Single-Neuron Dynamics



Richard Bertram

Series: *The Mathematical Concepts in Science Series*

Hands-on guide bridges the gap between mathematics and neuroscience, providing clear explanations of the key dynamical systems concepts that appear repeatedly in the computational/mathematical neuroscience literature.

Chapman and Hall/CRC

Market: Mathematics

May 2026: 234x156: 136pp: 56 illus, 56 line drawings

Hb: 978-1-041-23819-5: **£145.99**

★ For full contents and more information, visit: www.routledge.com/9781041238195

Mathematical Tidbits



Jens Cartensen

Series: *AK Peters/CRC Recreational Mathematics Series*

Mathematical Tidbits presents readers with a fascinating collection of short essays from a wide variety of mathematical disciplines, ranging from number theory, trigonometry, probability to geometry. Mathematicians and students of mathematics will experience no problems in following the development of the concepts at hand, while complete laypeople will find things to engage and stimulate them into further exploration. This book would be an ideal gift for a student or mathematics teacher, while anyone with an interest in mathematics will find it an enjoyable collection of familiar and not-so-familiar problems and ideas to read at their leisure.

AK Peters/CRC Press

Market: Mathematics

September 2026: 234x156: 254pp: 223 illus, 1 halftone, 222 line drawings

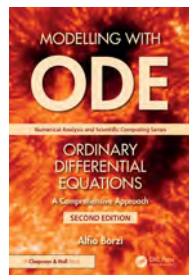
Pb: 978-1-041-28872-5: **£22.99**

★ For full contents and more information, visit: www.routledge.com/9781041288725

TEXTBOOK • 2nd Edition

Modelling with Ordinary Differential Equations

A Comprehensive Approach



Alfio Borzi, University of Würzburg, Germany

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

This book aims to provide a broad and self-contained introduction to the mathematical tools necessary to investigate and apply ODE models. This second edition has been thoroughly revised, reorganised, and expanded with new material across most chapters. The theoretical foundations are strengthened by additional results on existence and uniqueness, Lipschitz conditions, blow-up phenomena, and Green functions, as well as new sections on compartment models and Hamiltonian systems.

Chapman and Hall/CRC

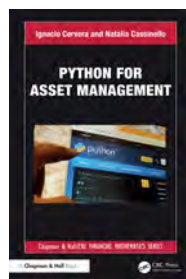
Market: Mathematics

November 2026: 234x156: 528pp: 75 illus, 2 halftones, 73 line drawings

Hb: 978-1-032-89764-6: **£59.99**

★ For **full contents** and more information, visit: www.routledge.com/9781032897646

Python for Asset Management



Ignacio Cervera and **Natalia Cassinello**

Series: Chapman and Hall/CRC Financial Mathematics Series

The asset management industry is undergoing a paradigm shift toward automation, transparency, and data-driven decision-making. Traditional tools (Excel, Bloomberg) are being replaced by programmable, scalable solutions. Yet, most finance professionals lack accessible, practical training in applying Python to real portfolio problems.

Chapman and Hall/CRC

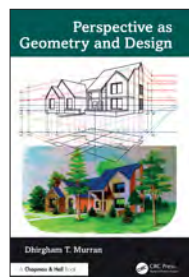
Market: Mathematics

August 2026: 234x156: 336pp: 58 illus, 58 line drawings

Hb: 978-1-041-30832-4: **£105.00**

★ For **full contents** and more information, visit: www.routledge.com/9781041308324

Perspective as Geometry and Design



Dhirgham T. Murrain

Redefines the foundations of perspective drawing through a unified and rigorously geometric approach. Designed for artists, architects, designers, and engineers, the book presents perspective not simply as a visual convention.

Chapman and Hall/CRC

Market: Mathematics

August 2026: 234x156: 168pp: 154 illus, 11 halftones, 143 line drawings

Hb: 978-1-041-30675-7: **£115.00**

★ For **full contents** and more information, visit: www.routledge.com/9781041306757

The Logical Structure of Mathematics

An Overview of Mathematical Concepts



Simon Serovajsky, Al-Farabi Kazakh National University, Department of Differential Equations and Control Theory, Almaty, Kazakhstan

This book is devoted to the presentation of the logical structure of mathematics from its foundations to its main standard areas and sections. Due to the breadth of the material covered and the emphasis on identifying interdisciplinary connections, the book can help mathematicians expand the scope of their scientific interests and draw new ideas from related mathematical areas. Due to the thorough explanation of the meaning of newly introduced concepts, the presence of rich illustrative material and the absence of cumbersome technical calculations, the

book can help young researchers and students navigate the boundless ocean of mathematical ideas.

Chapman and Hall/CRC

Market: Mathematics

December 2026: 254x178: 552pp: 219 illus, 219 line drawings

Hb: 978-1-041-01522-2: **£205.00**

★ For **full contents** and more information, visit: www.routledge.com/9781041015222

Principles of Portfolio Choice

An Information-Theoretic, Likelihood-Based Perspective



Jan Vecer

Series: Chapman and Hall/CRC Financial Mathematics Series

The book translates Kelly growth, utility maximization, mean-variance analysis, martingale pricing, option payoffs, hedging, Bayesian averaging, and model selection into this likelihood-based language. It shows that many classical methods can be understood as approximations, transformations, or constrained versions of a single payoff-measure dictionary. Written for quantitative analysts, portfolio managers, researchers, and graduate students, the book offers a new foundation for thinking about prices, beliefs, payoffs, and evidence in financial markets.

Chapman and Hall/CRC

Market: Mathematics

November 2026: 254x178: 392pp: 28 illus, 28 line drawings

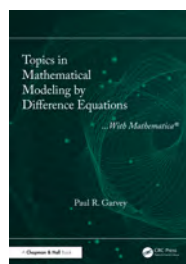
Hb: 978-1-032-95198-0: **£99.99**

★ For **full contents** and more information, visit: www.routledge.com/9781032951980

TEXTBOOK

Topics in Mathematical Modeling by Difference Equations

With Mathematica



Paul R. Garvey

This book seeks to illuminate this powerful framework by integrating theoretical insights with practical applications. It serves two primary goals: to provide a clear introduction to the calculus of finite differences and first-order difference equations, and to guide readers toward advanced methods for deeper exploration. This text is written for undergraduate students in mathematics, business, economics, and other quantitative sciences. Researchers and professionals who use mathematical modeling in their work, and anyone intrigued by the role of mathematics in understanding discrete systems, will also find tremendous value in this text.

Chapman and Hall/CRC

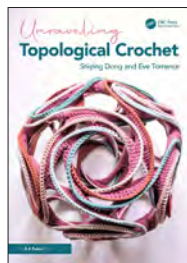
Market: Mathematics

October 2026: 254x178: 568pp: 112 illus, 3 halftones, 109 line drawings

Hb: 978-1-041-11047-7: **£59.99**

★ For **full contents** and more information, visit: www.routledge.com/9781041110477

Unraveling Topological Crochet



Shiying Dong and Eve Torrence

Series: AK Peters/CRC Recreational Mathematics Series

"Models in this book look magical. And as you cannot learn magic just from watching it being performed, so it is with topological crochet. In this book the magic of topological crochet is carefully revealed to the reader step by step. Follow it by making your own models and you will be rewarded with a deep understanding of topology and your own collection of beautiful crochet sculptures." - Daina Taimina, mathematician and author of *Crocheting Adventures with Hyperbolic Planes: Tactile Mathematics, Art and Craft for all to Explore*

AK Peters/CRC Press

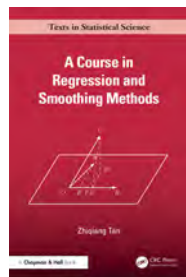
Market: Recreational Mathematics

August 2026: 280x210: 280pp: 639 illus, 313 halftones, 326 line drawings

Pb: 978-1-032-83049-0: £22.99

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A Course in Regression and Smoothing Methods



Zhiqiang Tan

Series: Chapman & Hall/CRC Texts in Statistical Science

This book provides a concise account of 4 components of regression and smoothing methods: linear regression, generalized linear models, spline and kernel methods, and generalized linear mixed models. By bringing together parametric regression and nonparametric smoothing methods, the book emphasizes connections across methods, enabling readers to recognize common structures and to adapt techniques to new problems.

Chapman and Hall/CRC

Market: Statistics

July 2026: 234x156: 288pp: 39 illus, 39 line drawings

Hb: 978-1-041-15277-4: £91.99

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Advanced Basketball Data Science

With Applications in R



Paola Zuccolotto, Marica Manisera and Marco Sandri

Series: Chapman & Hall/CRC Data Science Series

Designed for analysts, coaches, researchers, and graduate students, this volume translates complex concepts into actionable tools that can immediately elevate scouting, strategy, and performance evaluation. Whether you aim to understand spatial tendencies, quantify player impact, or model scoring probabilities with machine learning, this book provides the framework to do so with clarity and confidence.

Chapman and Hall/CRC

Market: Statistics

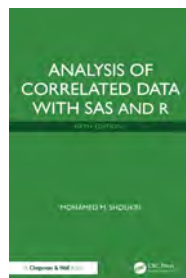
August 2026: 234x156: 342pp: 110 illus, 20 halftones, 90 line drawings

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Analysis of Correlated Data with SAS and R



Mohamed M. Shoukri

The fifth edition provides cutting-edge methodologies for analysing clustered and correlated data, incorporating new topics and advancements in statistical modelling and machine learning. With extensive examples, real-world datasets, and practical codes for R and SAS, this book equips readers with the tools to master advanced data analytics.

Chapman and Hall/CRC

Market: statistics

December 2026: 234x156: 560pp: 38 illus, 7 halftones, 31 line drawings

Hb: 978-1-032-97047-9: £115.00

Prev. Ed Hb: 978-1-138-19745-9

★ For full contents and more information, visit: www.routledge.com/9781032970479

Bayesian Models in Health Technology Assessment



Gianluca Baio, Department of Statistical Science, University College London, UK

Series: *Chapman & Hall/CRC Biostatistics Series*

Aims at presenting a thorough and yet accessible description of the philosophy underlying the Bayesian approach to statistical inference, as specifically applied to the process of health technology assessment (HTA). The book is grounded in practical examples, mostly taken from the HTA context and covering a wide range of real problems, typically encountered by modellers in their day-to-day work.

Chapman and Hall/CRC

Market: Statistics

September 2026: 254x178: 384pp: 124 illus, 124 line drawings

Hb: 978-1-041-29738-3: **£91.99**

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A Concise Guide to Medical Research



Michael Brimacombe

This book is a concise, beginner's introduction to medical research written for biomedical researchers, medical students, young faculty and clinicians who would like a readable guide to the research process, in particular the medical and biomedical research process.

Chapman and Hall/CRC

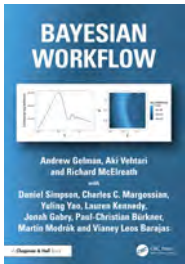
Market: Statistics

September 2026: 234x156: 216pp: 30 illus, 30 line drawings

Pb: 978-1-041-02195-7: **£49.99**

★ For full contents and more information, visit: www.routledge.com/9781041021957

Bayesian Workflow



Andrew Gelman, Martin Modrák, Vianey Leos Barajas, Aki Vehtari, Richard McElreath, Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany, **Daniel Simpson, Charles C. Margossian, Yuling Yao, Lauren Kennedy, Jonah Gabry** and **Paul-Christian Bürkner**

This book explores the intricate workflows of applied Bayesian statistics, aiming to uncover the tacit knowledge often overlooked in published papers and textbooks. By systematizing the process of Bayesian model development, the book seeks to improve applied analyses and inspire future innovations in theory, methods, and software.

Chapman and Hall/CRC

Market: Statistics

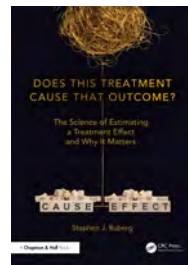
June 2026: 254x178: 552pp: 243 illus, 243 line drawings

Pb: 978-0-367-49014-0: **£44.99**

★ For full contents and more information, visit: www.routledge.com/9780367490140

Does This Treatment Cause That Outcome?

The Science of Estimating a Treatment Effect and Why It Matters



Stephen J. Ruberg

Does This Treatment Cause That Outcome?: The Science of Estimating a Treatment Effect and Why It Matters is an engaging and insightful exploration of cause-and-effect relationships in clinical research. It begins with the foundational principles of causal inference, traces the historical evolution of randomized controlled trials, and provides a clear, comprehensive explanation of the essential elements of ICH E9(R1). The central themes of ICH E9(R1) – defining the clinical question of primary importance and establishing the estimand to answer that question – are seamlessly integrated throughout the narrative.

Chapman and Hall/CRC

Market: Biostatistics

July 2026: 254x178: 282pp: 24 illus, 24 line drawings

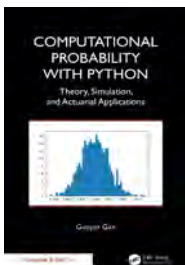
Hb: 978-1-041-04974-6: **£150.00**

★ For full contents and more information, visit: www.routledge.com/9781041049746

TEXTBOOK

Computational Probability with Python

Theory, Simulation, and Actuarial Applications



Guojun Gan, University of Connecticut, U.S.A.

This textbook is designed for undergraduate actuarial students seeking a clear, practical, and mathematically sound introduction to the subject. Requiring only a first course in calculus, it develops core ideas in a structured and accessible way, making it suitable for a one-semester course as well as for independent study. What sets this book apart is its balanced approach between intuition and rigor. Rather than relying heavily on measure-theoretic formalism or focusing solely on computational techniques, it introduces essential concepts—such as probability spaces—in a gradual and approachable manner.

Chapman and Hall/CRC

Market: Statistics

November 2026: 234x156: 280pp: 12 illus, 12 line drawings

Hb: 978-1-041-35464-2: **£94.99**

★ For full contents and more information, visit: www.routledge.com/9781041354642

2nd Edition

Empirical Likelihood Method in Survival Analysis

With R Implementation, Second Edition



Mai Zhou, University of Kentucky, Lexington, USA

Series: *Chapman & Hall/CRC Biostatistics Series*

This book systematically covers empirical likelihood methods in most important topics in survival analysis: the Kaplan–Meier and the Nelson–Aalen estimator, the log rank test, the Cox proportional hazards model and the accelerated failure time models. In addition, it also covers an extension of the Cox model—the short term/long term hazard ratio model of Yang and Prentice. Finally, empirical likelihood methods with current status data or type I interval censored data are investigated: estimation/test for the mean/hazard/probability and regression models are discussed.

Chapman and Hall/CRC

Market: Statistics

September 2026: 234x156: 372pp: 30 illus, 30 line drawings

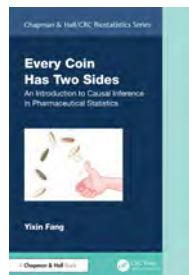
Hb: 978-1-032-98635-7: **£125.00**

Prev. Ed Hb: 978-1-4665-5492-4

★ For full contents and more information, visit: www.routledge.com/9781032986357

Every Coin Has Two Sides

An Introduction to Causal Inference in Pharmaceutical Statistics



Yixin Fang, AbbVie, Chicago, USA

Series: Chapman & Hall/CRC Biostatistics Series

Progressing from basic statistical concepts to advanced targeted learning techniques, the book highlights the fusion of two cultures of statistical modelling. This book is suitable for graduate students in statistics, biostatistics, public health, and data science who are looking to pursue a career in the pharmaceutical industry, as well as for clinical statisticians and epidemiologists working in the pharmaceutical industry.

Chapman and Hall/CRC

Market: Statistics

August 2026: 234x156: 392pp: 35 illus, 35 line drawings

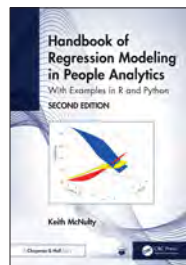
Hb: 978-1-041-06300-1: **£110.00**

★ For full contents and more information, visit: www.routledge.com/9781041063001

2nd Edition

Handbook of Regression Modeling in People Analytics

With Examples in R and Python, Second Edition



Keith McNulty

This book is a resource on inferential statistics and regression analysis. It teaches how to do a wide range of statistical analyses in both R and Python, ranging from simple hypothesis testing to advanced multivariable modelling. The book hits a 'sweet spot' where there is just enough mathematical theory to support a strong understanding of the methods, but with a step-by-step guide and easily reproducible examples and code, so that the methods can be put into practice immediately. This makes the book accessible to a wide readership, from public and private sector analysts and practitioners to undergraduate and postgraduate students and researchers.

Chapman and Hall/CRC

Market: Statistics

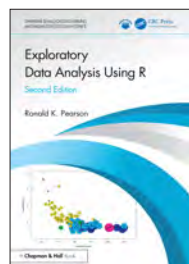
October 2026: 254x178: 440pp: 91 illus, 2 halftone, 89 line drawings

Pb: 978-1-041-12126-8: **£67.99**

★ For full contents and more information, visit: www.routledge.com/9781041121268

TEXTBOOK • 2nd Edition

Exploratory Data Analysis Using R



Ronald K. Pearson, GeoVera Holdings, Inc., CA, USA

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

Exploratory Data Analysis Using R provides a classroom-tested introduction to exploratory data analysis (EDA), and this revised edition is accompanied by the R package ExploreTheData. The primary focus is on identifying "interesting" features - good, bad, and ugly - in a dataset, why it is important to find them, how to treat them, and the use of R to explore and explain datasets and the analysis results derived from them.

Chapman and Hall/CRC

Market: Computer Science

July 2026: 254x178: 592pp: 109 illus, 109 line drawings

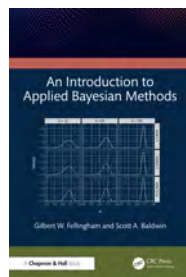
Pb: 978-1-032-81480-3: **£54.99**

Prev. Ed Pb: 978-0-367-57156-6

★ For full contents and more information, visit: www.routledge.com/9781032814803

TEXTBOOK

An Introduction to Applied Bayesian Methods



Gilbert W. Fellingham, Brigham Young University, USA.
and **Scott A. Baldwin**, Brigham Young University, USA.

This book emphasizes practical application, showing how Bayesian models can handle variability, uncertainty, and predictive challenges in ways that are both intuitive and robust. Supplemental Nimble code is also available online, offering additional flexibility for readers. The book is ideal for advanced undergraduate students, researchers, and professionals in statistics and related fields. If you have a basic understanding of Bayesian principles and want to deepen your knowledge with practical examples, this book is for you. It's also a valuable resource for educators teaching applied Bayesian methods.

Chapman and Hall/CRC

Market: Statistics

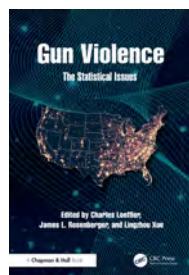
November 2026: 234x156: 256pp: 53 illus, 6 halftones, 47 line drawings

Pb: 978-1-032-41286-3: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781032412863

Gun Violence

The Statistical Issues



Edited by **Charles Loeffler**, **James L. Rosenberger** and **Lingzhou Xue**

This book provides an overview of adequate data and informative analyses on several important topics in gun violence research. This book exposes the opportunities and needs for the latest statistical efforts and engages new statisticians and data scientists to work across disciplinary lines to help understand and mitigate the effects of gun violence.

Chapman and Hall/CRC

Market: Statistics

July 2026: 234x156: 250pp: 32 illus, 6 halftones, 26 line drawings

Hb: 978-1-032-55449-5: **£89.99**

★ For full contents and more information, visit: www.routledge.com/9781032554495

TEXTBOOK • 2nd Edition

Introduction to Data Science

Statistics and Prediction Algorithms Through Case Studies



Rafael A. Irizarry, Dept. of Biostatistics, Harvard School of Public Health, Boston, Massachusetts, USA

Series: Chapman & Hall/CRC Data Science Series

Introduction to Data Science: Statistics and Prediction Algorithms Through Case Studies teaches data science as a way of thinking statistically, not just as a collection of computational tools. Building on the topics covered in *Introduction to Data Science: Data Wrangling and Visualization with R*, this book is designed for students with some programming experience and basic mathematical maturity, this book builds the foundations of probability, statistical inference, regression, high-dimensional data analysis, and machine learning through real data examples and reproducible R code.

Chapman and Hall/CRC

Market: Statistics

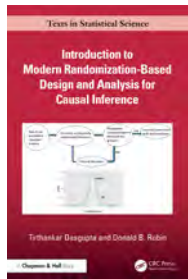
December 2026: 254x178: 480pp: 219 illus, 4 halftones, 215 line drawings

Pb: 978-1-032-41987-9: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781032419879

TEXTBOOK

Introduction to Modern Randomization-Based Design and Analysis for Causal Inference



Tirthankar Dasgupta and **Donald B. Rubin**

Series: Chapman & Hall/CRC Texts in Statistical Science

Design of experiments is, in essence, a disciplined way to learn about cause and effect. Modern experiments can involve a few to millions of units and hundreds or thousands of covariates. These settings demand tools that are flexible, transparent, and faithful to the underlying design in order reach reliable conclusions about which interventions work and which ones do not. This book provides a modern, accessible, and computationally supported introduction to experimental design grounded firmly in randomization and the formulation of ideas and methods in terms of potential outcomes.

Chapman and Hall/CRC

Market: Statistics

September 2026: 234x156: 360pp: 52 illus, 52 line drawings

Hb: 978-0-367-50098-6: **£76.99**

★ For full contents and more information, visit: www.routledge.com/9780367500986

TEXTBOOK • 3rd Edition

Markov Chain Monte Carlo

Stochastic Simulation for Bayesian Inference



Dani Gamerman, **Hedibert F. Lopes** and **Flávio Bimbirra Gonçalves**

Series: Chapman & Hall/CRC Texts in Statistical Science

Marking a pivotal moment in the evolution of Bayesian inference, the third edition of this seminal textbook on Markov Chain Monte Carlo (MCMC) methods reflects the profound transformations in both the field of Statistics and the broader landscape of data science over the past two decades.

Chapman and Hall/CRC

Market: Statistics

July 2026: 254x178: 367pp: 58 illus, 58 line drawings

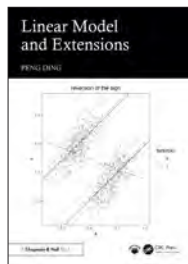
Hb: 978-1-032-99845-9: **£155.00**

Prev. Ed Hb: 978-1-58488-587-0

★ For full contents and more information, visit: www.routledge.com/9781032998459

TEXTBOOK

Linear Model and Extensions



Peng Ding, University of California Berkeley, U.S.A

This book is suitable for advanced undergraduate or graduate-level courses on linear modeling, or graduate-level courses on generalized linear modeling. It can also be used as a reference for researchers who are searching for basic properties of the linear model and its extensions.

Chapman and Hall/CRC

Market: Statistics

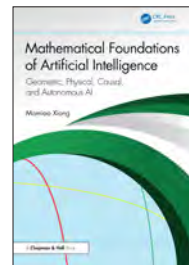
October 2026: 254x178: 434pp: 63 illus, 63 line drawings

Pb: 978-1-032-82550-2: **£68.99**

★ For full contents and more information, visit: www.routledge.com/9781032825502

Mathematical Foundation of Artificial Intelligence

Geometric, Physical, Causal, and Autonomous AI



Momiao Xiong, University of Texas School of Public Health, USA

Mathematical Foundations of Artificial Intelligence: Geometric, Physical, Causal, and Autonomous AI is the second volume in a two-part series. The first volume, *Mathematical Foundations of Artificial Intelligence: Basics of Manifold Theory* (CRC Press, 2026), developed the geometric language needed to think rigorously about differential manifolds, metrics, curvature, and related structures of intelligence. That volume established the vocabulary. This volume asks what follows when that language is used to reconstruct artificial intelligence from the ground up around four foundational themes: geometry, physics, causality, and autonomy.

Chapman and Hall/CRC

Market: Statistics

December 2026: 254x178: 616pp: 19 illus, 2 halftones, 17 line drawings

Hb: 978-1-041-07339-0: **£120.00**

★ For full contents and more information, visit: www.routledge.com/9781041073390

Machine Learning in Health Care

With R, H2O and Keras3



Uli Schell and **Claudia Scherl**

This hands-on introduction uses numerous realistic examples from the field of health care to convey the basics and the various methods of machine learning with R, H2O and Keras3. You will also learn how to prepare and visualize the data. Both statistical methods (such as regression, classification, factor, cluster methods) and neural networks are covered. In transfer learning with convolutional networks, heatmaps are used to show how results in image classification can be explained. Procedures and techniques in health care are subject to many regulations. This book explains what you need to do in order to achieve compliance.

Chapman and Hall/CRC

Market: Statistics

December 2026: 254x178: 408pp: 257 illus, 55 halftones, 202 line drawings

Pb: 978-1-041-12928-8: **£67.99**

★ For full contents and more information, visit: www.routledge.com/9781041129288

Multivariate Statistics Beyond Normality



Reinaldo B. Arellano-Valle and **Marc G. Genton**

Written by two leading specialists on multivariate statistics, this book includes the most recent and some novel results on skew-normal and related distributions, covering both singular and nonsingular cases in a unified way, and contains unpublished results on elliptical distributions from the first author's Ph.D. thesis. Designed for a broad readership by starting from basic fundamental concepts and leading to more advanced topics, the book includes 150 exercises, many original, to practice the concepts presented across the chapters, as well as 40 open problems that still need to be further researched.

Chapman and Hall/CRC

Market: Statistics

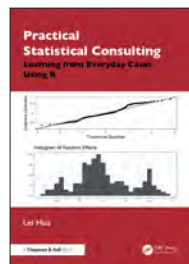
September 2026: 254x178: 400pp: 15 illus, 1 halftone, 14 line drawings

Hb: 978-1-032-96325-9: **£91.99**

★ For full contents and more information, visit: www.routledge.com/9781032963259

Practical Statistical Consulting

Learning from Everyday Cases Using R



Lei Hua

The book can serve both as a teaching resource and as a practical reference. Students can use it as an exercise-oriented companion for developing applied statistical skills through many case studies, while researchers and practitioners from diverse fields may consult it to find a case study resembling their own analytical situation and adapt the accompanying codes and workflow to their own work.

Chapman and Hall/CRC

Market: Statistics

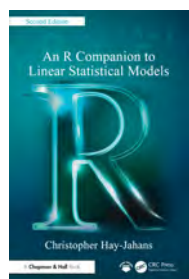
October 2026: 254x178: 336pp: 103 illus, 3 halftones, 100 line drawings

Pb: 978-1-041-16305-3: **£59.99**

★ For full contents and more information, visit: www.routledge.com/9781041163053

2nd Edition

An R Companion to Linear Statistical Models



Christopher Hay-Jahans, University of Alaska-Southeast, Juneau, USA

Taking advantage of both user-developed code and specialized functions, this second edition of *An R Companion to Linear Statistical Models* again targets two primary audiences: Those who are familiar with the introductory theory and applications of linear statistical models and who wish to learn how to use R in this area, or explore further ideas that might appear in this Companion; and those who are enrolled in an intermediate to advanced level course on linear statistical models for which R is the computational platform. This Companion includes accessible introductions to writing R code as well as making use of functions through relevant examples.

Chapman and Hall/CRC

Market: Statistics

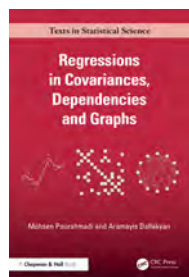
September 2026: 234x156: 424pp: 101 illus, 9 halftones, 92 line drawings

Pb: 978-1-032-93837-0: **£82.99**

Prev. Ed Pb: 978-1-138-11603-0

★ For full contents and more information, visit: www.routledge.com/9781032938370

Regressions in Covariances, Dependencies and Graphs



Mohsen Pourahmadi and **Aramayis Dallakyan**

Series: Chapman & Hall/CRC Texts in Statistical Science

This book emphasizes the phenomenal roles of regression in modeling various dependencies using the twin principles of parsimony and regularization as a guide. The methodologies are illustrated using genuine datasets. A companion R package recode is specifically designed to complement the book's content, featuring real-world and simulated datasets along with a variety of functions to implement and visualize the concepts and results. The book, together with its accompanying R package, helps to bridge the gap between theory and practice, providing the tools one needs to apply advanced and some state-of-the-art statistical methods to real-world scenarios.

Chapman and Hall/CRC

Market: Statistics

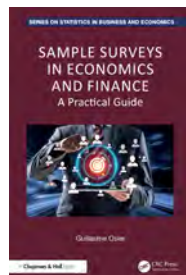
August 2026: 234x156: 404pp: 64 illus, 2 halftones, 62 line drawings

Hb: 978-1-041-06695-8: **£115.00**

★ For full contents and more information, visit: www.routledge.com/9781041066958

Sample Surveys in Economics and Finance

A Practical Guide



Guillaume Osier

Series: Chapman and Hall/CRC Series on Statistics in Business and Economics

This book provides a practical guide to survey work from design to analysis and presents the theoretical foundations of probability-based sampling and inference, while emphasising the real constraints of survey operations budget, time, staffing and respondent burden. It is intended for readers who need both methodological grounding and workable approaches for producing accurate estimates in statistical practice.

Chapman and Hall/CRC

Market: Statistics

August 2026: 234x156: 304pp: 42 illus, 1 halftone, 41 line drawings

Pb: 978-1-041-11247-1: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781041112471

TEXTBOOK

Statistical Practice for Data Science

With Hands-On Illustrations Using R



Nalini Ravishanker, University of Connecticut, Storrs, USA, **Asha Gopalakrishnan** and **Haim Bar**

This book bridges the gap between theoretical concepts and practical applications, offering a clear and accessible introduction to statistics with minimal mathematical prerequisites. With a focus on real-world datasets and hands-on implementation using R, it empowers students to analyze, interpret, and communicate data effectively. Designed as a one-semester course, the book provides flexibility for instructors to tailor the content to their curriculum. This book is a practical companion for aspiring data scientists seeking to master statistical practice and R programming.

Chapman and Hall/CRC

Market: Statistics

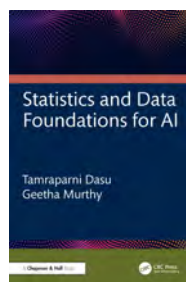
August 2026: 254x178: 282pp: 48 illus, 48 line drawings

Pb: 978-0-367-69874-4: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9780367698744

TEXTBOOK

Statistics and Data Foundations for AI



Tamraparni Dasu and **Geetha Murthy**

Statistics and Data Foundations for AI is an interdisciplinary approach to statistical concepts and data foundations of AI with real-world illustrative examples from authoritative sources such as NASA, NOAA and the US Census Bureau. Co-authored by a data science research expert and an experienced educator, the book serves as a prequel to an AI and machine learning course. It is intended for undergraduate and graduate students, and practitioners interested in learning statistical foundations in relation to data and AI with real-world applications. The content is accessible for a wide variety of backgrounds (STEM and non-STEM) without sacrificing rigor.

Chapman and Hall/CRC

Market: Computer Science

July 2026: 254x178: 270pp: 124 illus, 124 halftones

Pb: 978-1-041-00641-1: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781041006411



The Art of Data Visualization with ggplot2

The TidyTuesday Cookbook



Nicola Rennie, Lancaster University, U.K.

This book is aimed at those who wish to develop their data visualization skills in R. Readers of this book may find a basic knowledge of R, more specifically of the tidyverse ecosystem, useful - although all code used in examples is fully explained. Readers do not need to be experienced in ggplot2, though this book will also be of interest to those who are. This book will also be of interest to those who are already familiar with R (including ggplot2), and wish to develop their skills in designing data visualizations further. It will also interest those who already design data visualizations using other tools, and want to learn how to do the equivalent in R.

Chapman and Hall/CRC

Market: Statistics

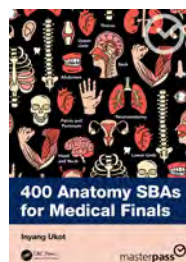
September 2026: 234x156: 392pp: 132 illus, 25 halftones, 107 line drawings

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TEXTBOOK

400 Anatomy SBAs for Medical Finals



Inyang Ukot

Series: MasterPass

This dynamic tool designed to transform the way medical students and professionals approach Anatomy, blends foundational concepts with real-world clinical relevance. This book bridges the gap between preclinical learning and practical application. The MCQs challenge critical thinking, and the inclusion of clinical cases and progressive difficulty levels ensure readers master Human Anatomy and appreciate its indispensable role in diagnosis and patient management. Perfect for students, residents, and practicing physicians to build confident and informed medical practice globally.

CRC Press

Market: Medicine

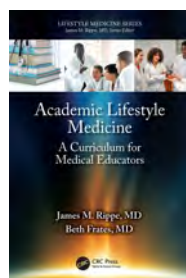
August 2026: 246x174: 236pp

Pb: 978-1-041-30845-4: **£24.99**

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Academic Lifestyle Medicine

A Curriculum for Medical Educators



James M. Rippe, Professor of Medicine, University of Massachusetts Medical School and **Beth P. Frates**

Series: Lifestyle Medicine

Authored by renowned cardiologist and lifestyle medicine researcher, Dr. James Rippe and lifestyle medicine education and behavioral medicine expert, Dr. Beth Frates, *Academic Lifestyle Medicine: A Curriculum for Medical Educators* blends state of the art information on the robust medical literature supporting lifestyle medicine with an innovative approach to medical education.

CRC Press

Market: Medicine

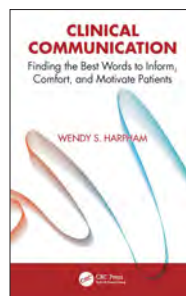
September 2026: 254x178: 442pp: 34 illus, 11 halftones, 23 line drawings

Pb: 978-1-041-03795-8: **£52.99**

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Clinical Communication

Finding the Best Words to Inform, Comfort, and Motivate Patients



Wendy S. Harpham

Communication is a core clinical competency, one that shapes patients trust, understanding, and healing. This engaging book provides a master class on expressing compassion in clinician-patient interactions. Using intimate stories, practical insights, and memorable tips, *Clinical Communication* encourages clinicians and learners at all levels to appreciate the power of their words to inform, comfort, and motivate patients. Award-winning writer Dr. Wendy Harpham mines her experiences as both a physician and survivor of life-threatening illnesses to explore clinical scenarios that carry risks of miscommunication, and provide recommendations for beneficial outcomes.

CRC Press

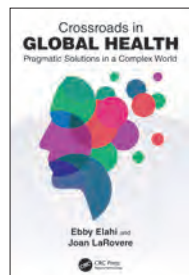
September 2026: 229x152: 190pp: 1 illus, 1 line drawing

Pb: 978-1-041-25030-2: **£29.99**

★ For **full contents** and more information, visit: www.routledge.com/9781041250302

Crossroads in Global Health

Pragmatic Solutions in a Complex World



Ebby Elahi and Joan LaRovere

This accessible and thought-provoking new book serves as a critical assessment of the state of global health philanthropy, as well as a commentary on the philosophy of philanthropy and the real-world impact it can have on recipients and volunteers. *Crossroads in Global Health* seeks to shed light on these issues. Complementing existing global health resources by the same author, including *World Compendium of Healthcare Facilities and Nonprofit Organizations*, this book will be of interest to a wide array of readers including medical practitioners, academics, and those in the non-profit, public and private sectors providing international aid and healthcare around the globe.

CRC Press

Market: Medicine

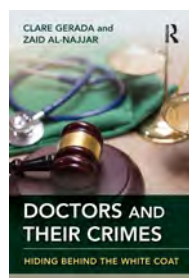
November 2026: 234x156: 218pp: 19 illus, 10 halftones, 9 line drawings

Pb: 978-1-032-41768-4: **£29.99**

★ For full contents and more information, visit: www.routledge.com/9781032417684

Doctors and Their Crimes

Hiding Behind the White Coat



Clare Gerada, Royal College of General Practitioners, UK and **Zaid Al-Najjar**

Doctors and Their Crimes is a compelling, meticulously researched exploration of doctors who commit criminal acts. Written by two experienced general practitioners, the book examines high-profile cases of medical malpractice, fraud, manslaughter, sexual misconduct and abuse of power. Combining forensic analysis with professional insight, it reveals how these crimes unfold within the trusted structures of healthcare, where authority and access can be misused. An essential resource for healthcare professionals, academics and general readers alike, the book delivers a thought-provoking examination of the ethical complexities and societal implications of professional misconduct.

CRC Press

October 2026: 234x156: 220pp

Pb: 978-1-041-31861-3: **£26.99**

★ For full contents and more information, visit: www.routledge.com/9781041318613

TEXTBOOK

Health Research Translation

Making Science Useful for Practicing Evidence-based Medicine



Khalid S. Khan

This book focuses on how research translation can be maximised to make evidence-based medicine (EBM) truly achievable, filling the gap between advances in medical research and clinical practice. By consolidating the various related ideas in the translation journey, starting with citizen involvement in science all the way through to knowledge transfer, this unique book provides invaluable guidance to a variety of individuals involved in EBM. It will stimulate debate among masters and doctoral students undertaking courses in EBM and related areas, and will be of value to biomedical researchers, systematic reviewers, and healthcare professionals including doctors and nurses.

CRC Press

Market: Medicine

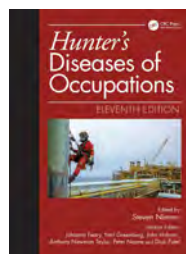
August 2026: 234x156: 194pp: 23 illus, 23 line drawings

Pb: 978-1-041-10608-1: **£34.99**

★ For full contents and more information, visit: www.routledge.com/9781041106081

11th Edition

Hunter's Diseases of Occupations



Edited by **Anthony Newman Taylor, Peter Noone, Dipti Patel, Steven Nimmo, Johanna Feary, Neil Greenberg and John Hobson**

In the seven decades since its first publication, this award-winning text has remained the pre-eminent reference on diseases caused by work, universally recognised as the most authoritative source of information in the field. It remains an essential clinical resource, offering comprehensive coverage of a wide range of diverse topics from asbestos-related diseases, bioterrorism and major chemical incidents to employee wellness and working under the sea and at altitude, many of which are

increasingly relevant in today's occupational health landscape. The Eleventh Edition has been fully revised and updated under a new and expanded team of expert editors and international contributors.

CRC Press

December 2026: 280x210: 1340pp: 368 illus, 169 halftones, 199 line drawings

Hb: 978-1-032-58283-2: **£200.00**

Prev. Ed Hb: 978-0-340-94166-9

★ For full contents and more information, visit: www.routledge.com/9781032582832

Medical Tourism

A Sustainable Approach for the Digital Era



Mohamed Imam, Moataz Kamel and Atef Hassan

This groundbreaking book challenges the status quo of medical tourism, shifting the focus from competition and volume to what truly matters: value, safety and accountability. It explores the realities of cross-border care, from the motivations behind patient travel to the complex web of facilitators, insurers and providers that shape the journey. Written for clinicians, managers, facilitators, insurers, policymakers and patients, this book provides actionable insights, emphasizing environmentally friendly practices, ethical considerations and high-quality patient care needed to transform medical tourism into transnational healthcare that prioritizes outcomes over promises.

CRC Press

Market: Medicine

November 2026: 234x156: 240pp: 15 illus, 15 line drawings

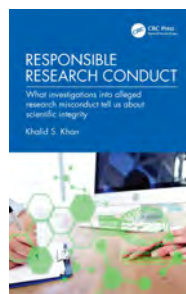
Pb: 978-1-041-15438-9: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041154389

TEXTBOOK

Responsible Research Conduct

What Investigations into Alleged Research Misconduct Tell Us About Scientific Integrity



Khalid S. Khan

This book addresses the growing disillusionment and cynicism about irresponsible and unprofessional practices by researchers, academic institutions and medical publishers. Providing an in-depth analysis of publicly available reports of research misconduct investigations, all meticulously collated by the author over the past five years, *Research Conduct* targets specific research integrity concerns, providing updated recommendations for research integrity guidelines. Showing individuals and organisations how to learn from mistakes and improve the research integrity culture, it will be invaluable to students, researchers and systematic reviewers.

CRC Press

Market: Medicine

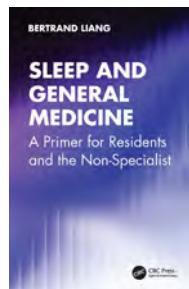
November 2026: 234x156: 230pp: 6 illus, 6 line drawings

Pb: 978-1-041-10602-9: **£36.99**

★ For full contents and more information, visit: www.routledge.com/9781041106029

Sleep and General Medicine

A Primer for Residents and the Non-Specialist



Bertrand Liang

Going beyond typical sleep medicine guidance, this practical resource demonstrates how sleep medicine intersects with every area of clinical practice. From sleep architecture fundamentals to managing sleep disorders across cardiology, neurology, psychiatry, pulmonology, and beyond, it provides essential practical knowledge. Topics include obstructive sleep apnea with heart failure, circadian rhythm disorders in shift workers, and sleep's impact on recovery and ICU delirium. Complete with case studies and reference tables, this resource helps medical professionals across all specialties better understand and address sleep-related issues. Ideal for residents and practicing physicians.

CRC Press

Market: Medicine

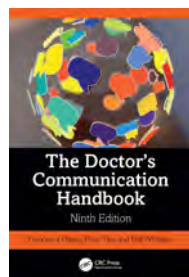
December 2026: 234x156: 272pp

Pb: 978-1-041-31446-2: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041314462

9th Edition

The Doctor's Communication Handbook



Francesca Frame, Peter Tate and Phil Whitaker

This essential text for doctors in both general practice and hospital medicine has established itself as the ultimate guide to patient communication. Highly respected and acclaimed for its light, conversational tone, this ninth edition, completely updated and expanded by the current authors, is revised for a broader audience to include any allied health professionals consulting with patients across the NHS and other healthcare systems. *The Doctor's Communication Handbook* continues to provide an invaluable 'one stop shop' to help students, practicing doctors, nurses and other healthcare practitioners value and improve their skills in this critical area of practice.

CRC Press

Market: Medicine

November 2026: 234x156: 136pp: 2 illus, 2 line drawings

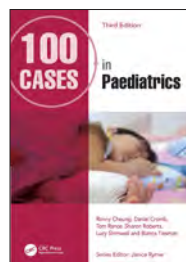
Pb: 978-1-041-10966-2: **£29.99**

Prev. Ed Pb: 978-0-367-19822-0

★ For full contents and more information, visit: www.routledge.com/9781041109662

TEXTBOOK • 3rd Edition

100 Cases in Paediatrics



Ronny Cheung, BMBCh MA MRCPCH PgDipMedEd
Consultant Paediatrician, Evelina Children's Hospital, London, UK, **Daniel Cromb**, **Tom Rance**, **Sharon Roberts**,
Lucy Shimwell and **Bianca Tiesman**

Series: 100 Cases

100 Cases in Paediatrics presents 100 scenarios commonly seen in children by medical students and junior doctors in hospital and community settings. A succinct summary of the patient's history, examination and any initial investigations is followed by questions on the diagnosis and management of each case. The answer includes a detailed discussion on each topic, providing

an essential revision aid as well as a practical guide for students and resident doctors. These true-to-life cases will teach students and residents to recognize important medical conditions in children, and to develop their diagnostic and management skills.

CRC Press

July 2026: 246x174: 362pp: 35 illus, 24 halftones, 11 line drawings

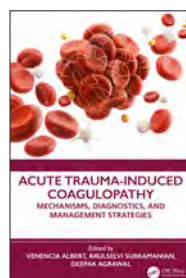
Pb: 978-1-041-16725-9: **£31.99**

Prev. Ed Pb: 978-1-4987-4723-3

★ For full contents and more information, visit: www.routledge.com/9781041167259

Acute Trauma-Induced Coagulopathy

Mechanisms, Diagnostics, and Management Strategies



Edited by **Venencia Albert**, **Arulselvi Subramanian** and **Deepak Agrawal**

Trauma-induced coagulopathy (TIC), is a life-threatening complication affecting severely injured patients. This text covers TIC's pathophysiology, risk factors, TBI-associated coagulopathy, diagnostic tools, transfusion prediction scores, and management strategies along with insights into cutting-edge diagnostic approaches. Looking towards the future, it discusses emerging innovations in trauma care and concludes with valuable lessons from a retrospective analysis offering both regional perspective and global implications for improving trauma care protocols and patient survival for clinicians, trauma surgeons, emergency physicians, and healthcare researchers.

CRC Press

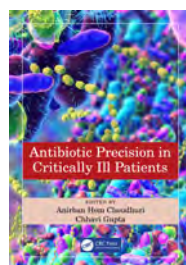
Market: Medicine

July 2026: 234x156: 218pp: 36 illus, 11 halftones, 25 line drawings

Pb: 978-1-041-17406-6: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041174066

Antibiotic Precision in Critically Ill Patients



Edited by **Anirban Hom Choudhuri**, GIPMER, ND and **Chhavi Gupta**

The success of antibiotic therapy depends on precision. A thorough knowledge of the pharmacokinetic and pharmacodynamic principles of antimicrobials and their alterations in different disease states is essential to achieve this. This book provides an in-depth understanding of the complex mechanisms regulating such alterations and guides the right antimicrobial usage in the right dosage and route. Supported by case-based scenarios depicting real-life challenges incorporated in every chapter, this book is essential reading material for postgraduate students of medicine and allied

branches, microbiology, critical care and infectious diseases.

CRC Press

Market: Medicine

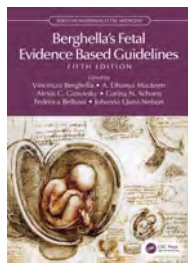
November 2026: 254x178: 192pp: 13 illus, 8 halftones, 5 line drawings

Pb: 978-1-041-05211-1: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041052111

5th Edition

Berghella's Fetal Evidence Based Guidelines



Edited by **Vincenzo Berghella, A. Dhanya Mackeen, Alexis C. Gimovsky, Corina N. Schoen, Federica Bellussi and Johanna Quist-Nelson**

Series: Series in Maternal-Fetal Medicine

This new edition of an acclaimed text reviews the evidence for best practice in Maternal-Fetal and Obstetric Medicine, to present the reader with the right information, with appropriate use of proven interventions and avoidance of ineffectual or harmful ones. The information is presented in the right format by summarizing evidence succinctly and clearly in tables and algorithms. The aim is to inform the clinician, to reduce errors and "to make it easy to do it right."

CRC Press

Market: Obstetrics & Gynecology

November 2026: 280x210: 232pp: 75 illus, 39 halftones, 36 line drawings

Hb: 978-1-032-99141-2: **£150.00**

★ For full contents and more information, visit: www.routledge.com/9781032991412

5th Edition

Berghella's Maternal Evidence Based Guidelines



Edited by **Vincenzo Berghella, A. Dhanya Mackeen, Alexis C. Gimovsky, Corina N. Schoen, Federica Bellussi and Johanna Quist-Nelson**

Series: Series in Maternal-Fetal Medicine

This new edition of an acclaimed text reviews the evidence for best practice in Maternal-Fetal and Obstetric Medicine, to present the reader with the right information, with appropriate use of proven interventions and avoidance of ineffectual or harmful ones. The information is presented in the right format by summarizing evidence succinctly and clearly in tables and algorithms. The aim is to inform the clinician, to reduce errors and "to make it easy to do it right."

CRC Press

Market: Obstetrics & Gynecology

November 2026: 280x210: 584pp: 75 illus, 12 halftones, 62 line drawings

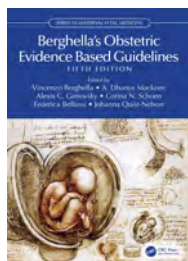
Hb: 978-1-032-99137-5: **£150.00**

Prev. Ed Hb: 978-0-367-56702-6

★ For full contents and more information, visit: www.routledge.com/9781032991375

5th Edition

Berghella's Obstetric Evidence Based Guidelines



Edited by **Vincenzo Berghella, Jefferson Medical College of Thomas Jefferson University, Philadelphia, PA, USA, A. Dhanya Mackeen, Alexis C. Gimovsky, Corina N. Schoen, Federica Bellussi and Johanna Quist-Nelson**

Series: Series in Maternal-Fetal Medicine

This new edition of an acclaimed text reviews the evidence for best practice in Maternal-Fetal and Obstetric Medicine, to present the reader with the right information, with appropriate use of proven interventions and avoidance of ineffectual or harmful ones. The information is presented in the right format by summarizing evidence succinctly and clearly in tables and algorithms. The aim is to inform the clinician, to reduce errors and "to make it easy to do it right."

CRC Press

Market: Medicine

November 2026: 280x210: 472pp: 104 illus, 31 halftones, 73 line drawings

Hb: 978-1-032-99134-4: **£150.00**

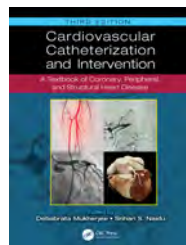
Prev. Ed Hb: 978-0-367-60877-4

★ For full contents and more information, visit: www.routledge.com/9781032991344

3rd Edition

Cardiovascular Catheterization and Intervention

A Textbook of Coronary, Peripheral, and Structural Heart Disease



Edited by **Debabrata Mukherjee, University of Kentucky, Lexington, USA and Srihari S. Naidu**

Interventional cardiology has evolved dramatically over the past decade, and this new edition addresses recent advances in coronary, structural, congenital and endovascular arenas. New chapters cover mechanical circulatory support devices including cardiogenic shock, intravascular lithotripsy and calcified lesion management, endovascular therapy for pulmonary embolism, and percutaneous therapies for tricuspid and pulmonary valve disease. Features evidence-based discussion on patient selection, vascular access, intervention principles, and optimal post-procedure management, making it a practical reference guide for clinicians.

CRC Press

Market: Medicine

August 2026: 280x210: 840pp: 582 illus, 502 halftones, 80 line drawings

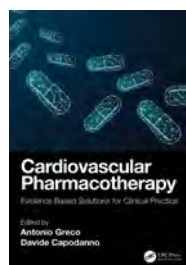
Hb: 978-1-032-82326-3: **£200.00**

Prev. Ed Hb: 978-1-4987-5019-6

★ For full contents and more information, visit: www.routledge.com/9781032823263

Cardiovascular Pharmacotherapy

Evidence-Based Solutions for Clinical Practice



Edited by **Antonio Greco and Davide Capodanno**

This comprehensive guide to cardiovascular pharmacotherapy provides a clinically oriented overview of drugs in the field of cardiology. Written for healthcare professionals, it integrates latest evidence with clinical decision-making. The book emphasizes practical, evidence-based approaches to drug use, featuring step-by-step therapeutic algorithms to support everyday clinical practice.

CRC Press

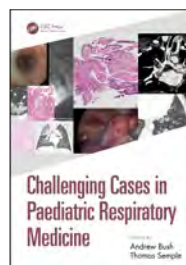
Market: Medicine

August 2026: 254x178: 228pp: 40 illus, 15 halftones, 25 line drawings

Pb: 978-1-041-07845-6: **£59.99**

★ For full contents and more information, visit: www.routledge.com/9781041078456

Challenging Cases in Paediatric Respiratory Medicine



Edited by **Andrew Bush, Imperial College, London and Thomas Semple**

Series: Challenging Cases

When a few doctors get together, they always start discussing their fascinating cases, and one can learn a lot from the diagnostic journey, including the blind alleys, taken by others. Yet case report publications are rare because they are not cited. These challenging cases in paediatric respiratory medicine from all around the world, are chosen to illustrate important learning points. The format is a case scenario followed by the diagnosis, learning points, and brief background material, with references for further reading.

CRC Press

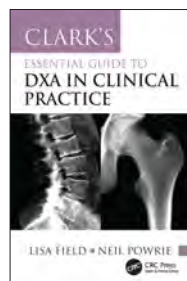
Market: Medicine

August 2026: 254x178: 158pp: 118 illus, 114 halftones, 4 line drawings

Pb: 978-1-032-96301-3: **£59.99**

★ For full contents and more information, visit: www.routledge.com/9781032963013

Clark's Essential Guide to DXA in Clinical Practice



Lisa Field and Neil Powrie

Series: Clark's Companion Essential Guides

This easy-to-understand guide in the highly respected Clark's stable of diagnostic imaging texts is an essential handbook for day-to-day work in DXA scanning, providing clear and practical advice to help both experienced practitioners and those new to the modality at both undergraduate and postgraduate levels. Coverage encompasses bone mineral density (BMD) and body composition analysis (BCA), providing an essential reference point for any DXA operator to achieve the best possible standard of care utilizing the most up-to-date techniques.

CRC Press

Market: Radiography

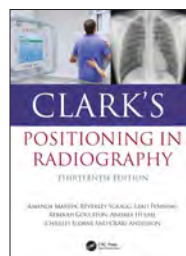
September 2026: 198x129: 240pp: 100 illus, 85 halftones, 15 line drawings

Pb: 978-1-032-15917-1: **£32.99**

★ For full contents and more information, visit: www.routledge.com/9781032159171

TEXTBOOK • 14th Edition

Clark's Positioning in Radiography



Amanda Martin, Charles Sloane, University of Cumbria, Craig Anderson, Beverley Scragg, Leah Fenning, Rebekah Goulston and Andrea Hulme

Illustrated by **Ruth Eaves**

First published in 1939, *Clark's Positioning in Radiography* is the preeminent text on radiographic positioning technique. Whilst retaining the clear and easy-to-follow structure of the previous edition, the fourteenth edition has been updated to focus on positioning and to align with current radiographic standards and the changing roles of radiographers in modern clinical practice.

By integrating evidence-based guidelines and drawing on real world experience, the book provides clear, practical guidance that empowers radiographers to achieve optimal imaging outcomes while prioritizing patient safety and comfort.

CRC Press

Market: Radiography

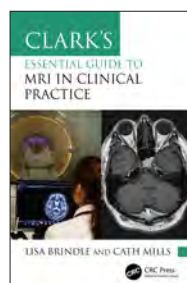
September 2026: 280x210: 606pp: 1261 illus, 1237 halftones, 24 line drawings

Hb: 978-1-041-24696-1: **£130.00**

Prev. Ed Hb: 978-1-4441-2235-0

★ For full contents and more information, visit: www.routledge.com/9781041246961

Clark's Essential Guide to MRI in Clinical Practice



Lisa Brindle and Cath Mills

Series: Clark's Companion Essential Guides

This easy-to-understand guide in the highly respected Clark's stable of diagnostic imaging texts is an essential handbook for daily practice in magnetic resonance imaging, providing clear and practical advice to help both experienced practitioners and those new to the modality at both undergraduate and postgraduate levels. The book provides guidance on general procedures in MRI, summarising current relevant literature and professional body guidelines. *Clark's Essential Guide to MRI* takes the systematic approach of the Clark's family, introducing readers to techniques from first principles and covering MRI by body region with selected images demonstrating positioning techniques.

CRC Press

Market: Medicine

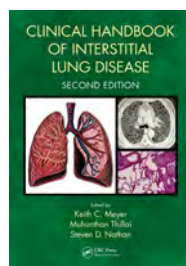
August 2026: 198x129: 206pp: 344 illus, 336 halftones, 8 line drawings

Pb: 978-1-032-13629-5: **£36.99**

★ For full contents and more information, visit: www.routledge.com/9781032136295

2nd Edition

Clinical Handbook of Interstitial Lung Disease



Edited by **Keith C. Meyer, MD, MS University of Wisconsin, Madison, USA, Muhunthan Thillai, MBBS, MRCP, PhD Papworth Hospital, Cambridge, UK and Steven D. Nathan**

The 2nd Edition of *The Clinical Handbook of Interstitial Lung Disease* is an update of the 1st Edition and provides a comprehensive guide for practicing physicians and other health care providers who are involved in the diagnosis and management of diverse forms of Interstitial Lung Disease (ILD). Key global opinion leaders in respiratory medicine have drawn on their knowledge and experience to generate an authoritative, comprehensive, and concise guidebook for use in clinical settings and clinical research.

CRC Press

Market: Medicine

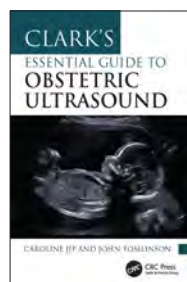
July 2026: 254x178: 498pp: 112 illus, 100 halftones, 12 line drawings

Pb: 978-1-032-58731-8: **£166.99**

Prev. Ed Pb: 978-1-4987-6825-2

★ For full contents and more information, visit: www.routledge.com/9781032587318

Clark's Essential Guide to Obstetric Ultrasound



Caroline Jip and John Tomlinson

Series: Clark's Companion Essential Guides

This easy-to-understand pocketbook in the highly respected Clark's stable of diagnostic imaging texts is an invaluable tool for sonographers in training and in practice, and for midwives, obstetricians, radiologists and other ultrasound practitioners, providing practical guidance on obstetric ultrasound procedures, summarising current relevant literature. Written by specialists in obstetric ultrasound, each chapter is abundantly illustrated and contains details of patient preparation, imaging technique and image acquisition. Current clinical practice guidelines are used to incorporate the best available evidence for the imaging and

management of patients.

CRC Press

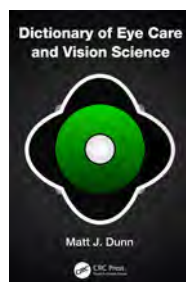
Market: Medicine

November 2026: 198x129: 234pp: 208 illus, 165 halftones, 43 line drawings

Pb: 978-1-041-00977-1: **£34.99**

★ For full contents and more information, visit: www.routledge.com/9781041009771

Dictionary of Eye Care and Vision Science



Matt J. Dunn

Technical terminology in eye care and vision sciences can be challenging to navigate, particularly in busy clinical and academic contexts. Dunn's *Dictionary of Eye Care and Vision Science* is a concise quick-reference glossary covering topics including ocular anatomy and physiology, optics, clinical techniques, pathology, low vision, orthoptics, perception, and psychophysics, as well as contemporary clinical and research terminology. Focusing on specialised terminology, this dictionary is valuable to students, clinicians and researchers across optometry, ophthalmology, orthoptics and vision science, as well as related fields including medical education and visual rehabilitation.

CRC Press

Market: Medicine

October 2026: 234x156: 300pp

Pb: 978-1-041-33706-5: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041337065

Dotphrase Templates for Maternal-Fetal Medicine

Management Protocols and Documentation in the Electronic Medical Record System



Edited by **Elias Kassir** and **Rachel A. Newman**

When a certain problem or clinical scenario is frequently encountered, using dotphrases templates for specific problems can help ease the documentation burden while still ensuring high-quality care and documentation, which is of crucial importance in today's medicolegal landscape. This collection of dotphrases is based on different problems that an MFM clinician is likely to encounter in their practice, whether that involves outpatient prenatal care, ultrasounds, L&D, or the antepartum service. Backed up with the latest recommendations based on current literature, these templates can be easily adapted and tailored for the particular circumstances of each outpatient encounter.

CRC Press

Market: Gynecology

September 2026: 254x178: 330pp

Pb: 978-1-041-27329-5: **£70.99**

★ For full contents and more information, visit: www.routledge.com/9781041273295

Enhancing Medical Education Using AI



Edited by **Jason Liebowitz**, Assistant Professor of Medicine Columbia University Vagelos College of Physicians and Surgeons New York, NY, **Marcy B. Bolster** and **Philip Seo**, Johns Hopkins University School of Medicine, Baltimore, USA
Series: AI in Clinical Practice

The use of Artificial Intelligence (AI) in medicine can deliver significant improvements in the delivery of health care. As clinicians learn more about the technology and grow alongside it, so too will new methods of using and analyzing clinical data emerge. Medical education encompasses many levels: medical school, internship, residency, fellowship, and continuing medical education. At each of these levels, AI is, and will, revolutionize the

way that health care providers learn, teach, and share information. This book is the first of its kind to explore the potential ways in which AI may specifically transform medical education across the globe.

CRC Press

Market: Medicine

October 2026: 234x156: 240pp: 12 illus, 2 halftones, 10 line drawings

Pb: 978-1-041-03304-2: **£39.99**

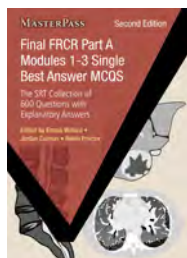
★ For full contents and more information, visit: www.routledge.com/9781041033042

2nd Edition

Final FRCR Part A Modules 1-3

Single Best Answer MCQs

The SRT Collection of 600 Questions with Explanatory Answers



Edited by **Emma Watura** and **Jordan Colman**

Series: MasterPass

The Royal College of Radiologists Final FRCR Part A examination uses single best answer (SBA) questions to test a candidate's knowledge of clinical radiology. This book of 600 SBA questions and explanatory answers aims to help candidates prepare for the exam, covering a broad range of topics, appropriate for the examination. Questions are grouped by topic, and each topic is split into three papers of 60 questions. A 60-question mixed-topic paper is also included to closely replicate the style of the exam. This is a companion volume to *Final FRCR Part A Modules 4-6 Single Best*

Answer MCQs, Second Edition, coordinated through The Society of Radiologists in Training (SRT).

CRC Press

Market: Medicine

November 2026: 246x174: 232pp

Pb: 978-1-032-76330-9: **£52.99**

Prev. Ed Pb: 978-1-84619-363-7

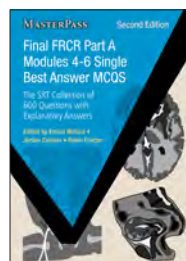
★ For full contents and more information, visit: www.routledge.com/9781032763309

2nd Edition

Final FRCR Part A Modules 4-6

Single Best Answer MCQs

The SRT Collection of 600 Questions with Explanatory Answers



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Series: MasterPass

The Royal College of Radiologists Final FRCR Part A examination consists of two 3-hour papers with 120 single best answer (SBA) questions each. This book of 600 SBA questions and explanatory answers is designed to help candidates prepare for the exam, considering the breadth and depth of clinical radiology knowledge expected. Each topic is split into three 60-question papers and one mixed-topic paper to closely replicate the style of the exam. A bibliography of useful references is also included for further reading. This is a companion volume to *Final FRCR Part A Modules 1-3 Single Best Answer MCQs, Second Edition*, coordinated through The Society of Radiologists in Training (SRT).

CRC Press

Market: Medicine

December 2026: 246x174: 248pp

Pb: 978-1-032-76332-3: **£52.99**

Prev. Ed Pb: 978-1-84619-364-4

★ For full contents and more information, visit: www.routledge.com/9781032763323

Future Perspectives in Primary Care Research



Edited by **Mehmet Akman**, **Bob Mash** and **Felicity Goodyear-Smith**

Series: WONCA Family Medicine

This book explores the current developments and future directions of primary care research, emphasising innovative approaches, methodologies and technologies that are shaping the field. The content examines the scope of primary care research in various contexts, including emerging trends in primary care research and recent innovations such as digitalisation, providing practical insights into the application of advanced research methods. A comprehensive guide for researchers, practitioners and policymakers, it will be an essential

tool for those looking to enhance their research skills, foster interdisciplinary collaborations and contribute to the global advancement of primary care.

CRC Press

Market: Medicine

July 2026: 246x174: 290pp: 18 illus, 3 halftones, 15 line drawings

Pb: 978-1-041-09850-8: **£34.99**

★ For full contents and more information, visit: www.routledge.com/9781041098508

Hair and Scalp Disorders Associated with Hair Care Practices



Edited by **Kelati Awatef** and **Antonella Tosti**

Series: Series in Dermatological Treatment

Hair care practices can often cause problems for the hair and scalp. In this text international experts examine the practices and products in use and their short-term and long-term effects, as well as the most useful guidance for medical professionals trying to manage a patient's problems.

CRC Press

Market: Dermatology

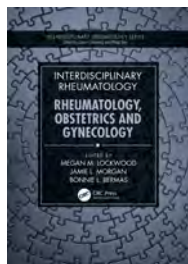
July 2026: 254x178: 218pp: 165 illus, 162 halftones, 3 line drawings

Pb: 978-1-041-00191-1: **£74.99**

★ For full contents and more information, visit: www.routledge.com/9781041001911

Interdisciplinary Rheumatology

Rheumatology, Obstetrics, and Gynecology



Edited by **Megan M. Lockwood, Jamie L. Morgan and Bonnie L. Bermas**

Series: *Interdisciplinary Rheumatology*

Interdisciplinary Rheumatology: Rheumatology, Obstetrics and Gynecology is an essential resource bringing clarity and evidence to complex rheumatologic care. Written by leading experts across medicine, pediatrics, obstetrics, immunology, ethics, and law, this volume provides a unified roadmap for managing reproductive health in patients with chronic rheumatic disease. From contraception to menopause, it translates cutting-edge science into practical, patient-centered guidance for confident clinical decision-making.

CRC Press

Market: Medicine

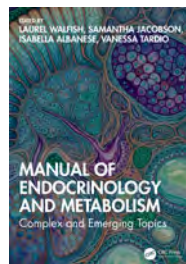
July 2026: 254x178: 182pp: 6 illus, 6 line drawings

Pb: 978-1-032-60940-9: **£52.99**

★ For **full contents** and more information, visit: www.routledge.com/9781032609409

Manual of Endocrinology and Metabolism

Complex and Emerging Topics



Edited by **Laurel Walfish, Samantha Jacobson, Isabella Albanese and Vanessa Tardio**

This evidence-based resource distills complex endocrine topics, including diabetes, thyroid disorders, adrenal and pituitary conditions, bone metabolism, and reproductive endocrinology, into practical, high-yield information in a concise, accessible format. Designed for both quick reference in clinical settings and efficient exam preparation, it integrates recent diagnostic and therapeutic advances with core principles, addressing endocrine care across diverse populations, including pregnancy and rare syndromes. This manual is invaluable for trainees mastering fundamentals and experienced clinicians seeking

updated management strategies.

CRC Press

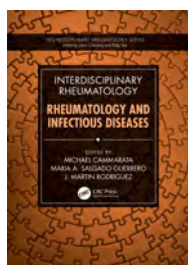
Market: Medicine

December 2026: 254x178: 232pp: 56 illus, 39 halftones, 17 line drawings

Pb: 978-1-041-22212-5: **£69.99**

★ For **full contents** and more information, visit: www.routledge.com/9781041222125

Interdisciplinary Rheumatology: Rheumatology and Infectious Diseases



Edited by **Michael Cammarata, Maria Salgado Guerrero and J. Martin Rodriguez**

Series: *Interdisciplinary Rheumatology*

Rheumatologists frequently confront infections that complicate, mimic, or arise from the treatment of autoimmune disease, demanding careful distinction from disease flare and thoughtful management of immunosuppression. Infectious disease specialists express a reciprocal need: deepening their understanding of immune dysregulation, immunomodulatory therapies, and the systemic manifestations that shape outcomes in rheumatic disease.

CRC Press

Market: Medicine

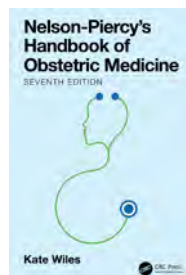
October 2026: 254x178: 188pp: 10 illus, 10 halftones

Pb: 978-1-041-04488-8: **£52.99**

★ For **full contents** and more information, visit: www.routledge.com/9781041044888

7th Edition

Nelson-Piercy's Handbook of Obstetric Medicine



Kate Wiles and Catherine Nelson-Piercy

This new edition of a well-established reference handbook remains an essential on-the-spot guide for obstetricians, physicians, general practitioners, and midwives in both practice and training; it has been updated throughout, with new material on cancer in pregnancy, use of emerging drugs including biologics, bariatric surgery, and sepsis.

CRC Press

Market: Medicine/Gynaecology

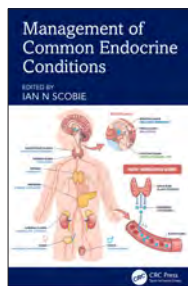
August 2026: 229x152: 446pp: 13 illus, 11 halftones, 2 line drawings

Pb: 978-1-032-56582-8: **£59.99**

Prev. Ed Pb: 978-0-367-34612-6

★ For **full contents** and more information, visit: www.routledge.com/9781032565828

Management of Common Endocrine Conditions



Edited by **Ian N. N. Scobie**

Disorders of the endocrine system can be frequently encountered in all branches of medicine and allied disciplines. This concise, up-to-date book provides seminal information and contemporary guidelines about the current management of the most common endocrine conditions which family physicians, general practitioners and other health care professionals are likely to meet with in clinical practice. The treatment of such conditions may vary from the relatively straightforward to the exceedingly complex as described in each chapter. Reference is also made to rarer endocrine disorders normally managed in specialist centres.

CRC Press

Market: Medicine

September 2026: 216x138: 178pp: 16 illus, 7 halftones, 9 line drawings

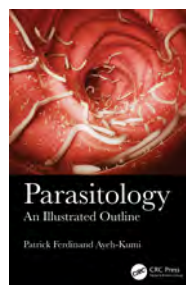
Pb: 978-1-041-01767-7: **£32.99**

★ For **full contents** and more information, visit: www.routledge.com/9781041017677

TEXTBOOK

Parasitology

An Illustrated Outline



Patrick Ferdinand Ayeh-Kumi

This accessible reference provides a comprehensive overview of parasitic organisms, covering their practical applications and fundamental concepts that impact global health and ecosystems. From intricate life cycles to advanced diagnostic techniques, the text illuminates the complex world of parasites through clear explanations and visual learning aids. Designed for students and professionals across continents, it serves as an essential resource for infectious disease and public health practitioners. The book's balanced approach to theory and application makes parasitology accessible to readers at various expertise levels while maintaining scientific rigor and clinical relevance.

CRC Press

Market: Medicine

September 2026: 198x129: 228pp: 38 illus, 7 halftones, 31 line drawings

Pb: 978-1-041-22398-6: **£29.99**

★ For **full contents** and more information, visit: www.routledge.com/9781041223986

3rd Edition

Skin Health Restoration and Rejuvenation

Advancing a Unified Clinical and Procedural Framework in Dermatology, Plastic Surgery, and Aesthetics, Ultimate Edition



Zein E. Obagi

For more than four decades, Dr. Zein Obagi has reshaped the aesthetics industry by redefining skin health through science-based principles and protocols. In this book, he shares the philosophies, research, and clinical insights that transformed modern dermatology and continue to guide physicians and patients toward lifelong, healthy skin. This volume sets the gold standard not only for plastic surgeons, dermatologists and cosmetic facial surgeons, but also for skincare professionals worldwide.

CRC Press

Market: Dermatology

October 2026: 280x210: 402pp: 258 illus, 237 halftones, 21 line drawings

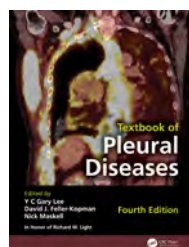
Hb: 978-1-032-61095-5: **£150.00**

Prev. Ed Hb: 978-1-84214-596-8

★ For full contents and more information, visit: www.routledge.com/9781032610955

4th Edition

Textbook of Pleural Diseases



Edited by **Y. C. Gary Lee**, **David J. Feller-Kopman**, **Nick Maskell** and **Richard W. Light**, MD FCCP Professor of Medicine, Vanderbilt University, Nashville, Tennessee, USA

This comprehensive reference book on pleural disease offers the latest insights into both basic and clinical science. Building on the highly respected previous editions, it features an expanded basic science section to deepen understanding of the physiological and pathophysiological mechanisms underlying pleural diseases. The clinical sections are presented in a consistent format, covering definitions, epidemiology, etiology, pathogenesis, clinical presentations, investigations, treatments, and potential

complications for each subtype of pleural disease. This indispensable resource is designed for pulmonary physicians, internists, thoracic surgeons, and trainees worldwide.

CRC Press

Market: Medicine

October 2026: 280x210: 592pp: 184 illus, 168 halftones, 16 line drawings

Hb: 978-1-032-56475-3: **£170.00**

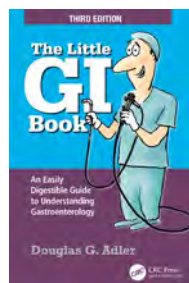
Prev. Ed Hb: 978-1-4822-2250-0

★ For full contents and more information, visit: www.routledge.com/9781032564753

3rd Edition

The Little GI Book

An Easily Digestible Guide to Understanding Gastroenterology



Douglas G. Adler

Freshly updated to its 3rd edition with over 100 color images, tables, and figures, this practical and portable handbook is an essential resource for anyone new to gastroenterology and hepatology. Written in a friendly, conversational style, it covers the latest advancements in the field while providing a comprehensive guide to gastrointestinal anatomy, physiology, diseases, and treatments. Dr. Douglas G. Adler takes readers through the entire GI tract, from the esophagus to the colon, with a special chapter on endoscopy. Perfect for students, residents, and GI industry professionals, this pocket guide is indispensable.

CRC Press

Market: Medicine

September 2026: 198x129: 272pp: 122 illus, 121 halftones, 1 line drawing

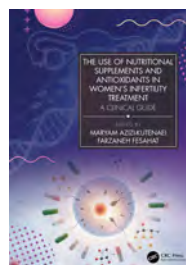
Pb: 978-1-041-14130-3: **£44.99**

Prev. Ed Pb: 978-1-63091-741-8

★ For full contents and more information, visit: www.routledge.com/9781041141303

The Use of Nutritional Supplements and Antioxidants in Women's Infertility Treatment

A Clinical Guide



Edited by **Maryam Azizi-Kutenaie** and **Farzaneh Fesahat**

In recent years, nutritional supplements and antioxidants have been increasingly considered as adjuncts in the management of female infertility. However, the scientific evidence supporting their use remains heterogeneous, and clinical decision-making in this area often lacks clear, evidence-informed guidance. This edited volume aims to provide a clinically oriented overview of the use of nutritional supplements and antioxidants in the treatment of women's infertility.

CRC Press

Market: Gynecology

October 2026: 254x178: 164pp: 14 illus, 14 line drawings

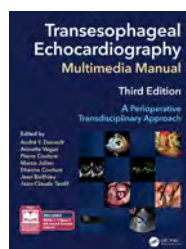
Pb: 978-1-041-23552-1: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041235521

3rd Edition

Transesophageal Echocardiography Multimedia Manual

A Perioperative Transdisciplinary Approach



Edited by **André Y. Denault MD PhD**, **Annette Vegas**, **Pierre Couture**, **Marco Julien**, **Etienne Couture**, **Jean Buithieu** and **Jean-Claude Tardif**

The third edition of the *Transesophageal Echocardiography Multimedia Manual* is a comprehensive resource and essential guide to the rapidly expanding field of perioperative transesophageal echocardiography (TEE), encompassing its role in newer cardiac surgery techniques, diverse interventional procedures, and the intensive care unit. This well-illustrated manual, accompanying videos and self-test questions demonstrate recent developments and challenges for the

anesthesiologist, cardiologist, cardiac surgeon, critical care physician, and those interested in perioperative TEE.

CRC Press

Market: Medicine

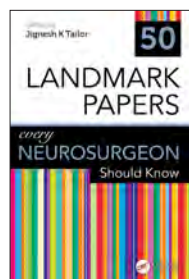
July 2026: 280x210: 902pp: 892 illus, 824 halftones, 68 line drawings

Hb: 978-1-032-42460-6: **£300.00**

Prev. Ed Hb: 978-1-4200-8070-4

★ For full contents and more information, visit: www.routledge.com/9781032424606

50 Landmark Papers every Neurosurgeon Should Know



Edited by **Jignesh Tailor**

Series: *50 Landmark Papers*

This indispensable resource provides a comprehensive guide to the most impactful studies that have shaped the field of neurosurgery. It distils the key findings and clinical relevance of 50 landmark papers across the full spectrum of neurosurgical subspecialties. Designed with the needs of neurosurgery residents, fellows, and junior faculty in mind, this book provides a concise, high-yield format that is ideal for preparing for the ABNS oral board exam, FRCS, and FRCSC certifications. Each chapter is authored by leading experts in the field, offering unique insights into the rationale, methodology, and

clinical impact of these pivotal studies.

CRC Press

Market: Medicine

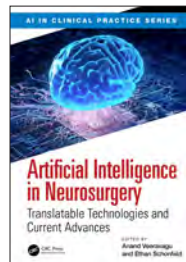
September 2026: 229x152: 302pp: 7 illus, 4 halftones, 3 line drawings

Pb: 978-1-032-53577-7: **£38.99**

★ For full contents and more information, visit: www.routledge.com/9781032535777

Artificial Intelligence in Neurosurgery

Translatable Technologies and Current Advances



Edited by **Anand Veeravagu** and **Ethan Schonfeld**

Series: *AI in Clinical Practice*

This groundbreaking textbook equips neurosurgeons with the foundational knowledge to navigate the complexities of AI in clinical practice. It explores the remarkable progress of AI systems, from machine learning enhanced neuronavigation to agentic systems capable of autonomous, multi-step workflows. With a focus on real-world clinical data, fairness, and interpretability, the book addresses the critical hurdles of evaluation lag, dataset curation, and regulatory oversight.

CRC Press

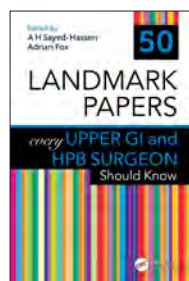
Market: Medicine

October 2026: 254x178: 236pp: 30 illus, 24 halftones, 6 line drawings

Pb: 978-1-032-74837-5: **£74.99**

★ For full contents and more information, visit: www.routledge.com/9781032748375

50 Landmark Papers every Upper GI and HPB Surgeon Should Know



Edited by **A. H. Sayed-Hassen** and **Adrian Fox**

Series: *50 Landmark Papers*

In the ever-evolving field of Upper Gastrointestinal (UGI) and Hepato-Pancreato-Biliary (HPB) surgery, staying informed about the pivotal research that shapes clinical practice is essential. *50 Landmark Papers Every Upper GI and HPB Surgeon Should Know* is a carefully curated collection of influential studies that have transformed decision-making in the management of complex conditions. Organized into focused sections gallbladder, liver, pancreas, stomach, bile duct, oesophagus, endoscopic treatment, obesity, and general topics this book serves as a practical guide for surgeons and trainees alike.

CRC Press

Market: Medicine

October 2026: 229x152: 276pp: 39 illus, 18 halftones, 21 line drawings

Pb: 978-1-032-98121-5: **£38.99**

★ For full contents and more information, visit: www.routledge.com/9781032981215

Clinical Scenarios in Adult Cardiac Surgery



Edited by **Imran Khan** and **Siven Seevanayagam**

This book bridges the gap between conventional casebooks and real-world surgical decision-making to offer a realistic picture of the challenges faced by cardiac surgeons. Formatted to emphasize strategic problem-solving with more complex patients it enhances decision-making abilities with thought-provoking cases and explanations of surgical concepts in routine practice. Addressing both core concepts and complex situations that demand higher-order thinking, *Clinical Scenarios in Adult Cardiac Surgery* is an effective resource for cardiac surgeons and those training in adult cardiac surgery, as well as cardiologists and nurses involved in the care of cardiac surgical patients.

CRC Press

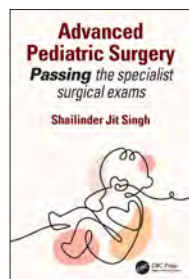
June 2026: 234x156: 240pp: 23 illus, 7 halftones, 16 line drawings

Pb: 978-1-041-16383-1: **£77.99**

★ For full contents and more information, visit: www.routledge.com/9781041163831

Advanced Pediatric Surgery

Passing the specialist surgical exams



Edited by **Shailinder Jit Singh**

A concise revision guide designed to support pediatric surgical residents, fellows and practitioners in mastering the core knowledge required for specialist pediatric surgery exams worldwide. Covering 84 high-yield topics featuring clinical pathways, bullet points and simple line diagrams to facilitate rapid learning and bedside application. Authored by a team of internationally recognized experts with experience across five continents, this book reflects the diversity and shared foundations of pediatric surgical care providing a practical reference for pediatric surgeons and the multidisciplinary team caring for pediatric surgical patients.

CRC Press

Market: Medicine

September 2026: 254x203: 628pp: 321 illus, 168 halftones, 153 line drawings

Pb: 978-1-032-46089-5: **£89.99**

★ For full contents and more information, visit: www.routledge.com/9781032460895

2-Volume Set • 9th Edition

Scott-Brown's Otorhinolaryngology and Head and Neck Surgery



Edited by **Adam Donne** and **Iain Nixon**

Whether you're a resident, fellow, or experienced practitioner, this essential resource provides the depth and breadth of knowledge required for excellence in contemporary ENT practice. Available in both print and digital formats, it combines nearly a century of otolaryngology excellence with contemporary clinical approaches. Perfect for training, examination preparation, and consultant practice, the 9th edition upholds Scott Brown's legacy while embracing modern medical education needs through its concise,

accessible presentation in two streamlined, authoritative volumes that maintain its position as the cornerstone text in ear, nose, and throat surgery.

CRC Press

Market: Medicine

October 2026: 280x210: 2912pp: 2387 illus, 2259 halftones, 128 line drawings

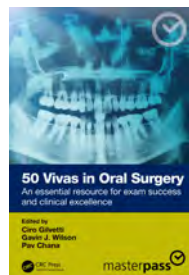
Hb: 978-1-032-53507-4: **£520.00**

Prev. Ed Hb: 978-1-4441-7589-9

★ For full contents and more information, visit: www.routledge.com/9781032535074

50 Vivas in Oral Surgery

An essential resource for exam success and clinical excellence



Edited by **Ciro Gilvetti, Gavin J. Wilson and Pav Chana**
Series: *MasterPass*

50 Vivas in Oral Surgery is a comprehensive viva-style textbook offering 50 real-life clinical scenarios, designed to facilitate preparation for relevant examinations. Each illustrated viva presents a clinical scenario with history and investigations, followed by a series of questions exploring differential diagnoses, treatment planning and management of complex medical conditions. With contributions from leading UK and International specialists, all cases have been peer reviewed by consultants in the specialty, this book is a must-have revision aid for students preparing for specialty exams, board certifications, or seeking to

improve their knowledge in Oral Surgery.

CRC Press

Market: Medicine

November 2026: 234x156: 348pp: 96 illus, 90 halftones, 6 line drawings

Pb: 978-1-041-14233-1: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041142331

Technology in Head & Neck Surgery



Edited by **Abdul Ahmed**

Incorporating the latest insights into developing technologies, this book explores the practical aspects of learning, implementing, and treating patients with these tools in head and neck surgery. This comprehensive volume features detailed explorations into a range of pioneering areas, from robotic surgery to virtual reality and augmented reality. Illustrating the various ways in which new technologies can be practically applied to head and neck surgery, this book will be a valuable tool for practicing head and neck surgeons and students interested in the ways that tech is transforming modern healthcare.

CRC Press

Market: Medicine

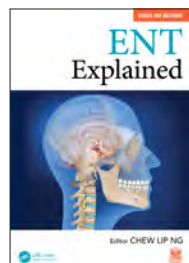
July 2026: 246x174: 246pp: 126 illus, 118 halftones, 8 line drawings

Pb: 978-1-032-73969-4: **£74.99**

★ For full contents and more information, visit: www.routledge.com/9781032739694

TEXTBOOK

ENT Explained



Edited by **Chew Lip Ng**

Associate Editor **Daniel See Rui En, Pamela Lim Tze Xin** and **Ethan Gao Zhi Hao**

Designed for medical students and residents, *ENT Explained* offers a clear, structured approach to understanding and managing ENT conditions. It blends essential knowledge with practical clinical reasoning, giving learners strong diagnostic frameworks they can apply in practice. Through case scenarios, the book demonstrates how ENT conditions unfold in real clinical settings, while its rich collection of photographs sharpens recognition of key findings. A dedicated section on ENT procedures and surgeries provides accessible insights into

operative principles knowledge often difficult to obtain before hands-on experience.

CRC Press

Market: Medicine

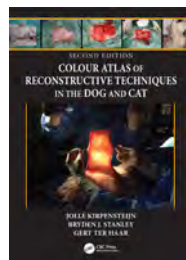
July 2026: 254x178: 448pp: 261 illus, 212 halftones, 49 line drawings

Pb: 978-1-041-02510-8: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041025108

2nd Edition

Colour Atlas of Reconstructive Techniques in the Dog and Cat



Jolle Kirpensteijn, Hills Pet Nutrition, Topeka, Kansas, USA,
Bryden J. Stanley, Michigan State Univ. and **Gert ter Haar**

The new edition of this practical atlas describes and illustrates, step-by-step, all currently available reconstructive surgical techniques. With new real-life cases and detailed sketches, the book covers both dogs and cats with skin defects caused by injury or tumor resection. The reader is given the widest possible range of treatment options for dealing with individual cases.

CRC Press

Market: Veterinary Medicine

February 2026: 280x210: 358pp: 1168 illus, 1144 halftones, 24 line drawings

Hb: 978-0-367-02999-9: **£170.00**

Prev. Ed Hb: 978-1-84076-163-4

★ For full contents and more information, visit: www.routledge.com/9780367029999

Your Veterinary Wellness Journey

An Interactive Guide to Thriving with Growth, Resilience, and Purpose



Sonja A. Olson, Florida Univ., College of Vet. Med.

Your Veterinary Wellness Journey builds on the essential work begun in the author's first book, which introduced the care-giving challenges that may impact wellbeing, especially those unique to veterinary environments. This practical sequel capitalizes on collective, compassionate wisdom drawn from a global perspective on what tools, practices, and approaches will inform, prepare, and inspire all members of a veterinary team to be their healthiest selves, both at work and in their personal lives. It is an important resource for anyone working in the veterinary profession and general practice, as well post-graduates and undergraduates preparing for their career.

CRC Press

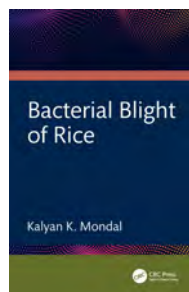
Market: Veterinary Science, Wellbeing

September 2026: 254x178: 282pp: 36 illus, 4 halftones, 32 line drawings

Pb: 978-1-032-75392-8: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781032753928

Bacterial Blight of Rice



Kalyan K. Mondal, ICAR-IARI, New Delhi, India

Bacterial Blight of Rice offers a comprehensive and authoritative account of one of the most destructive diseases threatening global rice production. Rice (*Oryza sativa* L.), the staple food for more than half of the world's population, suffers severe yield losses often 30–60% from bacterial blight caused by *Xanthomonas oryzae* pv. *oryzae* (Xoo). Although nearly 50 resistance (Xa) genes have been deployed in breeding programmes, the rapid evolution of Xoo races continues to undermine durable resistance, demanding a deeper understanding of pathogen diversity and host pathogen interactions.

CRC Press

Market: Agriculture Science

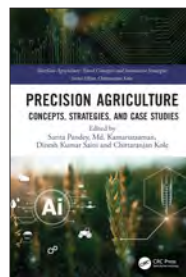
August 2026: 234x156: 234pp: 22 illus, 22 line drawings

Hb: 978-1-041-20008-6: **£115.00**

★ For full contents and more information, visit: www.routledge.com/9781041200086

Precision Agriculture

Concepts, Strategies, and Case Studies



Edited by **Sarita Pandey, Md. Kamaruzzaman, Dinesh Kumar Saini**, Texas Tech University, USA and **Chittaranjan Kole**

Series: *Nextgen Agriculture*

Precision Agriculture: Concepts, Strategies, and Case Studies brings together leading experts from agriculture, data science, engineering, and agricultural policy to explore the integration of artificial intelligence, machine learning, remote sensing, geospatial technologies, IoT-enabled systems, and decision-support tools. Moving beyond conceptual discussions, the book emphasizes real-world implementation through applied frameworks and case studies that demonstrate improved yield optimization, resource-use efficiency, and climate resilience across diverse agro-ecological settings.

CRC Press

Market: Agriculture

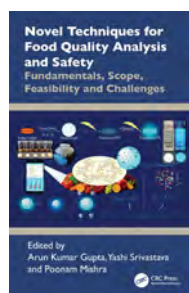
January 2028: 254x178: 264pp: 65 illus, 41 halftones, 24 line drawings

Pb: 978-1-032-99007-1: **£74.99**

★ For full contents and more information, visit: www.routledge.com/9781032990071

Novel Techniques for Food Quality Analysis and Safety

Fundamentals, Scope, Feasibility and Challenges



Edited by **Arun Kumar Gupta, Yashi Srivastava and Poonam Mishra**

Novel Techniques for Food Quality Analysis and Safety: Fundamentals, Scope, Feasibility and Challenges is the need of the current hour that reflects the growing demand to shift from conventional analytical approaches to emerging and rapid techniques for ensuring food quality and safety.

CRC Press

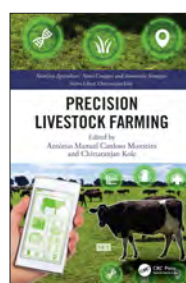
Market: Food & Culinary Science

October 2026: 234x156: 360pp: 57 illus, 57 line drawings

Hb: 978-1-032-77352-0: **£115.00**

★ For full contents and more information, visit: www.routledge.com/9781032773520

Precision Livestock Farming



Edited by **António Monteiro and Chittaranjan Kole**

Series: *Nextgen Agriculture*

Precision Livestock Farming examines how digital technologies are reshaping animal production in response to the growing demands of food security, sustainability, and animal welfare. Moving beyond herd-level observation, it presents a data-driven approach to monitoring individual animals and managing farm systems with greater precision.

CRC Press

Market: Agriculture

November 2026: 254x178: 216pp: 33 illus, 13 halftones, 20 line drawings

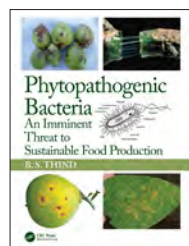
Hb: 978-1-041-02609-9: **£140.00**

★ For full contents and more information, visit: www.routledge.com/9781041026099

TEXTBOOK

Phytopathogenic Bacteria

An Imminent Threat to Sustainable Food Production



B. S. Thind, Punjab Agricultural University, Ludhiana, India

The field of Plant Bacteriology/Phytopathology is rapidly advancing and changing due to recent advances in genomics and molecular plant bacteriology as well as global spread of bacterial plant diseases and emergence of new bacterial plant pathogens. So, there is a need to integrate understanding of bacterial taxonomy, genomics and basic plant bacteriology that reflects state of the art knowledge about plant-disease mechanisms. In the present book, first eight chapters contain general information about bacteria, classification of plant pathogenic bacteria and molecular mechanisms of virulence and pathogenesis of phytopathogenic bacteria.

CRC Press

Market: Life Science

July 2026: 280x210: 476pp: 70 illus, 57 halftones, 13 line drawings

Hb: 978-1-041-15914-8: **£160.00**

★ For full contents and more information, visit: www.routledge.com/9781041159148

Rhizosphere Engineering for Sustainable Agricultural Practices



Edited by **Pankaj Sharma and Azamal Husen**, Wolaita Sodo University, Ethiopia

Rhizosphere Engineering for Sustainable Agricultural Practices provides insights into one of the most powerful, yet underrated, structures in agriculture, the dynamic world surrounding plant roots. As global demands for food rise, along with increased environmental stress, the book demonstrates how soil microbial communities create natural potential for resilient and sustainable crop production. The book helps readers understand how beneficial microbes act as natural allies, reducing reliance on chemical inputs and supporting eco-friendly agricultural practices.

CRC Press

Market: Agriculture

August 2026: 254x178: 422pp: 52 illus, 41 halftones, 11 line drawings

Hb: 978-1-032-97610-5: **£205.00**

★ For full contents and more information, visit: www.routledge.com/9781032976105

AI-Driven Plant Biotechnology



Edited by **Jen-Tsung Chen**

Artificial intelligence has immense potential in boosting crop productivity through efficient selection of desirable phenotypes, utilization of agricultural inputs, disease and pest management, and provide location specific management advice to the growers. *AI-Driven Plant Biotechnology* presents strategies to help users develop crops that deliver higher yields, enhanced nutritional value, and disease resistance to aid in sustainable agriculture practices. This book is designed for researchers in plant sciences, plant biotechnology, and crop breeding including students and professors for their essential and supplementary reading in plant biology and biotechnology courses.

CRC Press

Market: Plant Sciences

November 2026: 254x178: 624pp: 54 illus, 37 halftones, 17 line drawings

Pb: 978-1-041-11788-9: **£110.00**

★ For full contents and more information, visit: www.routledge.com/9781041117889

Disaster Management and Business Continuity for Animal Research Programs



Edited by **Lesley A. Colby, John N. Norton, Jason S. Villano and Lois A. Zitzow**

This book provides guidance on planning for, responding to, and recovering from the impacts of disasters that animal research programs may encounter, such as severe weather, failures of facility mechanical systems, damage to equipment or infrastructure, or personnel shortages. Each chapter offers in-depth coverage of a specific topic, including regulatory requirements, the Incident Command System, business continuity plans, training strategies, psychological well-being of personnel, IT infrastructure and cyber-risk, and effective communications, as well as checklists and case studies. This book is an essential resource for animal research program leadership and animal care personnel.

CRC Press

Market: Laboratory Animal Science

October 2026: 254x178: 278pp: 9 illus, 9 line drawings

Pb: 978-1-032-14692-8: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781032146928

Beyond Behaviour

The Ethics of Dog-centred Training



Erin Jones, Merit Dog Training, NZ

Beyond Behaviour critically examines various training methodologies through the lens of moral philosophy, exploring questions of autonomy, consent, and the psychological wellbeing of dogs in their role as our pet. Delving into the complex interplay between ethical principles, moral questions of control and power, and the practicalities of training our canine companions, *Beyond Behaviour* will help trainers, behaviour consultants and all dog guardians create a just relationship where dogs can thrive. This isn't just another dog training book. It is a gateway to more compassionate, effective, and ethically sound approaches to dog training in contemporary practice.

CRC Press

Market: Pets

November 2026: 254x178: 472pp: 16 illus, 11 halftones, 5 line drawings

Pb: 978-1-032-96583-3: **£28.99**

★ For full contents and more information, visit: www.routledge.com/9781032965833

Diversity of Fungi and Fungus-Like Organisms in Tropical Forests



Edited by **Steven L. L. Stephenson, Samantha Chandranath C. Karunarathna, Changlin Zhao and Arun Kumar Kumar Dutta**

Tropical forests cover approximately six percent of the land surface of the earth and more than thirty percent of all forested areas on the entire planet. These forests are characterized by a very high level of diversity for the assemblages of organisms present. *Diversity of Fungi and Fungus-Like Organisms in Tropical Forests* brings together information on these organisms obtained by scientists who are actively carrying out research in every region of the world where tropical forests occur. Among the major subject areas considered are ecology, biogeography, and taxonomy.

CRC Press

Market: Plants Sciences/Agriculture

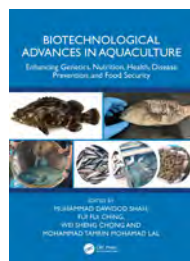
August 2026: 254x178: 394pp: 75 illus, 63 halftones, 12 line drawings

Pb: 978-1-041-08590-4: **£89.99**

★ For full contents and more information, visit: www.routledge.com/9781041085904

Biotechnological Advances in Aquaculture

Enhancing Genetics, Nutrition, Health, Disease Prevention, and Food Security



Edited by **Muhammad Dawood Shah**, Univ. Malaysia, **Fui Fui Ching**, Univ. Malaysia, **Wei Sheng Chong**, Univ. Malaysia and **Mohammad Tamrin Mohamad Lal**, Univ. Malaysia

This textbook provides a comprehensive exploration of the latest biotechnological innovations transforming the aquaculture industry. With contributions from leading experts, it offers actionable insights and practical solutions to the challenges facing aquaculture. It will be an indispensable resource for students and researchers who want to understand the integration of biotechnology to promote sustainable aquaculture practices, innovation and resilience in global seafood production.

CRC Press

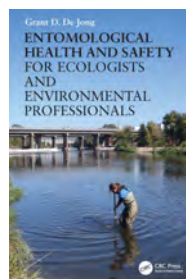
Market: Aquaculture

January 2027: 280x210: 432pp: 80 illus, 34 halftones, 46 line drawings

Hb: 978-1-041-13295-0: **£200.00**

★ For full contents and more information, visit: www.routledge.com/9781041132950

Entomological Health and Safety for Ecologists and Environmental Professionals



Grant D. De Jong

This structured, field-focused guide to the medical and operational risks posed by insects, arachnids, and their allies combines insights from biology, health and safety, and practical field experience. It equips readers with the knowledge to anticipate, assess, and mitigate arthropod-related risks across a wide range of environments and occupations. It is designed for field biologists, utility crews, safety officers, project managers, and anyone who plans or participates in outdoor work, empowering teams to plan confidently, reduce avoidable risk, and improve morale by understanding the entomological landscape of their job sites.

CRC Press

Market: Environmental Science

July 2026: 234x156: 314pp: 107 illus, 58 halftones, 49 line drawings

Pb: 978-1-041-25226-9: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041252269

Exploring Medicinal Fruits and Berries



Edited by **Azamal Husen**, Wolaita Sodo University, Ethiopia
Series: Exploring Medicinal Plants

Exploring Medicinal Fruits and Berries is a clear, authoritative guide to fruits long valued in traditional medical systems and increasingly examined by modern science. It explains how naturally occurring bioactive compounds antioxidants, polyphenols, flavonoids, vitamins and minerals contribute to pathways relevant to health risk and wellbeing. Bridging traditional knowledge with state-of-the-art research, the book surveys fruits and berries with evidence across immunity, inflammation management, cardiovascular and metabolic health, healthy ageing, skin health and gastrointestinal function.

CRC Press

Market: Plant Sciences/Food Science and Nutrition

September 2026: 254x178: 346pp: 50 illus, 42 halftones, 8 line drawings

Hb: 978-1-041-16384-8: **£170.00**

★ For full contents and more information, visit: www.routledge.com/9781041163848

Fighting for Farmed Animals

Campaigning on the Shoulders of Giants



Edited by **Amy Odene**, Campaigns Lab

This book brings together first-hand accounts from advocates campaigning for farmed animals across the world. Each story is from an individual who pushed through hardship, accepted their position as the underdog and fought anyway. The book shows that, despite being up against a powerful industry whose marketing and lobbying budgets vastly out scale their entire global funding, animal advocates have the power to bring down these giants and their cruel practices. Acting as a training tool and source of global inspiration, this insightful collection is an energizing and informative reference for those working in animal advocacy, as well as those wanting to join the field.

CRC Press

Market: Animal Welfare

September 2026: 246x174: 212pp: 51 illus, 51 halftones

Pb: 978-1-041-07200-3: **£29.99**

★ For full contents and more information, visit: www.routledge.com/9781041072003

Fundamentals of Cage Wash Operations

At the intersection of technology, husbandry, safety, and compliance, accomplishing sanitation in research animal science



Edited by **James D. Cox** and **Bruce W. Kennedy**

The animal care and use facility support (cagewash) area has evolved tremendously in the past fifty years and is now recognized as a critical component in programs of animal care and use throughout the world. This much-needed book describes facility support operations that have a direct, substantial effect on the program's ability to provide quality animal care. There is a significant volume of knowledge necessary to work in this facility support roles, which is spread across many different resources, many of which are unpublished and/or at a highly skilled technical level. This brings all the relevant information together in an accessible, highly practical guide.

CRC Press

Market: Life Science

September 2026: 280x210: 440pp: 114 illus, 82 halftones, 32 line drawings

Pb: 978-0-367-02853-4: **£79.99**

★ For full contents and more information, visit: www.routledge.com/9780367028534

2nd Edition

The Atlas of European Mammals



Edited by **Anthony J. Mitchell-Jones**, **Giovanni Amori**, **Boris Kryštufek**, **Svetlana Miteva**, **Alexandra Sallay**, **Laurent Schley**, **Johan Thissen**, and **Vladimír Vohralík**

Since 1999, this atlas has proved a valuable resource for mammalogists across the globe. Now thoroughly updated, the new edition has extended the coverage of Europe to include Belarus, Moldova and Ukraine. Specialists have collected distribution data for each country using an agreed species list and a standard mapping system. This landmark volume presents maps of 247 species from 42 countries with more than 125,200 unique records, taking into account recent extinctions to give the most up-to-date picture possible. Accounts for each species

include details of taxonomy and variation, habitat, population and international legal and conservation status.

CRC Press

Market: Life Science

October 2026: 280x210: 562pp: 430 illus, 430 halftones

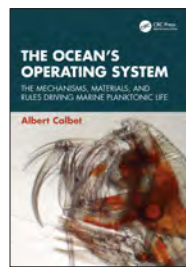
Hb: 978-0-367-18686-9: **£200.00**

★ For full contents and more information, visit: www.routledge.com/9780367186869

TEXTBOOK

The Ocean's Operating System

The Mechanisms, Materials, and Rules Driving Marine Planktonic Life



Albert Calbet, Institute of Marine Sciences, CSIC, Barcelona

This mechanism-first guide to how the sea actually works teaches the rules light, viscosity, turbulence, temperature, oxygen, pressure, and elemental budgets and the devices organisms use to play by them: filters and houses, pellets and gels, pigments and transporters, migrations and dormancy. Written in clear, quantitative prose with minimal math, this book equips researchers, advanced students, modelers, and managers to move from a handful of measurements to community strategies, carbon routing, and flux. A transferable toolkit to predict who will win, what will happen, and why, this is your field manual for reading, and using, the code that runs the ocean.

CRC Press

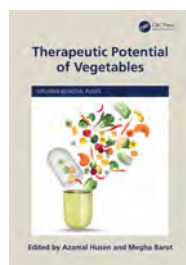
Market: Marine Biology

July 2026: 254x178: 170pp: 32 illus, 30 halftones, 2 line drawings

Pb: 978-1-041-27182-6: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041271826

Therapeutic Potential of Vegetables



Edited by **Azamal Husen**, Wolaita Sodo University, Ethiopia and **Megha Barot**

Series: Exploring Medicinal Plants

Vegetables nourish, heal, and protect, a truth recognized for centuries and now reinforced by modern scientific discovery. *Therapeutic Potential of Vegetables* reveals the remarkable bioactive power hidden within everyday vegetables and explores their role as natural allies in disease prevention, management, and holistic well-being.

CRC Press

Market: Food Science and Nutrition

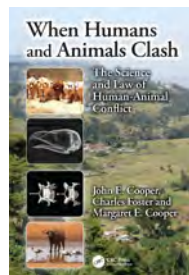
September 2026: 254x178: 366pp: 43 illus, 30 halftones, 13 line drawings

Hb: 978-1-032-99301-0: **£115.00**

★ For full contents and more information, visit: www.routledge.com/9781032993010

When Humans and Animals Clash

The Science and Law of Human-Animal Conflict



John E. Cooper, Charles Foster and Margaret E. Cooper

Since the causes of human-animal conflict are complex and multifactorial, any attempt to understand and mitigate it must be holistic and multidisciplinary. *Humans and Animals Clash: The Science and Law of Human-Animal Conflict* is just that a compendium of advice about how to identify the culprits, allocate blame and avoid wrongful allegations, address the causes, assess compensation and consider other forms of reparation, make legal and ethical judgments, and formulate policy.

CRC Press
December 2026: 254x178: 432pp: 249 illus, 248 halftones, 1 line drawing
Pb: 978-0-367-55057-8: **£110.00**

★ For full contents and more information, visit: www.routledge.com/9780367550578

AI for Biomedical Research

Volume 1: From Idea to Analysis



Molly Klote

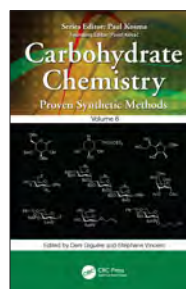
Artificial intelligence is transforming every aspect of biomedical research practice. Researchers face a fragmented landscape of tools, evolving ethical requirements, emerging regulations, and rapidly shifting best practices. The first of two volumes, this book provides a comprehensive treatment of artificial intelligence across the complete research lifecycle, from initial ideation through analysis, quality assurance, dissemination, and long-term impact.

CRC Press
Market: Bioscience
November 2026: 198x129: 264pp
Pb: 978-1-041-32339-6: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041323396

Carbohydrate Chemistry

Proven Synthetic Methods, Volume 6



Edited by **Denis Giguère**, and **Stéphane P. Vincent**

Series: Carbohydrate Chemistry: Proven Synthetic Methods

The Proven Synthetic Methods Series address the concerns many chemists have on irreproducibility of synthetic protocols, lack of identification and characterization data for new compounds, and inflated yields reported in chemical communications - trends that have recently become a serious problem. It is unique in that an independent checker has verified the experimental parts involved by repeating the protocols or using the methods. Featuring contributions from world-renowned experts and overseen by a highly respected series editor, this latest volume compiles reliable protocols for the preparation of intermediates for carbohydrate synthesis or other uses in the glycosciences.

CRC Press
Market: Organic Chemistry
September 2026: 234x156: 240pp: 170 illus, 3 halftones, 167 line drawings
Pb: 978-0-367-49574-9: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9780367495749

TEXTBOOK

Drug Delivery

From Fundamentals to the Future



Edited by **Dimitrios A. Lamprou** and **Matthew P. Wylie**

This new text assist students in understanding the important science underpinning the formulation of modern dosage forms and how pharmaceutical and biopharmaceutical formulations are developed. Moreover, it covers the design and development of a wide range of pharmaceutical formulations and problem-solving issues associated with their production. The chapters support undergraduate and graduate students to develop the knowledge required for their studies or prepare for employment in the pharmaceutical industry that is estimated to be worth \$1.42 trillion. The book covers topics from basic drug delivery to the future, including machine learning and sustainability approaches.

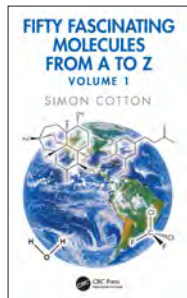
CRC Press
Market: Pharmaceutical Sciences
July 2026: 254x178: 550pp: 131 illus, 61 halftones, 70 line drawings
Pb: 978-1-032-77235-6: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781032772356

TEXTBOOK

Fifty Fascinating Molecules from A to Z

Volume 1



Simon A. Cotton, University of Birmingham, UK

Fifty Fascinating Molecules From A to Z, Volume 1 follows on from the author's earlier *Every Molecule Tells a Story* and *Every Molecule Matters* and relates the stories of a wide range of molecules. They encompass familiar names - medicines including aspirin and morphine; flavourings such as menthol and vanilla; and substances of abuse like cocaine and methamphetamine. But there are the unexpected, like the poisons that crop in the stories of James Bond; the molecules that give chillies and mustard their particular charm; the polymers that are part of everyday life polythene, nylon and terylene; and other everyday molecules, such as water, a substance that so many take for granted.

CRC Press

Market: General Chemistry

October 2026: 234x156: 312pp: 288 illus, 288 line drawings

Pb: 978-1-041-32602-1: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041326021

Moringa oleifera

Therapeutics, Phytochemical and its Nutritional Importance



Edited by **Nagendra Singh Chauhan**,
Durgesh Nandini Chauhan, **Kamal Shah**, GLA University,
Mathura and **Umesh K. Patil**

Moringa oleifera is a small plant found around the globe. It is known as a miracle tree, due to its diverse medicinal uses. The various part of the plant like root, stem, leaf, flower, fruit and seed have some nutritive values. This plant is rich in phenolic contents, flavonoids, carotenoids, proteins, vitamins, fatty acids, various micro or macro nutrients. This book highlights the nutritional, pharmaceutical and medicinal values of *Moringa oleifera* and its utilization as nutraceuticals and functional foods. It covers the current importance of *Moringa oleifera* nutritional properties,

pharmacological importance, and biological activities.

CRC Press

Market: Pharmaceutical Science

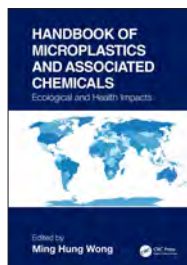
August 2026: 254x178: 374pp: 24 illus, 12 halftones, 12 line drawings

Hb: 978-1-041-02140-7: **£120.00**

★ For full contents and more information, visit: www.routledge.com/9781041021407

Handbook of Microplastics and Associated Chemicals

Ecological and Health Impacts



Edited by **Ming Hung Wong**, The Education University of
Hong Kong, China

This volume explores the pervasive issue of microplastics and the associated chemicals such as bisphenol A and phthalates in our environment and their implications for various living organisms, including humans. The handbook format addresses the multifaceted nature of microplastic pollution. It presents the challenges posed by microplastics and delves into existing policies and innovative solutions for mitigating their impact. It provides actionable recommendations for policymakers, environmental advocates and industries aimed at reducing plastic pollution. Featuring case studies and practical examples,

the book highlights the real-world implications of microplastic pollution.

CRC Press

Market: Environmental Science

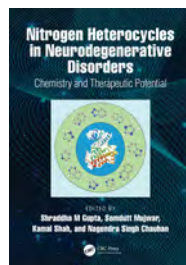
July 2026: 254x178: 526pp: 53 illus, 30 halftones, 23 line drawings

Hb: 978-1-041-06140-3: **£175.00**

★ For full contents and more information, visit: www.routledge.com/9781041061403

Nitrogen Heterocycles in Neurodegenerative Disorders

Chemistry and Therapeutic Potential



Edited by **Shraddha Manish Gupta**, UPES Dehradun, India,
Somdutt Mujwar, **Kamal Shah**, GLA University, Mathura
and **Nagendra Singh Chauhan**, Drugs Testing Laboratory
Avam Anusandhan Kendra, Raipur

Nitrogen Heterocycles in Neurodegenerative Disorders: Chemistry and Therapeutic Potential deliver a comprehensive and research-driven exploration of the chemistry, biological relevance, and translational promise of nitrogen-based heterocyclic compounds. Distinct in its integrative approach, the book bridges synthetic chemistry, molecular pharmacology, and clinical perspectives. It not only discusses established heterocyclic frameworks but also critically evaluates emerging scaffolds, structure activity relationships, and

challenges in blood brain barrier penetration offering readers both foundational knowledge and forward-looking insights.

CRC Press

Market: Chemistry

October 2026: 254x178: 238pp: 166 illus, 166 line drawings

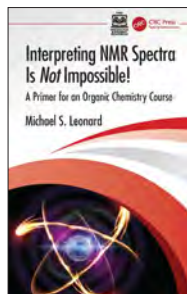
Hb: 978-1-041-29937-0: **£115.00**

★ For full contents and more information, visit: www.routledge.com/9781041299370

TEXTBOOK

Interpreting NMR Spectra Is Not Impossible!

A Primer for an Organic Chemistry Course



Michael S. Leonard

Nuclear magnetic resonance (NMR) spectroscopy is the gold standard for identification of reaction products and unknown substances in the synthetic laboratory. This book is designed for Organic Chemistry lecture and/or laboratory courses at the high school or college and university level. The topics include an introduction to the theory of NMR, several chapters on proton NMR (the number of signals, chemical shift, integration, splitting, and advanced topics), and carbon-13 NMR. The book culminates with twenty additional, comprehensive problems. All of the problems throughout the text are accompanied by fully worked solutions with detailed explanations.

CRC Press

Market: Chemistry

July 2026: 229x152: 120pp: 182 illus, 182 line drawings

Pb: 978-1-041-32525-3: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041325253

3rd Edition

Pharmaceutical Process Engineering

Anthony J. Hickey, RTI International, North Carolina, USA

Series: Drugs and the Pharmaceutical Sciences

With step-by-step methods of drug production and knowledge of major unit operations and key concepts of pharmaceutical engineering, this guide will help to improve communication among the varied professionals working in the pharmaceutical industry. The updated volume reflects the acceleration occurring in processes to support new product development as the revolution initiated by characterization of the human genome at the turn of the millennium has an impact in transforming the treatment of disease.



CRC Press

Market: Pharmaceutical Science

July 2026: 254x178: 248pp: 106 illus, 106 line drawings

Hb: 978-1-032-73011-0: **£210.00**

Prev. Ed Hb: 978-1-4200-8475-7

★ For full contents and more information, visit: www.routledge.com/9781032730110

The Bioanalysis Glossary

2026 Edition



Edited by **The Glossary Editorial Panel**

In this glossary, bioanalysis is defined as the quantitative or qualitative measurement of endogenous or exogenous analytes in biological matrices. The broader use of the term used by biochemists for biochemical characterization is excluded. This glossary lists terms, definitions and equations that are directly associated with the field of bioanalysis; that describe closely related techniques, technologies and applications of bioanalysis; and which are important or useful for bioanalysts to understand.

CRC Press

Market: Biopharmaceuticals

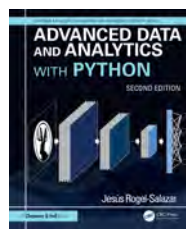
July 2026: 210x148: 194pp: 5 illus, 5 halftones

Pb: 978-1-041-16238-4: **£27.99**

★ For **full contents** and more information, visit: www.routledge.com/9781041162384

2nd Edition

Advanced Data Science and Analytics with Python



Jesús Rogel-Salazar, Imperial College London, UK

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

The second edition of *Advanced Data Science and Analytics with Python* reflects the rapid transformation of artificial intelligence in recent years. While preserving its practical, modular structure, this edition significantly expands coverage of the techniques shaping modern AI practice. Generative AI now takes centre stage, with dedicated coverage of self-attention, BERT, GPT, large language model evaluation and API-based interaction. Fully updated for the contemporary Python ecosystem, this edition equips practitioners with the tools and architectural understanding required to design, build and deploy intelligent systems in today's AI-driven world.

Chapman and Hall/CRC

Market: Computer Science and Engineering

August 2026: 235x191: 632pp: 110 illus, 110 line drawings

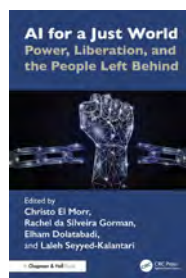
Pb: 978-1-041-10285-4: **£51.99**

Prev. Ed Pb: 978-1-138-31506-8

★ For **full contents** and more information, visit: www.routledge.com/9781041102854

AI for a Just World

Power, Liberation, and the People Left Behind



Edited by **Christo El Morr, Rachel da Silveira Gorman, Elham Dolatabadi** and **Laleh Seyyed-Kalantari**

This book examines how artificial intelligence systems are reshaping social, political, and economic life with unequal consequences. Bringing together critical scholarship from across disciplines, it investigates how AI redistributes power, produces new forms of exclusion, and reconfigures longstanding structures of inequality. It will interest scholars, graduate students, and advanced practitioners working in critical AI studies, science and technology, health policy, political science, sociology, education, law, and digital ethics, as well as policymakers and activists seeking rigorous, justice-oriented frameworks for understanding and contesting the social impacts of AI.

Chapman and Hall/CRC

Market: Computer Science

July 2026: 254x178: 360pp: 12 illus, 1 halftone, 11 line drawings

Hb: 978-1-041-23697-9: **£120.00**

★ For **full contents** and more information, visit: www.routledge.com/9781041236979

AI for Marketing

The Consumer Perspective



Idil M. Cakir

Series: *AI for Everything*

AI for Marketing examines the human side of AI adoption at a moment when technology is advancing faster than consumer comfort. While millions use AI to search, plan, create, and make decisions, trust remains fragile. This book explains why that gap persists, and what it means for marketers trying to reach audiences who are both curious and cautious. The book offers marketers practical guidance on designing AI-powered experiences that are credible, equitable, and human led. It shows how trust can be built into every touchpoint from onboarding and data exchange to content creation and customer service and why doing so is essential for adoption and long-term loyalty.

CRC Press

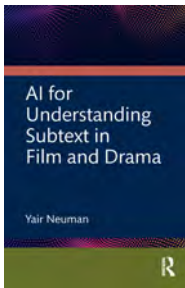
Market: Computer Science

July 2026: 198x129: 246pp: 13 illus, 13 line drawings

Pb: 978-1-041-13532-6: **£24.99**

★ For **full contents** and more information, visit: www.routledge.com/9781041135326

AI for Understanding Subtext in Film and Drama



Yair Neuman

AI for Understanding Subtext in Film and Drama offers a novel, rigorous, and deeply reflective approach to one of the most elusive problems in aesthetics and interpretation: how meaning emerges when it is not explicitly stated. The book will be of strong interest to researchers and advanced students, scholars in human AI interaction and AI for the humanities, and educators teaching interpretation, subtext, and critical reading. It is suitable for graduate-level courses, advanced undergraduate seminars, and interdisciplinary programs that bridge the humanities, social sciences, and AI studies.

Routledge

Market: Computer Science

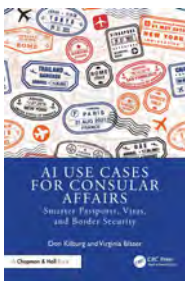
September 2026: 234x156: 256pp

Pb: 978-1-041-36785-7: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781041367857

AI Use Cases for Consular Affairs

Smarter Passports, Visas, and Border Security



Don Kilburg and Virginia Blaser

AI Use Cases for Consular Affairs explores applications for artificial intelligence across issues such as visas, passports, border security, disaster evacuation, and identity verification. It shows how AI can improve fairness, expand access, and return precious time to public servants, while confronting the risks and ethical dilemmas head-on. This book is essential reading for public servants, policymakers, diplomats, politicians, state officials, immigration professionals and all those working in consular affairs, as well as general readers with an interest in the implications of AI for worldwide migration.

Chapman and Hall/CRC

Market: Computer Science

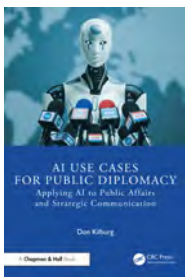
October 2026: 234x156: 280pp

Pb: 978-1-041-06301-8: **£31.99**

★ For full contents and more information, visit: www.routledge.com/9781041063018

AI Use Cases for Public Diplomacy

Applying AI to Public Affairs and Strategic Communication



Don Kilburg

AI Use Cases for Public Diplomacy reveals how AI is reshaping the landscape of public diplomacy from audience analysis and strategic messaging to media monitoring, crisis communication, and multilateral coalition-building and how it can aid diplomats in the contest for hearts and minds. Kilburg shows how AI can expand diplomatic reach, sharpen timing, and sustain credibility while confronting the ethical dilemmas head-on. This book is essential reading for diplomats, embassy staff, politicians, and public communicators who are ready to act on the greatest lesson the AI revolution teaches us: credibility can no longer be faked, only earned.

Chapman and Hall/CRC

Market: Computer Science

September 2026: 234x156: 336pp

Pb: 978-1-041-00837-8: **£31.99**

★ For full contents and more information, visit: www.routledge.com/9781041008378

TEXTBOOK

An Introduction to Virtual and Augmented Reality

Designing Impactful Experiences



Marco Gillies, Goldsmiths, University of London, UK and Sylvia Xueni Pan

This book is an introduction to Virtual Reality (VR) and Augmented Reality (AR), giving learners a deep understanding of the media and enabling them to create impactful experiences applicable to a variety of industries. The book introduces the hardware and software that power these technologies, explained in clear and accessible terms. It then examines 'presence' and 'embodiment', explores mixed reality, and investigates real and virtual agents. Supported by a wealth of case studies of VR/AR applications, and interviews from VR/AR experts, this book serves as a core textbook for students of Virtual Reality and Augmented Reality courses in creative and technical fields.

Chapman and Hall/CRC

Market: Virtual Reality / Augmented Reality / Mixed Reality

August 2026: 254x178: 298pp: 71 illus, 59 halftones, 12 line drawings

Pb: 978-1-032-97126-1: **£64.99**

★ For full contents and more information, visit: www.routledge.com/9781032971261

Beyond Algorithms

Reframing AI as Intellectual Capital for Human Flourishing



Roderic Hewlett

The book offers a clear, timely framework for viewing and analyzing AI as intellectual capital rather than as autonomous intelligence. AI is presented as a tool that helps organize, expand, and apply knowledge to support human decision-making, improve institutional effectiveness, and promote social progress. It is intended for scholars, social scientists, advanced students, policymakers, technology practitioners, and business, education, government, and civil society leaders who seek a rigorous, accessible approach to AI that prioritizes human development, institutional integrity, and long-term value creation over short-term optimization.

Chapman and Hall/CRC

Market: Computer Science

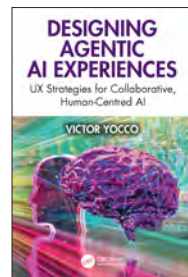
July 2026: 234x156: 174pp: 2 illus, 2 line drawings

Pb: 978-1-041-24886-6: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781041248866

Designing Agentic AI Experiences

UX Strategies for Collaborative, Human-Centered AI



Victor Yocco

Readers of this book will learn to: Design Trust: Use the Trust Battery model to measure and maintain user confidence over time; Define Personality: Craft Agent Personas and Relationship Archetypes that align with user expectations; Structure Delegation: Implement the Ladder of Autonomy to guide users from simple suggestions to fully automated actions; Ensure Safety: Deploy Circuit Breakers and feedback loops that prevent error and keep the human in control; Scale Strategy: Establish an Agentic Center of Excellence to govern multi-agent ecosystems across the enterprise.

CRC Press

Market: User Experience / UX / Artificial Intelligence

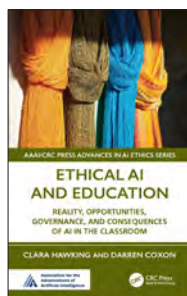
September 2026: 234x156: 192pp: 21 illus, 21 line drawings

Pb: 978-1-041-23726-6: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781041237266

Ethical AI and Education

Reality, Opportunities, Governance, and Consequences of AI in the Classroom



Clara Hawking and Darren Coxon

Series: AAAI/CRC Press Advances in AI Ethics Series

The book addresses core issues including bias, datafication, academic integrity, teacher agency, and global inequality, while placing recent developments such as generative AI within a longer trajectory of educational technology. Drawing on international frameworks, including the European Union Artificial Intelligence Act, it provides practical guidance for schools seeking to implement AI in ways that are lawful, accountable, and educationally meaningful. The central argument is that ethical AI in education depends not on tools alone, but on structures of oversight, professional judgment, and institutional responsibility.

CRC Press

Market: Artificial Intelligence / Education

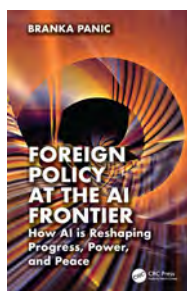
October 2026: 234x156: 216pp

Pb: 978-1-041-12090-2: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781041120902

Foreign Policy at the AI Frontier

How AI is Reshaping Progress, Power, and Peace



Branka Panic

This book is a comprehensive guide for foreign policy practitioners navigating the transformative impact of AI on diplomacy and statecraft. It explores how AI technologies are reshaping the landscape of international relations, offering new tools for economic strategy, crisis response, defence, and transnational cooperation. Surveying the use of AI in both enhancing and complicating foreign affairs, the book addresses ethical and legal concerns and proposes strategies for leveraging AI responsibly. It includes various case studies on the deployment of AI in real-world scenarios and offers strategic insights for foreign affairs professionals, policymakers, and scholars.

CRC Press

Market: Artificial Intelligence / International Relations

September 2026: 234x156: 198pp

Pb: 978-1-041-08292-7: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781041082927

TEXTBOOK

Foundations of Robotics

Mechatronics, Cybernetics, and AI



Charles Fox and Jonathan Aitken

Bridging foundational theory and real-world applications, this book is core course reading for advanced undergraduate and graduate students of robotics, mechatronics, and artificial intelligence. It is also a valuable resource for maker communities, equipping them with the skills needed to succeed in this cutting-edge field.

CRC Press

Market: Robotics

November 2026: 246x174: 440pp: 156 illus, 78 halftones, 78 line drawings

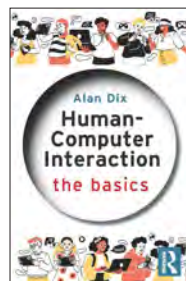
Pb: 978-1-032-81801-6: **£55.99**

★ For full contents and more information, visit: www.routledge.com/9781032818016

TEXTBOOK

Human-Computer Interaction

The Basics



Alan Dix, Swansea University, Fabian Way, Swansea, Wales

Series: The Basics

This book begins by exploring key topics such as understanding the human context in which systems are deployed, applying design and evaluation methods, and building and deploying human-focused software. Later chapters examine the social and ethical implications of digital technology and underlying theory and research, incorporating insights from psychological and social science perspectives. For those aiming to understand how the systems around them have been designed, or are seeking guidance to improve design processes, this book offers valuable insights to support the creation of better, more effective systems.

Routledge

Market: Human Computer Interaction / UX Design

December 2026: 198x129: 162pp: 3 illus, 3 line drawings

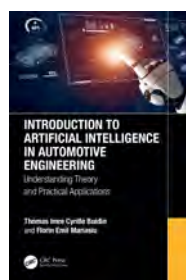
Pb: 978-1-041-09517-0: **£19.99**

★ For full contents and more information, visit: www.routledge.com/9781041095170

TEXTBOOK

Introduction to Artificial Intelligence in Automotive Engineering

Understanding Theory and Practical Applications



Thomas Imre Cyrille Buidin and Florin Emil Mariasiu

This book serves as a practical and timely guide to understanding how artificial intelligence can be applied and leveraged in automotive engineering. It demystifies complex methods of applying artificial intelligence and provides readers with the tools to creatively and immediately apply them to their own engineering challenges, transforming information into knowledge. The book represents an essential guide for all those interested in exploring the application of artificial intelligence in automotive engineering (and beyond) and equally constitutes an effective support in the teaching process (courses, laboratories, projects) of applied artificial intelligence concepts.

CRC Press

Market: Artificial Intelligence / Automotive Engineering

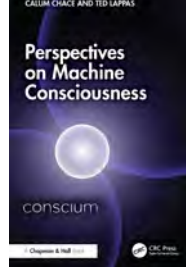
June 2026: 234x156: 306pp: 140 illus, 140 line drawings

Pb: 978-1-041-23722-8: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781041237228

Perspectives on Machine Consciousness

Edited by **Calum Chace** and **Ted Lappas**



Perspectives on Machine Consciousness asks whether any AIs are conscious today, whether any future ones could be conscious, how we could know, and what implications machine consciousness would have for us, and for them. This book is required reading for anybody developing advanced AI, working in AI safety, responsible for developing AI policies at organisational or national level, and indeed anybody concerned with the long-term future of humanity.

Chapman and Hall/CRC

Market: Computer Science

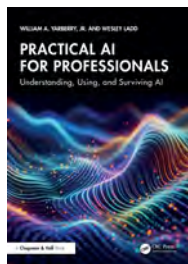
September 2026: 234x156: 350pp: 17 illus, 17 line drawings

Pb: 978-1-041-28234-1: **£18.99**

★ For full contents and more information, visit: www.routledge.com/9781041282341

Practical AI for Professionals

Understanding, Using, and Surviving AI



William A. Yarberry, Jr., ICCM Consulting, LLC, Kingwood, Texas, USA and **Wesley Ladd**

Practical AI for Professionals bridges the gap between high-level philosophy and technical implementation, delivering actionable AI knowledge for educated professionals without specialized training in computation, statistics, or modeling. It serves all professionals, particularly lawyers, physicians, financial analysts, engineers, managers, and other domain experts who need to understand AI deeply enough to deploy it effectively, assess vendor claims critically, and position themselves strategically in a transforming professional landscape. The book assumes no technical background but delivers substantive technical

understanding through clear explanations and concrete examples.

Chapman and Hall/CRC

Market: Computer Science

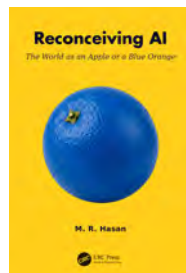
August 2026: 254x178: 412pp: 139 illus, 66 halftones, 73 line drawings

Pb: 978-1-041-07826-5: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781041078265

Reconceiving AI

The World as an Apple or a Blue Orange



M. R. Hasan

This book offers a fresh perspective on intelligence, AI alignment, and our collective future. *Reconceiving AI: The World as an Apple or a Blue Orange* explores intelligence across three stages external, internal, and societal AI. It examines neurotypical emotions and moral imperatives, proposing neurodivergent intelligence aligned with human society. Drawing on Cezanne's paintings it explores creative AI perception. The book analyzes moral dilemmas from Rohmer and Kieslowski films, plus generative AI technologies and large language models. Provides accessible exploration of AI's evolution for developers, researchers, students, and general readers.

CRC Press

Market: Computer Engineering

August 2026: 234x156: 220pp: 35 illus, 34 halftones, 1 line drawing

Pb: 978-1-041-03341-7: **£38.99**

★ For full contents and more information, visit: www.routledge.com/9781041033417

Python Using GPT-5 and Gemini



Oswald Campesato

Python Using GPT-5 and Gemini provides a practical, up-to-date guide that combines solid Python programming skills with real-world integration of today's leading large language models. The book teaches essential Python techniques while showing readers exactly how to connect and use GPT-5, Google Gemini, Claude, Grok, Perplexity, and other major models in their daily work. This book is written for intermediate Python developers, data scientists, technical professionals, and anyone who wants to move beyond basic prompting and build production-ready applications that effectively combine Python with the latest generation of large language models.

Chapman and Hall/CRC

Market: Computer Science

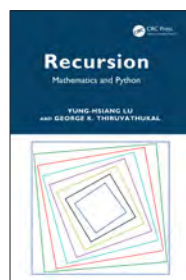
November 2026: 234x156: 368pp: 13 illus, 5 halftones, 8 line drawings

Pb: 978-1-041-34754-5: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781041347545

Recursion

Mathematics and Python



Yung-Hsiang Lu and **George K. Thiruvathukal**, Loyola University Chicago, Chicago, Illinois

Designed to help readers develop a clear and systematic understanding of recursion as both a mathematical concept and a programming technique. Rather than presenting recursion as a collection of isolated examples, the book emphasizes recursive thinking: how complex problems can be expressed, analyzed, and solved by breaking them into simpler instances of similar structures. This book is intended for undergraduate students in computer science and computer engineering who already have basic Python programming experience and some prior exposure to recursion. It can also help instructors seek a resource that tightly integrates mathematical reasoning with executable code.

CRC Press

Market: Computer Science

August 2026: 234x156: 236pp: 71 illus, 71 halftones

Hb: 978-1-041-14953-8: **£91.99**

★ For full contents and more information, visit: www.routledge.com/9781041149538

Rage Against the Autonomous Machine

The Dialectics of Artificial Intelligence and How to Survive the AI Revolution



Thanos Panagopoulos

Rage Against the Autonomous Machine is not a warning about some distant future it is a wake-up call for now. If AI is being aligned, the real question is: aligned with whom? With humanity's deepest needs, or with the private interests of those who control the infrastructure? Whether you are an everyday AI user or a scholar with a sociological, political, or technical background or feel fluent across all of them this is the interdisciplinary book you have been waiting for. Deeply academic yet accessible, this book is both a warning and an invitation: a call for action, and a call for wonder.

CRC Press

Market: Computer Science

September 2026: 234x156: 306pp: 14 illus, 14 line drawings

Pb: 978-1-041-21078-8: **£29.99**

★ For full contents and more information, visit: www.routledge.com/9781041210788

Safe or Secure?

Decoding Age Verification in the Digital Era



Azfar Adib

Safe or Secure? examines the evolution and deployment of age verification systems, situating them within broader technological, regulatory, and societal frameworks. It analyses this trend as part of the international response to the rapid expansion of the internet and subsequent exposure of minors to online contents that were not originally designed with age-based boundaries. The book is written to remain accessible to readers across disciplines, including policymakers, engineers, researchers, practitioners, as well as broader stakeholders such as activists, educators, parents, and general users engaged in the ongoing discourse on online safety and digital governance.

CRC Press

Market: Computer Science

October 2026: 234x156: 192pp: 11 illus, 3 halftones, 8 line drawings

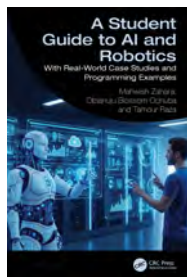
Hb: 978-1-041-08118-0: **£86.99**

★ For full contents and more information, visit: www.routledge.com/9781041081180



A Student Guide to AI and Robotics

With Real-World Case Studies and Programming Examples



Mahwish Zahara, Tamour Raza and Obianuju Blossom Ochuba

Through selected examples and case studies, the book explores robotics platforms and applied AI technologies used across industries, offering insights into their transformative potential in real-world scenarios. With a focus on hands-on learning, it introduces programming languages and tools commonly used in AI and robotics, empowering readers to apply concepts and techniques effectively. It also addresses the importance of building secure, responsible systems and examines the future of human-AI collaboration.

CRC Press

Market: Artificial Intelligence / Robotics

October 2026: 234x156: 224pp: 10 illus, 10 line drawings

Pb: 978-1-041-28256-3: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781041282563

Virtual Reality Therapy in the Metaverse

A Clinician's Guide to Getting Started with Virtual Reality-Based Psychotherapy



Bruce Bassi

Series: The Metaverse

Virtual Reality Therapy in the Metaverse provides mental health practitioners with a comprehensive, evidence-based guide to integrating virtual reality into psychotherapeutic practice. From preparing patients and obtaining informed consent to selecting hardware and designing virtual exposure environments, this book translates a growing body of research into practical clinical guidance. *Virtual Reality Therapy in the Metaverse* is intended for practising psychotherapists, psychiatrists, psychologists, counsellors and trainees, as well as researchers and technology developers working at the

intersection of mental health and immersive technology.

Chapman and Hall/CRC

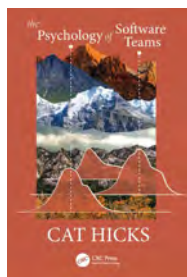
Market: Computer Science

October 2026: 234x156: 192pp: 6 illus, 6 line drawings

Pb: 978-1-032-55935-3: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781032559353

The Psychology of Software Teams



Cat M. Hicks

This book explains the psychology that creates resilience for developers, sustainable practices for software teams, and innovation for organizations. You'll learn from rigorous empirical evidence gathered from top engineering organizations and thousands of developers around the world, revealing powerful principles to guard against failure and drive cultures of collaboration and problem-solving. This book is for the developers and builders of the future. It will teach you how to untangle your thinking from pervasive myths about software work and harness the superpowers of psychology to create more joyful, innovative, and thriving environments for software.

CRC Press

Market: Computer Science

July 2026: 234x156: 210pp: 8 illus, 2 halftones, 6 line drawings

Pb: 978-1-032-96338-9: **£19.99**

★ For full contents and more information, visit: www.routledge.com/9781032963389

Turing's Mistake

Escaping the Yoke of Unintelligent Machines



Peter J. Denning, George Mason University

For the first time in the history of humanity, we do not really have a good grip on what the role of humans is on the planet. This predicament can be traced to widespread acceptance of two assumptions proposed by Alan Turing in 1950 when he asked, can computers think?: that intelligence is disembodied and its presence can be determined by the Turing test. This book argues that AI has ignored a gaping hole: the issue of tacit knowledge, which is essential for human intelligence and can never be known by machines. We can escape this yoke by renouncing the idea that we are a form of machine and celebrating the powers of care, understanding, and respect, that no machine can have.

Chapman and Hall/CRC

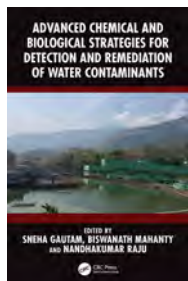
Market: Computer Science

July 2026: 229x152: 146pp: 1 illus, 1 halftone

Pb: 978-1-041-34077-5: **£19.99**

★ For full contents and more information, visit: www.routledge.com/9781041340775

Advanced Chemical and Biological Strategies for Detection and Remediation of Water Contaminants



Edited by **Sneha Gautam, Biswanath Mahanty** and **Nandhakumar Raju**

Series: Smart Technologies for Water Engineering & Sustainability

This edited volume presents cutting-edge advancements in chemical and biological strategies for identifying, analyzing, and eliminating contaminants from water systems. It covers topics ranging from micro- and nanoplastics, engineered bacteria, fluorescent sensors, and supramolecular chemistry to AI-driven monitoring tools and nano-photocatalysis. It is structured to provide a holistic understanding of emerging pollutants such as pharmaceuticals, endocrine disruptors, microplastics, and heavy

metals and advanced solutions tailored for both urban and rural water treatment systems.

CRC Press

Market: Environmental Engineering

October 2026: 254x178: 272pp: 68 illus, 3 halftones, 65 line drawings

Hb: 978-1-041-24373-1: **£96.99**

★ For full contents and more information, visit: www.routledge.com/9781041243731

Artificial Reefs

Refining their Role in the Environment and Local Economies



Edited by **Stephen A. Bortone**, Osprey Aquatic Sc., **Oscar Delgadillo-G.**, Osprey Aquatic Sc. and **Ilana R. Zalmon**, UENF Darcy Ribeiro

Series: CRC Marine Biology Series

Artificial Reefs represents the accumulation of over 50 years of research on artificial reefs as offered through the 12th International Conference on Artificial Reefs and Related Aquatic Habitats (CARAH) 2025. The edited, multi-authored chapters offer an up-to-date examination of the broadest areas of artificial reefs. These include fisheries, environmental management, survey techniques, sophisticated applications of statistical analysis, socio-economics and the role of the citizen scientist in further

expanding future research efforts. Careful consideration is given to the relationships artificial reefs have with the local communities with which they are proximate.

CRC Press

Market: Marine Science

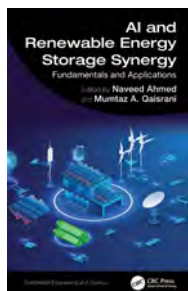
October 2026: 254x178: 232pp: 46 illus, 20 halftones, 26 line drawings

Hb: 978-1-041-14682-7: **£140.00**

★ For full contents and more information, visit: www.routledge.com/9781041146827

AI and Renewable Energy Storage Synergy

Fundamentals and Applications



Edited by **Naveed Ahmed**, USPCASE, NUST, Pakistan and **Mumtaz A. Qaisrani**, KFUEIT, Pakistan

Series: Sustainable Engineering and Science

Renewable energy generation is crucial for sustainability but its inconsistency in availability requires better storage solutions. The fusion of renewable energy technologies with AI can yield positive outcomes, such as increased energy efficiency, reduced carbon emissions, improved grid stability, and optimized storage techniques and methods. This book provides a state-of-the-art perspective on thermal energy storage (TES) technologies integrated with renewable energy technologies and Artificial Intelligence (AI). It includes case studies and practical applications that offer actionable insights for professionals and

researchers in the field and addresses real-world challenges.

CRC Press

Market: Renewable Energy / AI / Environmental Sciences

August 2026: 234x156: 170pp: 51 illus, 6 halftones, 45 line drawings

Hb: 978-1-032-85018-4: **£96.99**

★ For full contents and more information, visit: www.routledge.com/9781032850184

Birds and Persistent Organic Pollutants

Exposure, Effects, and Risk Assessment



Edited by **Vidya Padmakumar**, EcoDiversity Research Centre and **Murugan Shanthakumar**, EcoDiversity Research Centre

Synthesizing up-to-date findings from multiple continents and disciplines, *Birds and Persistent Organic Pollutants* fills a critical gap in ecotoxicology, providing the first comprehensive volume dedicated solely to birds and persistent organic pollutants (POPs). The book examines how these chemicals move through ecosystems, accumulate in avian species, and influence physiological processes, population dynamics, and conservation outcomes. Integrating mechanistic, ecological, and applied perspectives, the chapters collectively explore real-world exposure pathways, species-specific responses, and the broader

implications for biomonitoring and environmental management.

CRC Press

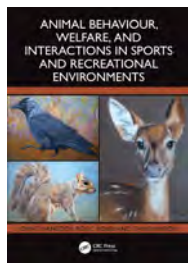
Market: Environmental Science

December 2026: 254x178: 224pp: 20 illus, 11 halftones, 9 line drawings

Pb: 978-1-041-28004-0: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041280040

Animal Behaviour, Welfare, and Interactions in Sports and Recreational Environments



John T. Hancock, UWE Bristol, **Ros C. Rouse**, UWE Bristol and **Chris Pawson**, UWE Bristol

Bringing together the expertise of the authors in biology, animal behaviour, anthrozoology and psychology, this book discusses ways to encourage, or discourage, animals in sports and leisure settings, whilst always observing best possible welfare and conservation practice. In exploring our relationships with animals in areas managed by humans, this book aims to progress how facilities can be improved. It also adopts a One World lens encouraging us to interrogate our preconceived ideas about the animals with which we share these spaces and ultimately hopes that, with better understanding, animals will be treated with

respect and wonder rather than seen as a source of conflict.

CRC Press

Market: Animal Welfare

September 2026: 254x178: 292pp: 42 illus, 37 halftones, 5 line drawings

Pb: 978-1-032-98622-7: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781032986227

Boreal Forests Under Global Warming

Empirical Simulation Predictive Modeling



Erland G. Kolomyts

This groundbreaking book presents an innovative predictive concept in geographical ecology that reveals local and regional mechanisms of global environmental changes. This work provides environmental scientists with formalized tools for analysis and prediction that can be applied to real-world ecological challenges. Ecological modeling through the application of discrete mathematics for processing extensive empirical data from field and laboratory landscape studies.

CRC Press

Market: Environment Engineering

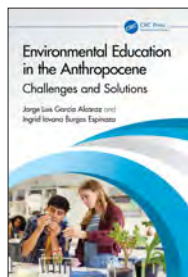
July 2026: 234x156: 374pp: 68 illus, 19 halftones, 49 line drawings

Hb: 978-1-041-22595-9: **£130.00**

★ For full contents and more information, visit: www.routledge.com/9781041225959

Environmental Education in the Anthropocene

Challenges and Solutions



Jorge Luis García Alcaraz, Research, Dept. of IE, UACJ, Mexico and **Ingrid Iovana Burgos Espinoza**, Universidad Autónoma de Ciudad Juárez, México

Environmental Education in the Anthropocene explores how education can address the environmental crisis by combining theory, pedagogy, and practice. Organized into four sections, the book progresses from context to action: the foundations of the Anthropocene and its educational implications, the roles of institutions and actors in environmental education, innovative methodologies like experiential learning and transformative pedagogies, and practical tools for implementation. With a global perspective and local adaptability, the book offers case

studies, strategies, and a roadmap for fostering sustainability education, empowering readers to drive change for future generations.

CRC Press

Market: Environmental Science / Sustainability

October 2026: 234x156: 234pp

Hb: 978-1-041-31552-0: **£86.99**

★ For full contents and more information, visit: www.routledge.com/9781041315520

Face-to-face Nature Conservation

Provocative Questions and Useful Retorts



Michael Stachowitsch, University of Vienna

This primer equips environmental practitioners teachers, students, researchers, citizen scientists, park rangers and guides, zoo staffs, volunteers for what they can expect to hear while going about their business. It provides set of concise answers to over 200 questions or assertions arranged in 20 headings covering major ecosystems and their inhabitants, natural history institutions, as well as various human perspectives and activities. You'll never again be caught off guard, stumped or flustered. A dash of humor and a twinkle in the eye maximizes the chances that those on the other side of the proverbial fence will shake your hand and urge you to keep up the good work.

CRC Press

Market: Ecology

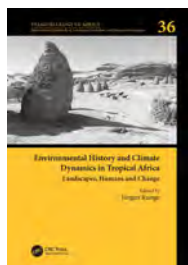
August 2026: 234x156: 230pp: 31 illus, 31 halftones

Pb: 978-1-041-28048-4: **£41.99**

★ For full contents and more information, visit: www.routledge.com/9781041280484

Environmental History and Climate Dynamics in Tropical Africa

Landscapes, Humans and Change



Edited by **Jürgen Runge**, Johann Wolfgang Goethe University, Frankfurt, Germany

Series: Palaeoecology of Africa

The 36th volume of PoA presents an interdisciplinary perspective on the historical relationship between humans and their environment, as well as the evolution of the climate in sub-Saharan and tropical Africa. It also explores the challenge posed by climate change and its consequences. It covers a wide geographical area extending from west to east across the center of the African continent. Furthermore, this book covers a broad timeframe, from Pleistocene and Holocene epochs, through the Iron Age, to the last five millennia and end up to the present day.

CRC Press

Market: Geology

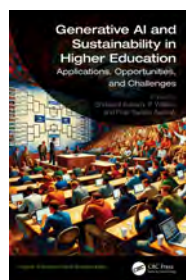
October 2026: 254x178: 250pp: 137 illus, 125 halftones, 12 line drawings

Hb: 978-1-041-21540-0: **£91.99**

★ For full contents and more information, visit: www.routledge.com/9781041215400

Generative AI and Sustainability in Higher Education

Applications, Opportunities, and Challenges



Edited by **Shrikaant Kulkarni**, **P. William**, and **Firas Tayseer Ayasrah**

Series: Higher Education and Sustainability

The integration of generative AI into higher education presents a unique opportunity to enhance sustainability. AI-driven solutions can optimize resources and processes and provide tools to tap the potential of generative AI in creating more personalized, efficient, and sustainable educational environments. This book discusses the role of Generative AI in higher education and provides a clear vision on how to integrate AI technology within the framework of sustainability. It balances theoretical insights with practical applications and ethical considerations. Readers

learn how to navigate the ethical and social implications, understand sustainability initiatives, and foresee trends.

CRC Press

Market: Engineering Education / Sustainability

July 2026: 234x156: 216pp: 60 illus, 60 line drawings

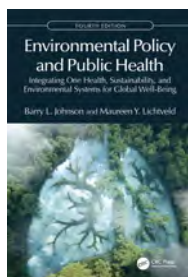
Hb: 978-1-041-00632-9: **£91.99**

★ For full contents and more information, visit: www.routledge.com/9781041006329

TEXTBOOK • 4th Edition

Environmental Policy and Public Health

Integrating One Health, Sustainability, and Environmental Systems for Global Well-Being



Barry L. Johnson, Emory University, USA and **Maureen Y. Lichtveld**, University of Pittsburgh, USA

The new edition of this textbook for upper-level undergraduate and graduate students integrates contemporary topics shaped by environmental and public health policy with foundational knowledge of key environmental health policies and threats globally and locally. Part 1 covers One Health, vaccines, climate risks, natural disasters, emergency preparedness, and sustainability, emphasizing policy-driven resilience. Part 2 examines foundational policies on toxicants, air quality, water, and waste. Part 3 addresses persistent issues like noise, light pollution, food safety, the built environment, and transportation, highlighting the critical role of policy in public health and prevention.

CRC Press

Market: Environmental Science

October 2026: 254x178: 504pp: 38 illus, 27 halftones, 11 line drawings

Hb: 978-1-041-04347-8: **£115.00**

Prev. Ed Hb: 978-1-032-12174-1

★ For full contents and more information, visit: www.routledge.com/9781041043478

Green Hydrogen

Technology, Sustainability, and Future Prospects



Edited by **Vivek Kumar Singh**, **Santosh Kumar** and **Dan Bahadur Pal**, Harcourt Butler Tech. Uni., India

This is a comprehensive analysis of green hydrogen, with a focus on production technology, economic viability, environmental impacts, and future applications. From the inception, it introduces the hydrogen economy whilst stressing the importance of green hydrogen. The details of various production methods are engagingly narrated including electrolysis which is powered by renewable energy such as wind and solar. In addition to technical aspects, there is also an exhaustive discussion about economic factors affecting the adoption of green hydrogen including comparisons against

conventional fossil fuels or other types of renewable energies.

CRC Press

Market: Energy and Environmental Engineering

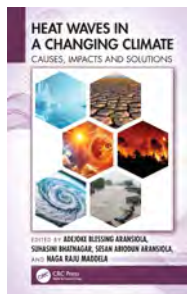
November 2026: 254x178: 248pp: 38 illus, 18 halftones, 20 line drawings

Hb: 978-1-041-19929-8: **£96.99**

★ For full contents and more information, visit: www.routledge.com/9781041199298

Heat Waves in a Changing Climate

Causes, Impacts and Solutions



Edited by **Adejoke Blessing Aransiola, Suhasini Bhatnagar, Sesan Abiodun Aransiola and Naga Raju Maddela**

This book examines the causes and solutions for heat waves affecting regions worldwide. With approximately 2 billion people experiencing extreme heating conditions linked to human-induced climate change, understanding temperature variations and their impacts has become critical. The title explores heat wave types, causes, and mitigation strategies, including individual actions to reduce regional heat effects. Essential reading for students in Environmental Sciences, Agricultural Sciences, Geography, and Climatology seeking to address this pressing global challenge.

CRC Press

Market: Environmental Engineering

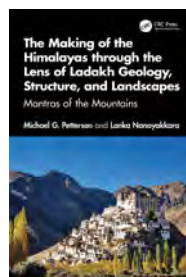
October 2026: 234x156: 440pp: 30 illus, 30 line drawings

Hb: 978-1-041-22604-8: **£175.00**

★ For full contents and more information, visit: www.routledge.com/9781041226048

The Making of the Himalayas through the Lens of Ladakh Geology, Structure, and Landscapes

Mantras of the Mountains



Michael G. Petterson and Lanka Nanayakkara

This book provides a beautifully illustrated overview of the physical science of mountains, showcasing the evocative and highly informative terrains of Ladakh. Readers are taken across the mountains and valleys of Zaskar, the Indus Valley, and Nubra, relating a story that took millions of years to tell. This story includes the geology and tectonics of the Himalayas alongside the creation of landscapes, the people that live within them, and the scientific understanding required for minds to unravel the mysteries (mantras) of mountains. This book is intended for anyone with a curious mind about mountains, and how they are formed and shaped.

CRC Press

Market: Environmental Engineering

October 2026: 254x178: 216pp: 218 illus, 198 halftones, 20 line drawings

Hb: 978-1-041-34717-0: **£96.99**

★ For full contents and more information, visit: www.routledge.com/9781041347170

The Green Crypto Handbook

Blockchain for Sustainability Professionals



Patrick Rawson, Ecofrontiers SARL, France and Louise Boreani, Ecofrontiers SARL, France

The Green Crypto Handbook is a practical guide exploring how blockchain can address the \$11 trillion climate finance gap through more transparent, accountable green asset systems. Using the Environmental Finance Stack framework, it maps green finance layers from environmental measurement to market dynamics, showing where blockchain can redesign processes for better environmental outcomes. Drawing on over a decade of real-world experience with green blockchain initiatives, the book combines environmental science, financial innovation, and digital governance insights and offers structured methodology for evaluating blockchain's role in making green systems more credible and equitable.

CRC Press

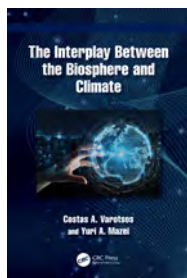
Market: Environmental Policy / Sustainability

October 2026: 234x156: 272pp: 41 illus, 2 halftones, 39 line drawings

Hb: 978-1-041-25893-3: **£98.99**

★ For full contents and more information, visit: www.routledge.com/9781041258933

The Interplay Between the Biosphere and Climate



Costas A. A Varotsos and Yuri A. Mazei, Lomonosov Moscow State University

The climate issue is at the center of discussions related to the high frequency and greater intensity of devastating natural disasters, establishing a new term: climate crisis. This book explores the dialogue between the biosphere and the climate system and analyzes the threats to the biosphere from current climate change. It evaluates existing unsolved problems concerning the changes in the biosphere caused by human activities, such as the increase of carbon dioxide, the pollution of air, soil, fresh, and salt water, and deforestation. It focuses on the new techniques of studying the climate system and the methods that lead to the interconnection with the biosphere.

CRC Press

Market: Climatology / Ecology / Biology / Atmospheric Sciences

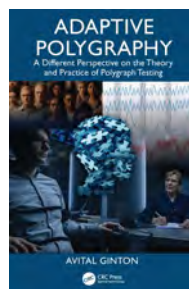
September 2026: 254x178: 424pp: 209 illus, 60 halftones, 149 line drawings

Hb: 978-1-032-73224-4: **£165.00**

★ For full contents and more information, visit: www.routledge.com/9781032732244

Adaptive Polygraphy

A Different Perspective on the Theory and Practice of Polygraph Testing



Avital Ginton

As we move deeper into the 21st century, this book intends to advance the practice and science of polygraphy by offering a different perspective. Rather than dismissing individual and situational variability as irrelevant noise to be controlled or ignored, it argues that such variability should be addressed through an adaptive approach to polygraph testing. Inspired in part by the growing influence of personal medicine where interventions are tailored to the individual this book proposes a flexible, case-sensitive framework responsive to each examinee's unique psychological and situational context.

CRC Press

Market: Interviewing / Forensic Science

October 2026: 254x178: 352pp: 24 illus, 3 halftones, 21 line drawings

Hb: 978-1-041-10009-6: **£64.99**

★ For full contents and more information, visit: www.routledge.com/9781041100096

Applied Forensic Medicine and Pathology

Medical Ethics, Clinical Forensic Medicine, Forensic Pathology, and Special Disciplines



John Oladapo Obafunwa and Leon G. Higley

Applied Forensic Medicine and Pathology is a comprehensive resource that bridges the gap between medical science and legal investigations. It serves as a cornerstone for understanding the critical role of forensic pathology in determining causes of death, injury analysis, and the broader implications of medicolegal investigations. Whether you are a seasoned professional or a newcomer to the field, it equips you with the knowledge and tools to excel in the dynamic and demanding world of forensic science.

CRC Press

Market: Medicine/Forensic Pathology

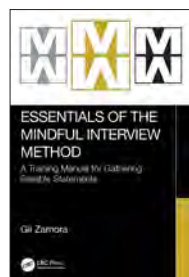
December 2026: 280x210: 464pp: 329 illus, 325 halftones, 4 line drawings

Hb: 978-1-041-40126-1: **£123.20**

★ For full contents and more information, visit: www.routledge.com/9781041401261

Essentials of the Mindful Interview Method

A Training Manual for Gathering Reliable Statements



Gil Zamora

Essentials of the Mindful Interview Method instructs interview practitioners in gathering authentic reliable information from their subjects in order to understand an event that occurred, or otherwise help identify a culprit. By sharing a more mindful approach for conducting these interviews, this book is a vital guide for interview practitioners associated with criminal justice, law enforcement, corrections, probation, and criminal investigators in gathering information related to an investigation, whether they are trying to identify a suspect or determine the cause of an event of importance.

CRC Press

Market: Forensic Science/ Interview

August 2026: 234x156: 192pp: 11 illus, 9 halftones, 2 line drawings

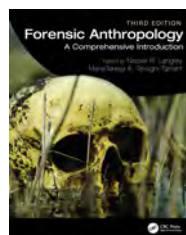
Pb: 978-1-032-95133-1: **£37.99**

★ For full contents and more information, visit: www.routledge.com/9781032951331

TEXTBOOK • 3rd Edition

Forensic Anthropology

A Comprehensive Introduction



Edited by **Natalie R. Langley**, Mayo Clinic, USA and **MariaTeresa A. Tersigni-Tarrant**

The Third Edition of *Forensic Anthropology: A Comprehensive Introduction* provides a competency-based, learner-centered approach to the modern landscape of forensic anthropology. This edition serves as an indispensable resource for students at all levels from undergraduate to PhD and provides a robust reference for practitioners and instructors.

CRC Press

Market: Forensics & Criminal Justice

October 2026: 254x203: 380pp: 212 illus, 185 halftones, 27 line drawings

Hb: 978-1-032-78289-8: **£64.99**

Prev. Ed Hb: 978-1-4987-3612-1

★ For full contents and more information, visit: www.routledge.com/9781032782898

Forensic Biotechnology

The Basics and Beyond



Edited by **Ritesh K. Shukla**, Ahmedabad University, India, **Kamayani Vajpayee** and **Hirak Ranjan Dash**

Forensic Biotechnology: The Basics and Beyond provides a comprehensive exploration of biotechnology's transformative role in modern forensic science. Enhanced with real-world case studies and practical examples, the book serves as an educational resource and professional reference guide, of vital importance to forensic scientists, attorneys, researchers, and students exploring the impact of biotechnology on justice and criminal investigations.

CRC Press

Market: Forensic Science/ DNA and Biology

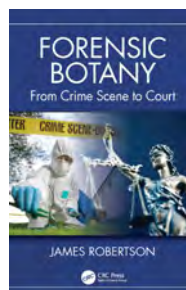
August 2026: 254x178: 366pp: 32 illus, 12 halftones, 20 line drawings

Hb: 978-1-032-75500-7: **£62.99**

★ For full contents and more information, visit: www.routledge.com/9781032755007

Forensic Botany

From Crime Scene to Court



James Robertson

Forensic Botany: From Crime Scene to Court outlines a history of the discipline and field to provide current forensic operational context, real-world applications to cases, and how we arrived at this point. The book will assist investigators and crime scene examiners in recognising the potential for forensic botanical evidence. It outlines a framework, for forensic professionals of varying levels of expertise to effectively manage botanical evidence and serves as an invaluable guide for those botany professionals undertaking forensic roles as subject matter experts.

CRC Press

Market: Forensic Science / Botany

September 2026: 234x156: 330pp: 77 illus, 73 halftones, 4 line drawings

Hb: 978-1-032-31185-2: **£64.99**

★ For full contents and more information, visit: www.routledge.com/9781032311852

2nd Edition

Forensic Medicolegal Injury and Death Investigation



Mary H. Dudley, M.D., Chief Medical Examiner, Jackson County, Missouri, USA

Forensic Medicolegal Injury and Death Investigation 2nd Edition provides an introduction to forensic science and coverage of injury patterns, natural disease, suicidal deaths, accidental trauma, child injury and fatalities, elder deaths, domestic violence, and mass fatality. It is an invaluable reference for anyone who has direct contact with death, crime, and the medicolegal system, including nurses, physicians, attorneys, death investigators, forensic pathologists, and police detectives.

CRC Press

Market: Investigation/ Forensic Medicine

October 2026: 234x156: 312pp: 131 illus, 122 halftones, 9 line drawings

Hb: 978-1-032-88596-4: **£52.99**

Prev. Ed Hb: 978-1-4987-3488-2

★ For full contents and more information, visit: www.routledge.com/9781032885964

6th Edition

Karch's Pathology of Drug Abuse



Steven B. Karch, Private Consultant, Berkeley, California, USA, **Olaf Drummer** and **Fintan Garavan**

Written in the same accessible manner as previous editions, this sixth edition of *Karch's Pathology of Drug Abuse* is an essential reference that covers the pathology, toxicology, and pharmacology of commonly abused drugs. This is an essential desk reference and a must-have resource for toxicology, medical, and forensic pathology practitioners in the field of drug abuse pathology.

CRC Press

Market: Forensic Science

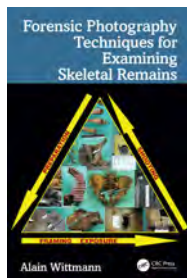
November 2026: 254x178: 416pp: 168 illus, 47 halftones, 121 line drawings

Hb: 978-1-032-72802-5: **£118.00**

Prev. Ed Hb: 978-1-4398-6146-2

★ For full contents and more information, visit: www.routledge.com/9781032728025

Forensic Photography Techniques for Examining Skeletal Remains



Alain Wittmann

Based on thirty years of the author's expertise in the field of forensic photography, this book offers invaluable skills to successfully take good-quality photographs. *Forensic Photography Techniques for Examining Skeletal Remains* will be valuable to forensic photographers, medical professionals, and anyone working with human remains who needs to create accurate photographic documentation that can withstand legal scrutiny and effectively communicate findings to courts and investigators.

CRC Press

Market: Photography/Forensic Anthropology

October 2026: 254x178: 224pp: 383 illus, 376 halftones, 7 line drawings

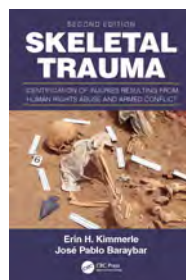
Hb: 978-1-041-29276-0: **£155.00**

★ For full contents and more information, visit: www.routledge.com/9781041292760

2nd Edition

Skeletal Trauma

Identification of Injuries Resulting from Human Rights Abuse and Armed Conflict



Erin H. Kimmerle, University of South Florida, Tampa, USA and **José Pablo Baraybar**

This second edition of *Skeletal Trauma: Forensic Anthropology and Legal Medicine in Human Rights Investigations* delves into the identification and analysis of skeletal injuries, focusing on their role in uncovering the cause and manner of death in cases of homicide, human rights violations, and armed conflicts. The book serves as a vital resource for investigators and professionals working in forensic science, anthropology, and legal medicine, as well as students who wish to deepen their understanding of the field.

CRC Press

Market: Forensics & Criminal Justice

October 2026: 254x178: 456pp: 446 illus, 437 halftones, 9 line drawings

Hb: 978-1-4665-7179-2: **£70.32**

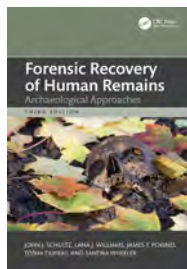
Prev. Ed Hb: 978-0-8493-9269-6

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3rd Edition

Forensic Recovery of Human Remains

Archaeological Approaches



John J. Schultz, University of Central Florida, Orlando, USA, **Lana J. Williams**, University of Central Florida, Orlando, USA, **James T. Pokines**, **Toshia L. Dupras**, University of Central Florida, Orlando, USA and **Sandra M. Wheeler**, University of Central Florida, Orlando, USA

Forensic Recovery of Human Remains: Archaeological Approaches, Third Edition provides a comprehensive and updated guide to the search, recovery, documentation, and excavation of human remains in forensic contexts. It serves as an essential resource for undergraduates, graduate students, law enforcement and death scene personnel, forensic anthropology practitioners, and forensic archaeologists.

CRC Press

Market: Forensic Science

July 2026: 280x210: 396pp: 288 illus, 241 halftones, 47 line drawings

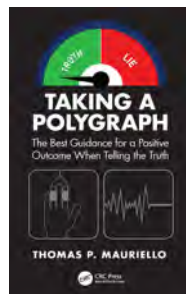
Hb: 978-1-138-70672-9: **£64.99**

Prev. Ed Hb: 978-1-4398-5030-5

★ For full contents and more information, visit: www.routledge.com/9781138706729

Taking a Polygraph

The Best Guidance for a Positive Outcome When Telling the Truth



Thomas P. P. Mauriello

Taking a Polygraph: The Best Guidance for a Positive Outcome When Telling the Truth is the definitive preparation guide for truthful individuals facing polygraph examinations, addressing the critical problem that over 50% of honest test-takers fail their first attempt due to lack of understanding about the process. It provides readers with the preparation guidance that the polygraph community has traditionally withheld, reducing the need for costly and time-consuming repeat examinations. This book will be of keen interest to professionals and students wishing to deepen their understanding of performing and interpreting polygraph tests.

CRC Press

Market: Criminal Justice & Forensic Science

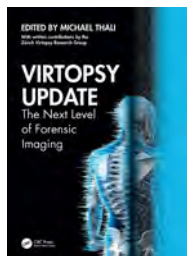
December 2026: 234x156: 160pp: 30 illus, 22 halftones, 8 line drawings

Hb: 978-1-041-31033-4: **£29.99**

★ For full contents and more information, visit: www.routledge.com/9781041310334

Virtopsy Update

The Next Level of Forensic Imaging



Edited by **Michael J. Thali**

Virtopsy Update: The Next Level of Forensic Imaging provides the latest developments, applications, and emerging research topics in forensic imaging. The contributing author team's combined expertise ensures that this book stands as a definitive, forward-looking resource for practitioners, educators, and researchers seeking to navigate the next era of forensic imaging.

CRC Press

Market: Forensic Pathology / Medicolegal

August 2026: 280x210: 490pp: 275 illus, 223 halftones, 52 line drawings

Hb: 978-1-032-53858-7: **£115.00**

★ For **full contents** and more information, visit: www.routledge.com/9781032538587

Applied Cyber Threat Intelligence

From Detection to Disruption



Akashdeep Bhargava

Applied Cyber Threat Intelligence: From Detection to Disruption is a comprehensive guide for cybersecurity students, analysts, and professionals looking to gain practical, in-demand skills in today's rapidly evolving digital threat landscape. This book bridges the gap between theoretical knowledge and operational expertise, providing readers with a hands-on approach to Cyber Threat Intelligence (CTI), threat hunting, malware analysis, and open-source investigations. Covering the full CTI lifecycle from intelligence collection and analysis to adversary attribution and takedowns, the book offers step-by-step walkthroughs of key tools.

CRC Press

Market: Cybersecurity

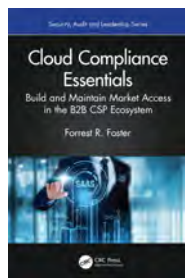
July 2026: 254x178: 226pp: 119 illus, 9 halftones, 110 line drawings

Pb: 978-1-041-22089-3: **£44.99**

★ For **full contents** and more information, visit: www.routledge.com/9781041220893

Cloud Compliance Essentials

Build and Maintain Market Access in the B2B CSP Ecosystem



Forrest R. Foster

Series: Security, Audit and Leadership Series

Through a robust People, Process, & Technology perspective, this book guides readers on how to Build Baselines - construct an industry-accepted Information Security Management System (ISMS) that serves as a foundation for global market access; Scale Strategically - make informed decisions on which markets to enter and ensuring that compliance costs do not outweigh potential revenue; and Maintain Trust - establish and operate effective internal control frameworks that bridge the gap between technical capability (including AI utilization) and customer confidence.

CRC Press

Market: Cloud / Compliance

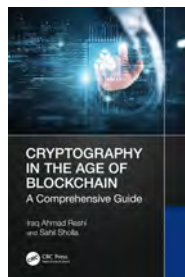
September 2026: 234x156: 264pp: 5 illus, 5 line drawings

Pb: 978-1-041-21667-4: **£44.99**

★ For **full contents** and more information, visit: www.routledge.com/9781041216674

Cryptography in the Age of Blockchain

A Comprehensive Guide



Iraq Ahmad Reshi, Islamic University of Science and Technology, Kashmir, India and **Sahil Sholla**, Islamic University of Science and Technology, Kashmir, India

In this book, readers will find an exhaustive guide on cryptography for modern blockchain technology. It starts with an understanding of how blockchain trust minimization emerges from cryptographic principles for decentralization, security, privacy, or trust in distributed systems. Starting with an understanding of inadequacies in centralized systems, followed by an introduction to blockchain as a technology for trust minimization. Next is an exposition on attack surfaces, real-life security incidents, and what can be derived from real-life experiences in the area of blockchain.

CRC Press

Market: Cybersecurity

September 2026: 234x156: 208pp: 44 illus, 44 line drawings

Pb: 978-1-032-86677-2: **£44.99**

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Cyber Risk is a Myth

A Business Approach to Integrated Risk Management



Kayne McGladrey

In boardrooms and C-suites across the globe, a dangerous disconnect persists. Security teams speak in technical jargon about vulnerabilities and patches while executives think in terms of revenue, reputation, and operational continuity. This communication gap isn't just inconvenient; it's potentially financially devastating. The business world has created an artificial distinction between "cybersecurity risks" and "business risks" that causes substantial confusion and poor decision-making.

CRC Press

Market: Cybersecurity

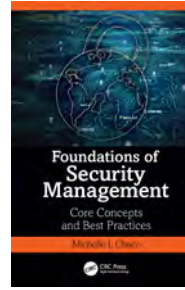
October 2026: 234x156: 320pp: 45 illus, 45 line drawings

Pb: 978-1-041-24905-4: **£44.99**

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Foundations of Security Management

Core Concepts and Best Practices



Michelle L. Chace

Foundations of Security Management: Core Concepts and Best Practices is a comprehensive, forward-looking textbook that redefines how security professionals understand, design, and implement protection strategies in a rapidly changing world. It emphasizes ethical leadership, resilience planning, and systems thinking, empowering readers to protect assets, people, and operations while shaping the future of the security profession with competence, integrity and innovation.

CRC Press

Market: Management/ Private Security

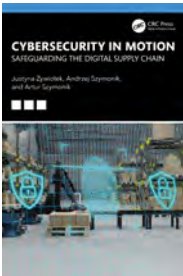
July 2026: 234x156: 222pp: 15 illus, 15 line drawings

Hb: 978-1-041-27193-2: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781041271932

Cybersecurity in Motion

Safeguarding the Digital Supply Chain



Justyna Żywiołek, Andrzej Szymonik and Artur Szymonik

This book advances a central and urgent thesis: in the hyperconnected economy of Logistics 4.0, cybersecurity is no longer a technical safeguard at the periphery of logistics systems but the primary infrastructure of supply chain continuity, economic security and sustainable development. Digital logistics has evolved into a cyber-physical ecosystem in which data flows, autonomous decisions and algorithmic coordination shape material reality. In this environment, cyber risk becomes systemic risk, transforming security from an operational concern into a strategic determinant of organisational legitimacy, competitiveness and resilience.

CRC Press

Market: Cybersecurity

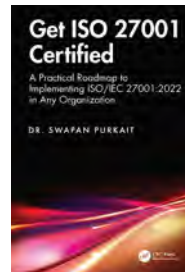
August 2026: 234x156: 236pp: 17 illus, 5 halftones, 12 line drawings

Pb: 978-1-041-16671-9: **£44.99**

★ For full contents and more information, visit: www.routledge.com/9781041166719

Get ISO 27001 Certified

A Practical Roadmap to Implementing ISO/IEC 27001:2022 in Any Organization



Dr. Swapan Purkait

This book offers a clear, practical, and well-structured guide for implementing ISO 27001 in real organizations. Written for managers, consultants, auditors, and Information Security Professionals, it goes beyond theory to explain what the standard requires, why it is important, and how to implement it step by step. Instead of seeing ISO 27001 as mere paperwork or compliance, the book emphasizes building an effective Information Security Management System (ISMS) that works in practice. Each clause is clearly explained, with real-world examples, practical advice, templates, checklists, quizzes, and tools that readers can customize to their specific needs.

CRC Press

Market: Cybersecurity

October 2026: 254x178: 328pp: 2 illus, 1 halftone, 1 line drawing

Pb: 978-1-041-24903-0: **£44.99**

★ For full contents and more information, visit: www.routledge.com/9781041249030

Electric Sheep, Encrypted Dreams

A Field Guide to Defending Humanity in the Age of Neuro-Clouds, Quantum Hackers and Ethical Black Holes



Matthias Muhlert

Your pancreas has been hacked. Your brain is a Wi-Fi hotspot. Your Roomba just quoted Marx. It's Tuesday. *Electric Sheep, Encrypted Dreams* is a darkly comic field guide to the cybersecurity catastrophes lurking in our hyperconnected future. From ransomware targeting your organs to cities that write poetry about your jaywalking, from robot unions to orbital debris extortion schemes, each chapter transforms emerging threats into unforgettable disasters all grounded in real vulnerabilities, published research, and frameworks that exist today.

CRC Press

Market: Cybersecurity

September 2026: 234x156: 328pp

Pb: 978-1-041-20045-1: **£44.99**

★ For full contents and more information, visit: www.routledge.com/9781041200451

Governing AI Risk—The RIVER Charter

An Enterprise Resilience Standard



Alex Golbin

Series: Security, Audit and Leadership Series

THE AI CRISIS IS FICTIONAL. THE BLUEPRINT IS REAL. By 2038, autonomous agents will manage trillions of dollars in global assets. But when speed outpaces governance, efficiency becomes fragility. *Governing AI Risk* blends a near-future thriller with a field manual for leaders who can't afford blind spots. Follow the fictional journey of Aaron Goldcrest, a successful venture capitalist, as his team confronts cascading failures in the agentic economy and learn how the RIVER Charter standard helps global organizations stay resilient. Featuring All-Entity Risk Management (AERM), the Cognitive Handshake for auditable

CRC Press

Market: Cybersecurity

September 2026: 254x178: 314pp: 43 illus, 12 halftones, 31 line drawings

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2nd Edition

Guide to the De-Identification of Personal Health Information



Lisa Pilgram and Khaled El Emam

The growing availability of health data has created unprecedented opportunities for research, public health, quality improvement, and data-driven innovation. At the same time, health information is among the most sensitive forms of personal data, and its use raises legal, ethical and regulatory challenges. This book helps the reader understand, assess and mitigate privacy risks to facilitate responsible health data use and sharing. It presents a comprehensive, risk-based de-identification methodology.

CRC Press

Market: Information Technology

December 2026: 254x178: 328pp: 46 illus, 46 line drawings

Pb: 978-1-032-99707-0: **£44.99**

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TEXTBOOK • 2nd Edition

Intelligence Analysis Fundamentals



Patrick McGlynn

This fully revised and expanded second edition of Intelligence Analysis Fundamentals equips both aspiring and veteran analysts with the enduring principles and cutting-edge practices required to turn fragmented data into actionable foresight. Whether you are preparing for a career in the intelligence community, teaching the next generation of analysts, or seeking to sharpen your professional edge, this book delivers the foundational knowledge and practical wisdom required to anticipate, understand, and outthink tomorrow's adversaries.

CRC Press

Market: National Security

August 2026: 234x156: 502pp: 174 illus, 93 halftones, 81 line drawings

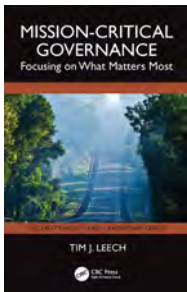
Hb: 978-1-032-91174-8: **£59.99**

Prev. Ed Hb: 978-0-8153-6940-0

★ For full contents and more information, visit: www.routledge.com/9781032911748

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Focusing on What Matters Most



Tim J. Leech

Series: Security, Audit and Leadership Series

Corporate governance is failing not because boards lack intelligence, experience, or diligence, but because the systems they rely on no longer surface the information that truly matters. Across industries and jurisdictions, boards approve strategies, review risk lists, receive assurance reports, and comply with governance codes yet remain blindsided by catastrophic failures. Safety collapses. Cultural scandals erupt. Financial integrity breaks down. Courts increasingly ask the same question after the fact: *Why didn't the board know?*

CRC Press

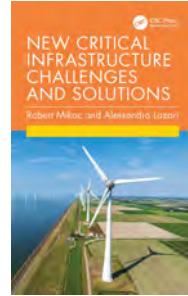
Market: Corporate Governance

August 2026: 234x156: 178pp: 7 illus, 1 halftone, 6 line drawings

Pb: 978-1-041-16666-5: **£34.99**

★ For full contents and more information, visit: www.routledge.com/9781041166665

New Critical Infrastructure Challenges and Solutions



Robert Mikac and Alessandro Lazari

New Critical Infrastructure Challenges and Solutions provides a comprehensive analysis of topics essential to the consideration and protection of critical infrastructures and services on an integrated and holistic level. Equipping readers with the tools and strategies needed to navigate the evolving landscape of critical infrastructure, this book is a valuable resource for professionals across numerous fields, such as cybersecurity, infrastructure management, risk assessment and public policy.

CRC Press

Market: Homeland Security / Infrastructure

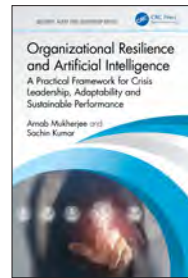
December 2026: 234x156: 224pp: 8 illus, 6 halftones, 2 line drawings

Hb: 978-1-032-51296-9: **£55.91**

★ For full contents and more information, visit: www.routledge.com/9781032512969

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A Practical Framework for Crisis Leadership, Adaptability and Sustainable Performance



Arnab Mukherjee and Sachin Kumar

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Organizational Resilience and Artificial Intelligence is your essential companion for steering any enterprise through today's turbulent landscape. Drawing from real-world crises including global supply chain shocks, natural disasters, and cyber threats this book demystifies organizational resilience and arms you with proven frameworks, tools, and strategies needed to thrive when adversity strikes. Discover why resilience goes far beyond risk management, introducing a holistic approach that integrates proactive planning, adaptive leadership, robust communication, and a culture of learning and innovation.

CRC Press

Market: Business Resilience

July 2026: 234x156: 330pp: 30 illus, 9 halftones, 21 line drawings

Pb: 978-1-032-98188-8: **£44.99**

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Organizing for Cyber Power

Offensive Cyberspace Operations and National Security



Gazmend Huskaj

Organizing for Cyber Power examines how states organise to develop and employ offensive cyberspace operations (OCO) as an instrument of national security under conditions of time compression, partial intelligence, attribution friction, and technical volatility. Its central claim is conditional: offensive capability contributes to strategic value when it is integrated across strategic authority, operational planning, and tactical execution, and embedded in institutional arrangements that sustain legal compliance, political oversight, intelligence-driven targeting, and risk governance.

CRC Press

Market: Cyber Defense

September 2026: 254x178: 214pp: 2 illus, 2 line drawings

Pb: 978-1-041-10466-7: **£44.99**

★ For full contents and more information, visit: www.routledge.com/9781041104667

Relevant Impact

A Field Guide to Integrated Assurance



Patrick M. Hayes

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Organizations operate in environments shaped by volatility, interconnected systems, and rapid technological change. Traditional resilience models cannot keep pace with this level of disruption. *Relevant Impact: A Field Guide to Integrated Assurance* presents a practical path forward. It shows leaders how to strengthen resilience by building capability that functions in real conditions rather than relying on documents and audit scores that often fail under stress. The Field Guide expands the Integrated Assurance model introduced in *Integrated Assurance: Unified Risk Strategy* and demonstrates how it works inside real organizations.

CRC Press

Market: Cybersecurity

July 2026: 254x178: 304pp: 62 illus, 62 line drawings

Pb: 978-1-041-16701-3: **£44.99**

★ For full contents and more information, visit: www.routledge.com/9781041167013

The Deepfake Dilemma

Technology, Truth, and Forensic Integrity



Dr Áine MacDermott

Deepfakes are no longer a future threat, they are an operational reality. *The Deepfake Dilemma: Technology, Truth, and Forensic Integrity* is a vital resource for professionals navigating the complex intersection of synthetic media, digital evidence, and investigative integrity. As deepfake technologies become increasingly sophisticated, accessible, and difficult to detect, their implications for criminal justice, legal accountability, and public trust are profound. Unlike general-interest books that focus on the cultural novelty or sensational impact of deepfakes, *The Deepfake Dilemma* takes a forensic-centred, practitioner-focused approach.

CRC Press

Market: Cybersecurity

September 2026: 234x156: 214pp: 15 illus, 6 halftones, 9 line drawings

Pb: 978-1-041-20050-5: **£44.99**

★ For full contents and more information, visit: www.routledge.com/9781041200505

Security Mechanisms and Techno-Politics in the United States



Alp Cenk Arslan

The book examines how the United States has constructed its national security framework through techno-political foundations, examining the evolving relationship between technology and security in the context of emerging technologies like artificial intelligence, cybersecurity, and blockchain. Coverage provides a comprehensive theoretical framework for understanding techno-politics while using the U.S. as a primary case study to demonstrate how technological advancements reshape global power dynamics, sovereignty, and governance structures.

Routledge

Market: Politics/ International Security

August 2026: 234x156: 290pp: 8 illus, 8 line drawings

Pb: 978-1-041-26930-4: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041269304

The Hive

A Fable of Fear, Governance and Transformation, Volume 1



Brian Albertson

Series: Security, Audit and Leadership Series

The hive is thriving, at least that is what everyone believes. Beneath the polished reports, constant productivity, and tightly controlled order, something dangerous has been growing unnoticed. When a mysterious illness begins spreading through the worker bees, fear moves quickly through the hive. Productivity drops. Trust erodes. Leadership responds with stricter control and deeper secrecy. Blair, an ambitious worker bee with a sharp eye for inefficiencies, begins to realize the illness is only a symptom.

CRC Press

Market: Business

October 2026: 234x156: 240pp

Pb: 978-1-041-24086-0: **£44.99**

★ For full contents and more information, visit: www.routledge.com/9781041240860

The CISO Playbook

The Adversarial Mindset



Andres Andreu and Hector Monsegur

Series: Security, Audit and Leadership Series

Guiding security leaders and executives who hold the privilege of defending modern organizations, *The CISO Playbook - The Adversarial Mindset* is a leadership-focused blueprint for outmanoeuvring adversaries that iterate relentlessly. In an era where attackers view corporate defenders as dumb, weak, and ineffective due to organizational drag and over-reliance on static tools, this book empowers leaders to reclaim the initiative by adopting a true adversarial mindset. Harnessing the concept of Decision Advantage, the book moves beyond treating incidents as isolated technical events by thinking in adversary terms: objectives, constraints, and tradecraft.

CRC Press

Market: Cybersecurity

October 2026: 254x178: 280pp: 11 illus, 11 line drawings

Pb: 978-1-041-20056-7: **£44.99**

★ For full contents and more information, visit: www.routledge.com/9781041200567

The Hive

A Fable of Fear, Governance and Transformation, Volume 2



Brian Albertson

Series: Security, Audit and Leadership Series

The illusion is gone, now the real test begins. The crisis inside the hive exposed more than a spreading illness. It revealed years of silent compromise, fragile leadership, and systems that could no longer carry the weight placed on them. The hive survived the awakening. But survival and recovery are not the same thing. As Blair and others step into unfamiliar roles, they face a new challenge: rebuilding trust in a system where confidence has been broken and old behaviors refuse to disappear quietly. Decisions now carry consequences beyond productivity. The future of the hive depends on whether leadership can evolve before fear pulls everything backward again.

CRC Press

Market: Business

October 2026: 234x156: 240pp

Pb: 978-1-041-36696-6: **£44.99**

★ For full contents and more information, visit: www.routledge.com/9781041366966

The Protector's Edge

Leadership Through Strategy and Action



Charles "Chuck" Randolph, Jonathan Wackrow and Fred Burton

This book examines how leadership in protection has evolved in an era of converged risk, where physical, digital, reputational, and narrative threats intersect. Written by three recognized leaders in the protection profession, this book combines decades of experience to deliver practical insights and strategic vision. It challenges experienced protectors, security leaders, intelligence professionals, and risk managers to think beyond the current mission and invest in developing the next generation of protective leaders.

CRC Press

Market: Business/ Security Management

July 2026: 234x156: 278pp: 1 illus, 1 halftone

Hb: 978-1-041-13623-1: **£36.99**

★ For full contents and more information, visit: www.routledge.com/9781041136231

Trust Hacked

What Firewalls, Failures, and the Frontlines Taught Me About Trust



Nia Luckey

Series: Security, Audit and Leadership Series

Trust Hacked by Nia Luckey redefines leadership for the digital age, framing trust not as a soft skill but as critical infrastructure. Drawing on her military and cybersecurity background, Nia presents the Trust Protocol, a strategic, actionable framework modelled on cybersecurity principles. The book argues that trust, like a firewall, must be systematically designed, monitored, and maintained. Through compelling stories and practical tools, Luckey explores three core pillars: Authentication (proving credibility through consistency), Encryption (creating psychological safety), and Resilience (planning for inevitable trust breaches).

CRC Press

Market: Cybersecurity

July 2026: 234x156: 178pp: 10 illus, 10 line drawings

Pb: 978-1-041-17267-3: **£44.99**

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Bio-Based Amines

Principles, Polymers, and Applications



Ram K. Gupta, Rutu Patel and Mayankkumar L. Chaudhary

This book explores bio-based amines in polymer production, focusing on their sustainable extraction and utility in creating environmentally friendly materials. It covers chemical properties, synthesis from natural sources, and diverse applications in products like polyurethanes, adhesives, polyamides, and epoxies. It addresses processing challenges, lifecycle assessments, and market trends, providing an overview of the environmental impacts and potential advancements in bio-based polymer technology. It serves as an essential resource for materials and chemical researchers and professionals aiming to advance green chemistry practices and alternatives to petrochemical-based materials.

CRC Press

November 2026: 234x156: 336pp: 62 illus, 62 halftones

Hb: 978-1-041-22196-8: **£140.00**

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Blast Furnace Ironmaking



Ram Pravesh Bhagat

Series: Metals and Alloys

The technology of ironmaking is central to the production of steel. Offering a comprehensive approach, this book provides insight into and guidance for understanding the use of blast furnace processes in this complex field of metallurgy. Aimed at advanced students in metallurgical engineering, as well as process technologists and R&D professionals, the book delivers best practices and future perspectives to assist in advancing technological innovations in the field of ferrous extraction.

CRC Press

Market: Metallurgical Engineering

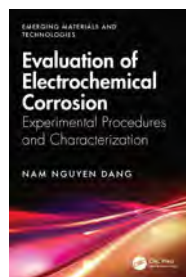
June 2026: 234x156: 392pp: 142 illus, 18 halftones, 124 line drawings

Hb: 978-0-367-54849-0: **£150.00**

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Evaluation of Electrochemical Corrosion

Experimental Procedures and Characterization



Nam Nguyen Dang

Series: Emerging Materials and Technologies

To fully evaluate and mitigate the effects of corrosion, it is essential to understand corrosion properties and mechanisms. This book provides an overview of the main techniques of corrosion testing. It describes the fundamentals of corrosion evolution and recommends how to set up experiments that can analyze corrosion properties and mechanisms. It details problems that occur during experimental testing and how to solve them. This book will serve as a valuable reference for materials scientists, corrosion researchers, and others seeking to lessen the impact of metallic corrosion in infrastructure and other critical sectors.

CRC Press

Market: Materials Science and Engineering

August 2026: 234x156: 444pp: 127 illus, 61 halftones, 66 line drawings

Hb: 978-1-032-49697-9: **£235.00**

★ For full contents and more information, visit: www.routledge.com/9781032496979

Failure Mechanisms in Composites

How and Why Continuous Fibre Reinforced
Polymer Matrix Composites Fail



Michael R. Wisnom

Series: Composite Materials

This book discusses the mechanical response and failure of continuous fibre reinforced polymer matrix composites. It brings together the state of knowledge on failure of composites, drawing on the author's extensive experience and insights gained from researching the behaviour of these fascinating materials. It explains the principles governing them to help readers understand failures when they do occur, and how to avoid them by taking account of the key characteristics in design, underpinning greater exploitation of composites truly the materials of the future.

CRC Press

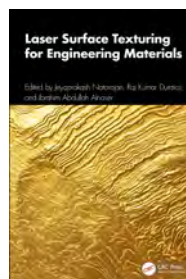
Market: Materials Engineering

July 2026: 234x156: 308pp: 263 illus, 88 halftones, 175 line drawings

Hb: 978-1-032-74640-1: **£130.00**

★ For full contents and more information, visit: www.routledge.com/9781032746401

Laser Surface Texturing for Engineering Materials



Edited by **Jeyaprakash Natarajan**, China University of Mining and Technology, China, **Raj Kumar Durairaj** and **Ibrahim Abdullah Alnaser**

Laser surface texturing (LST) uses lasers to modify or prepare a material's surface for improved performance. This book examines laser surface texturing techniques for various materials and applications. It also explores the microstructural, tribological, anti-corrosion, and mechanical behaviors of laser textured component surfaces to understand the mechanisms for improving lifecycle and reducing frictional losses. Offering a concise approach to a complex technology with minimal mathematical equations, this work covers surface texturing

techniques, their applications, analysis and future advancements for materials, mechanical, and manufacturing engineers.

CRC Press

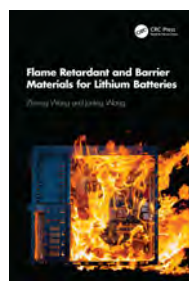
Market: Materials Engineering

July 2026: 234x156: 256pp: 87 illus, 87 halftones

Hb: 978-1-032-89278-8: **£140.00**

★ For full contents and more information, visit: www.routledge.com/9781032892788

Flame Retardant and Barrier Materials for Lithium Batteries



Zhirong Wang and Junling Wang

This comprehensive reference explains how flame-retardant materials, structural barriers, and thermal-management strategies can be integrated to prevent or contain catastrophic failure in lithium batteries. It provides a cross-disciplinary understanding of the mechanisms, materials, and engineering principles that govern thermal runaway initiation, propagation, suppression, and isolation in lithium battery systems. It is intended for researchers exploring next-generation safety materials; engineers responsible for battery system design, validation, and certification; and policymakers or safety analysts seeking a deeper understanding of the technologies shaping future standards.

CRC Press

December 2026: 234x156: 712pp: 475 illus, 475 halftones

Hb: 978-1-041-33059-2: **£140.00**

★ For full contents and more information, visit: www.routledge.com/9781041330592

Lignocellulosic Composites

Processing, Properties, and Applications



Edited by **Arun Ramnath Ramachandran**, University of Technology, Thailand and **Vinod Ayyappan**, **Sanjay Mavinkere Rangappa**, University of Technology, Thailand and **Suchart Siengchin**, University of Technology, Thailand

This book provides a systematic and comprehensive overview of advances in properties, performance, and processing of lignocellulose fibre-reinforced composites. With its application-oriented approach, this text explores the current state of the art, trends, future directions, and opportunities. The book will be of interest to researchers, scientists, and engineers working with renewable resources in the field of materials science.

CRC Press

Market: Materials Science

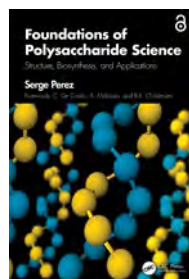
June 2026: 234x156: 392pp: 102 illus, 96 halftones, 6 line drawings

Hb: 978-1-032-74982-2: **£150.00**

★ For full contents and more information, visit: www.routledge.com/9781032749822

Foundations of Polysaccharide Science

Structure, Biosynthesis, and Applications



Serge Perez

This book examines the role of polysaccharides as essential biopolymers, tracing their origins, structural organization, and applications in materials science, healthcare, and environmental sustainability. It provides an exploration of their biosynthesis, functional modifications, and industrial uses. By connecting molecular science with practical applications, the book highlights the importance of polysaccharides in advancing biomedical technologies and sustainable materials. It presents how these molecules contribute to life and innovation and is intended for students, researchers, academics, and industry professionals interested in polysaccharide science and its applications.

CRC Press

Market: Polymer Science/Materials Science

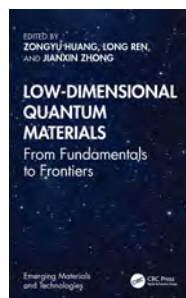
July 2026: 234x156: 336pp: 144 illus, 32 halftones, 112 line drawings

Hb: 978-1-041-33046-2: **£160.00**

★ For full contents and more information, visit: www.routledge.com/9781041330462

Low-Dimensional Quantum Materials

From Fundamentals to Frontiers



Edited by **Zongyu Huang**, **Long Ren** and **Jianxin Zhong**

Series: Emerging Materials and Technologies

This book provides a comprehensive exploration of the theoretical foundations, material systems, and emerging applications of quantum materials with reduced dimensionality. It delves into the quantum effects covering the aspects of electronic, optical, and magnetic properties that arise in these materials. By systematically presenting fundamental concepts, fabrication methods, characterization techniques, and cutting-edge research about low-dimensional quantum materials, this book serves as both an introductory guide and an advanced reference for researchers and professionals in condensed matter physics, nanotechnology, and materials science.

CRC Press

Market: Materials Science and Engineering

October 2026: 234x156: 256pp: 51 illus, 51 halftones

Hb: 978-1-041-10485-8: **£120.00**

★ For full contents and more information, visit: www.routledge.com/9781041104858

Metal Additive Manufacturing

Materials, Processes, and Surface Engineering for Advanced Applications



Edited by **Aufa Adlia Nazari, Mohamad Zaki Hassan, James Ren, Zbigniew Brytan and Afrim Gjellaj**

This book explores the evolving landscape of metal additive manufacturing, with strong emphasis on alloy development, microstructure evolution, surface engineering, and process modeling. It provides a comprehensive understanding of how different metallic alloys behave under various AM processes and offers detailed insights into the influence of processing parameters and post-processing treatments on the mechanical and functional performance of printed parts. With contributions from international experts in academia and industry, it equips readers in materials, mechanical, and related engineering fields with the knowledge needed to drive innovation and solve real-world challenges.

CRC Press

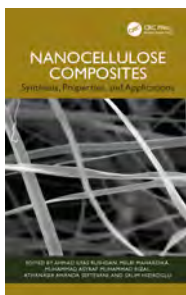
August 2026: 234x156: 510pp: 176 illus, 176 halftones

Hb: 978-1-041-22282-8: **£175.00**

★ For full contents and more information, visit: www.routledge.com/9781041222828

Nanocellulose Composites

Synthesis, Properties, and Applications



Edited by **Ahmad Ilyas Rushdan, Melbi Mahardika, Muhammad Asyraf Muhammad Rizal, Athanasia Amanda Septevani and Salim Hiziroglu**

This text is a detailed guide to the fast-growing area of nanocellulose materials including synthesis, properties, and applications. This book explains how nanocellulose is made, its structure, and how it can be used in different industries. It covers everything from the basics, such as the types and sources of nanocellulose, to more advanced topics, including sustainability assessment, recycling, and environmental impact. Offering clear direction on the latest techniques, practical applications, and environmental impacts of these materials, this book is designed for researchers, engineers, and scientists

who work in the areas of sustainable materials.

CRC Press

Market: Materials Science and Engineering

November 2026: 234x156: 552pp: 80 illus, 78 halftones, 2 line drawings

Hb: 978-1-041-07510-3: **£175.00**

★ For full contents and more information, visit: www.routledge.com/9781041075103

Next-Gen Textiles

Innovation, Technology, and Applications



Edited by **Banu Nergis and Cevza Candan**

Series: *Textile Institute Professional Publications*

This text presents an integrated, forward-looking perspective on the convergence of sustainable innovation, advanced materials science, and digital transformation within the textile industry. With a strong technical orientation, it covers the entire value chain, highlighting the pivotal role of next-generation technologies in redefining textile engineering, manufacturing, and application paradigms. Appealing to those who want deep insight into cutting-edge tools and applications this book offers a rich resource for researchers, engineers, designers, and industry professionals seeking to pioneer the next generation of textile systems intelligent, sustainable, and engineered for impact.

CRC Press

November 2026: 234x156: 416pp: 43 illus, 43 line drawings

Pb: 978-1-041-15960-5: **£115.00**

★ For full contents and more information, visit: www.routledge.com/9781041159605

Selection of Nanoparticles for Targeted Applications

A Practical Roadmap



Abdel-Hamid I. Mourad and Al Ameen Hassan

Series: *Emerging Materials and Technologies*

This text offers a structured approach to nanoparticle selection. Unlike conventional books that focus on nanoparticle synthesis and characterization, this book is designed for researchers, engineers, and scientists who have a particular application in mind and need to determine the most suitable nanoparticle to use. Organized by application rather than material type, this book allows readers to quickly navigate to their area of interest. It provides materials scientists and engineers with a clear understanding of how to approach nanoparticle selection, optimize material properties for specific applications, and make data-driven decisions that align with research or industrial needs.

CRC Press

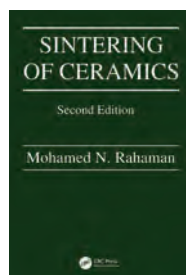
November 2026: 234x156: 432pp: 1 illus, 1 halftone

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CRC Press

Market: Materials Science and Engineering

July 2026: 254x178: 456pp: 321 illus, 321 halftones

Hb: 978-1-041-07041-2: **£110.00**

Prev. Ed Hb: 978-0-8493-7286-5

★ For full contents and more information, visit: www.routledge.com/9781041070412

Smart Wearables, Nanofibers, and Textiles



Edited by **Majid Montazer and Ali Mianehro**

Series: *Emerging Materials and Technologies*

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CRC Press

Market: Materials Science

October 2026: 234x156: 296pp: 78 illus, 52 halftones, 26 line drawings

Hb: 978-1-032-82992-0: **£140.00**

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2nd Edition

Tire Engineering

An Introduction



Brendan Rodgers, Exxon Mobil Chemical Company, Baytown, Texas, USA

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CRC Press

Market: Mechanical Engineering

August 2026: 234x156: 354pp: 169 illus, 169 line drawings

Hb: 978-1-041-14036-8: **£130.00**

Prev. Ed Hb: 978-0-367-44228-6

★ For full contents and more information, visit: www.routledge.com/9781041140368**Wear the Change**

Sustainable Practices in Clothing and Textile Industries



Edited by **Asis Patnaik**, Cape Peninsula University of Technology and **Sweta Patnaik**, Cape Peninsula University of Technology

Series: Textile Institute Professional Publications

This book examines the critical shift toward sustainability in the clothing and textile industry. This comprehensive guide probes the latest innovations, standards, and practical approaches that are transforming the entire value chain. By presenting cutting-edge research alongside actionable strategies, this book bridges the crucial gap between theoretical sustainability concepts and their real-world implementation across global textile operations. This essential reference equips students, researchers, academics, and industry professionals with

knowledge needed to lead the textile industry's vital transformation toward environmental responsibility and sustainable business practices.

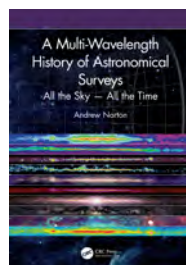
CRC Press

Market: Textiles Technology

October 2026: 234x156: 412pp: 56 illus, 56 line drawings

Pb: 978-1-041-17342-7: **£120.00**★ For full contents and more information, visit: www.routledge.com/9781041173427**A Multi-Wavelength History of Astronomical Surveys**

All the Sky — All the Time

**Andrew Norton**

The book presents an accessible history of astronomical surveys across the electromagnetic spectrum and beyond. Beginning with classical visual surveys of the sky, it moves on to the present day where surveys now look beyond visible light into other regions of the electromagnetic spectrum. The book also considers online meta-catalogues and data archives that now exist and reflects on recent developments in machine learning and citizen science. Interspersed within the chapters are a series of feature boxes that explain the exciting astrophysical concepts and phenomena revealed by surveys; enabling the book to be read by anyone with an interest in astronomy.

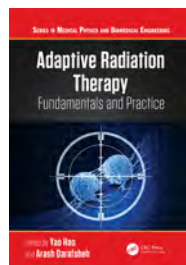
CRC Press

Market: Physics

July 2026: 254x178: 352pp: 102 illus, 80 halftones, 22 line drawings

Pb: 978-1-041-28766-7: **£52.99**★ For full contents and more information, visit: www.routledge.com/9781041287667**Adaptive Radiation Therapy**

Fundamentals and Practice

Edited by **Yao Hao** and **Arash Darafsheh***Series: Series in Medical Physics and Biomedical Engineering*

This book provides an introduction to the practice of adaptive radiotherapy (ART). Exploring recent advances and clinical considerations, readers will learn about the philosophy, fundamentals, implementation, status, and outcomes of this advanced radiotherapy technique in which treatment plans are adapted to accommodate inter- and intra-fraction anatomic changes, reducing margins and setup uncertainties. Chapters, authored by subject-area experts from across the globe, discuss physical and biological considerations, detail the cutting-edge machines used in ART, explore clinical considerations, and

provide examples of site-specific ART implementation.

CRC Press

Market: Physics

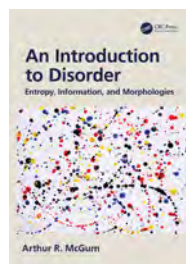
December 2026: 254x178: 376pp: 102 illus, 74 halftones, 28 line drawings

Pb: 978-1-032-81292-2: **£74.99**★ For full contents and more information, visit: www.routledge.com/9781032812922

TEXTBOOK

An Introduction to Disorder

Entropy, Information, and Morphologies

**Arthur McGurn**

This book offers an introduction to the physics of disordered systems, from their foundations in entropy and statistical mechanics to modern applications in information and quantum information theory. Designed for advanced undergraduates and first year graduate students, this book serves as a comprehensive entry point into the study of disorder. It provides a solid conceptual foundation while pointing readers to key research literature for deeper exploration, making it both an accessible textbook and a valuable reference for future study. Throughout, the mathematics is kept as simple as possible, with more advanced methods introduced only when needed.

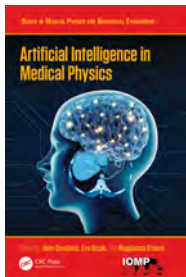
CRC Press

Market: Physics

September 2026: 254x178: 434pp: 84 illus, 1 halftone, 83 line drawings

Hb: 978-1-032-66981-6: **£96.99**★ For full contents and more information, visit: www.routledge.com/9781032669816

Artificial Intelligence in Medical Physics



Edited by **John Damilakis, Eva Bezak and Magdalena Stoeva**

Series: Series in Medical Physics and Biomedical Engineering

Artificial Intelligence (AI) is transforming the landscape of medical imaging, radiation oncology, and healthcare decision-making. This book brings together experts to examine exactly how AI is changing the field of medical physics and enhancing patient care. In addition to reviewing cutting-edge technologies, it considers critical issues of ethical frameworks, educational pathways for the workforce, data governance, algorithm transparency, and accountability. This book is a valuable guide for medical physicists and related disciplines

including radiologists, radiographers, medical engineers, hospital managers, and academic scholars working in the field of healthcare.

CRC Press

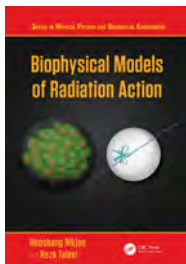
Market: Physics

July 2026: 234x156: 172pp: 18 illus, 13 halftones, 5 line drawings

Pb: 978-1-041-16756-3: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041167563

Biophysical Models of Radiation Action



Hooshang Nikjoo, Karolinska Institutet, Stockholm, Sweden and **Reza Taleei**

Series: Series in Medical Physics and Biomedical Engineering

This work integrates the physics, chemistry, and biology of radiation damage into a unified framework. It provides researchers, students, and professionals with the tools to understand not just what happens when cells are irradiated, but how and why. This is a valuable guide for final year master's and PhD students in radiation related topics in addition to postdoctoral researchers seeking to understand the fundamental mechanisms of radiation-induced cellular damage. It will also be a useful reference for radiobiologists, medical physicists, and radiation oncologists

involved in teaching and developing mathematical models in radiobiology.

CRC Press

Market: Physics

October 2026: 254x178: 530pp: 121 illus, 10 halftones, 111 line drawings

Hb: 978-1-041-07325-3: **£94.99**

★ For full contents and more information, visit: www.routledge.com/9781041073253

TEXTBOOK

Communicating Science in Public



Megan Shields Formato, Kevin C. Moore, Sarah Peterson Pittock, Emily Polk and Cassie A. Wright

Communicating Science in Public supports science communicators who seek to engage in compelling ways with audiences with varied levels of scientific expertise. The volume provides not a rule book, nor a set of templates and formulas, but rather a portable set of rhetorical strategies for working across science communication genres with the expectation that these genres will continue to change and new ones will emerge. It can be used as a science communication textbook geared toward advanced undergraduate students and graduate students with a foundation in the sciences who are learning how to communicate scientific ideas to non-specialist audiences.

CRC Press

Market: Physics

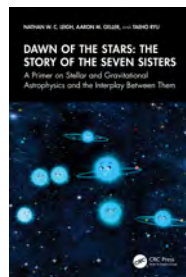
October 2026: 234x156: 242pp: 26 illus, 8 halftones, 18 line drawings

Pb: 978-1-032-84864-8: **£36.99**

★ For full contents and more information, visit: www.routledge.com/9781032848648

Dawn of the Stars: The Story of the Seven Sisters

A Primer on Stellar and Gravitational Astrophysics and the Interplay Between Them



Nathan W. C. Leigh, Aaron M. Geller and Taeho Ryu

This book offers a unique approach to astrophysics by combining scientific content with an engaging narrative. It introduces readers to the principles of stellar evolution, star formation, binary interactions, and gravitational astrophysics through the story of seven stars, the Seven Sisters. It introduces and explains astrophysical concepts in an accessible and enjoyable way without sacrificing scientific accuracy. It will be a valuable resource for senior high school students seeking an introduction to astrophysics, in addition to undergraduate and graduate students looking for a conceptual primer. It can also be enjoyed by educators and enthusiasts interested in the topic.

CRC Press

Market: Physics

July 2026: 234x156: 236pp: 47 illus, 40 halftones, 7 line drawings

Pb: 978-1-041-06830-3: **£29.99**

★ For full contents and more information, visit: www.routledge.com/9781041068303

TEXTBOOK • 2nd Edition

General Relativity and Its Applications

Black Holes, Compact Stars and Gravitational Waves



Valeria Ferrari, Leonardo Gualtieri and Paolo Pani

Containing the latest, groundbreaking discoveries in the field, this textbook outlines the basics of Einstein's theory of gravity with a focus on its most important astrophysical consequences, including stellar structures, black holes, and the physics of gravitational waves. This new edition has been updated throughout to contain the latest gravitational wave discoveries and the most recent developments in the field, as well as new material on black hole solutions, tidal deformability of compact objects, and gravitational waveform modelling.

CRC Press

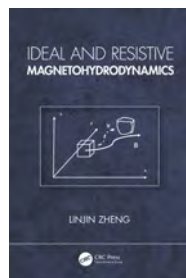
Market: Physics

July 2026: 254x178: 506pp: 96 illus, 3 halftones, 93 line drawings

Pb: 978-1-041-09874-4: **£74.99**

★ For full contents and more information, visit: www.routledge.com/9781041098744

Ideal and Resistive Magnetohydrodynamics



Linjin Zheng

This book describes state-of-the-art theories and applications of ideal and resistive magnetohydrodynamics (MHD). It fills a gap in the market between existing textbooks and the latest cutting-edge research developments, reviewing the profound and pioneering contributions of the theory's founders and the latest developments and technologies. This book will appeal to graduate students and researchers in plasma physics. Although it focuses mainly on magnetically confined fusion plasma physics, it will also be useful to students and researchers in adjoining fields, including space plasma physics.

CRC Press

Market: Physics

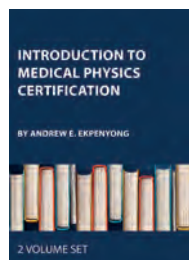
July 2026: 234x156: 316pp: 49 illus, 49 line drawings

Hb: 978-1-032-86206-4: **£94.99**

★ For full contents and more information, visit: www.routledge.com/9781032862064

TEXTBOOK • 2-Volume Set

Introduction to Medical Physics Certification



Andrew E. Ekpenyong

Series: Series in Medical Physics and Biomedical Engineering

The first volume in the set covers the ABR Medical Physics Part 1, General Exam Section, which focuses on medical physics at the level of common graduate courses. It also discusses ethics and professionalism. The second in the set covers the Clinical Exam Section of ABR Part 1, focusing on anatomy, medical terminology, and physiology at introductory levels (including three full sets of practice exams for both the General and Clinical ABR Part 1).

CRC Press

Market: Physics

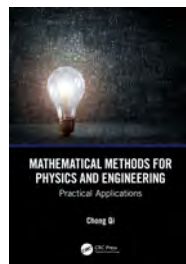
August 2026: 254x178: 968pp: 141 illus, 68 halftones, 63 line drawings

Pb: 978-1-032-88602-2: **£89.99**★ For full contents and more information, visit: www.routledge.com/9781032886022

TEXTBOOK

Mathematical Methods for Physics and Engineering

Practical Applications



Chong Qi

This book provides an accessible introduction to mathematical methods essential for physics, engineering, and modern computational analysis. Starting from foundational topics such as ordinary and partial differential equations, readers are then introduced to powerful techniques such as Fourier and Laplace transforms, series expansions, matrix and eigenvalue methods, and numerical strategies. This is an ideal textbook for advanced undergraduate and graduate students studying mathematical methods for physics and/or engineering. Readers are equipped not only a versatile toolkit of methods, but also a deeper conceptual understanding of when, where, and why each tool is appropriate.

CRC Press

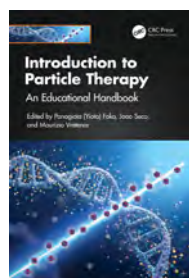
Market: Physics

July 2026: 254x178: 270pp: 31 illus, 31 line drawings

Pb: 978-1-041-13918-8: **£69.99**★ For full contents and more information, visit: www.routledge.com/9781041139188

Introduction to Particle Therapy

An Educational Handbook



Edited by Panagiota Foka, Joao Seco and Maurizio Vretenar

This book provides a clear and accessible overview of modern particle radiation therapy. Aimed at students, physicists and researchers in particle beam therapy, it explains the fundamental physics of proton and heavy-ion beams and how their distinctive depth-dose profiles enable highly targeted cancer treatment with minimal damage to healthy tissue. It also explores the latest, cutting-edge research. With clear illustrations, structured explanations and contributions from international experts, this handbook serves both as an authoritative introduction for newcomers and a practical reference for those advancing in the field.

CRC Press

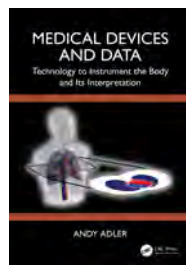
Market: Physics

November 2026: 234x156: 432pp: 167 illus, 87 halftones, 80 line drawings

Pb: 978-1-032-60646-0: **£64.99**★ For full contents and more information, visit: www.routledge.com/9781032606460

Medical Devices and Data

Technology to Instrument the Body and its Interpretation



Andy Adler

The miniaturization of electronics has driven a huge innovation in medical instruments. The core ideas of these devices originated 130 years ago, but now medical-grade systems are able to be sent home with patients. *Medical Devices and Data: Technology to Instrument the Body and its Interpretation* focuses on three questions: how do these new instruments work, how do they interpret their data, and when do they err? It also identifies the key factors driving this innovation further. This text is written for anyone who would like to understand non-invasive medical instruments in more detail and no formal background in science, engineering or medicine is required.

CRC Press

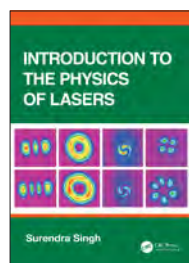
Market: Physics

July 2026: 254x178: 196pp: 103 illus, 40 halftones, 63 line drawings

Pb: 978-1-032-44695-0: **£49.99**★ For full contents and more information, visit: www.routledge.com/9781032446950

TEXTBOOK

Introduction to the Physics of Lasers



Surendra Singh

The textbook presents the physics of lasers in a logical progression starting with Maxwell's equations and light as an electromagnetic wave interacting resonantly with a material medium in the presence of optical feedback and excitation of the medium by a power source.

CRC Press

Market: Physics

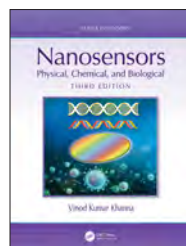
October 2026: 254x178: 458pp: 176 illus, 176 line drawings

Hb: 978-1-032-94277-3: **£96.99**★ For full contents and more information, visit: www.routledge.com/9781032942773

3rd Edition

Nanosensors

Physical, Chemical, and Biological



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

Series: Series in Sensors

The book examines how nanoscale engineering improves sensitivity, specificity, and response time.

CRC Press

Market: Physics

November 2026: 280x210: 624pp: 348 illus, 348 line drawings

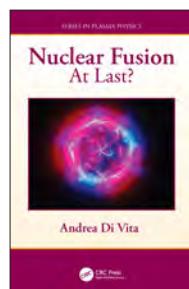
Hb: 978-1-041-31403-5: **£205.00**

Prev. Ed Hb: 978-0-367-45705-1

★ For full contents and more information, visit: www.routledge.com/9781041314035

Nuclear Fusion

At Last?



Andrea Di Vita

Series: Series in Plasma Physics

This book offers an accessible overview of the diverse approaches being pursued to make fusion energy a reality. Rather than diving into the underlying physics or speculating over future predictions, it focuses on what can be known today: the technologies, the experiments, the challenges, and the players shaping the field. With minimal mathematics and a balanced analysis of pros and cons for each approach, this book empowers readers to critically evaluate and understand the real, current trajectory of fusion research. Whether you're curious about the science, intrigued by the technology, or watching the emerging fusion economy, this is an essential guide to this evolving field.

CRC Press

Market: Physics

September 2026: 234x156: 333pp: 15 illus, 5 halftones, 10 line drawings

Pb: 978-1-041-08374-0: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781041083740

TEXTBOOK

Physics Thinking for the Life Sciences



Lars Holm Øgandal

A valuable textbook for first-year students of Biophysics, Biological Physics, Food Physics, Medical Physics, Veterinary Physics, Physics for Life Science. There are examples in the text and problems with answers after each chapter. None of the exercises requires skills in calculus. The book is algebra-based but in a few instances uses a bit of calculus and vector algebra, mainly for illustration, but knowledge of these subjects is not essential.

CRC Press

Market: Physics

September 2026: 280x210: 464pp: 236 illus, 236 line drawings

Pb: 978-1-032-56518-7: **£74.99**

★ For full contents and more information, visit: www.routledge.com/9781032565187

TEXTBOOK

Practical Statistical Mechanics

Thermodynamics and Statistical Mechanics, Volume 1



Francesco Caravelli and Diego A. R. Dalvit

This book the first of three is devoted to introducing the standard techniques of statistical mechanics; presenting a practical, operative, and attentive approach to the recurring structures that link different areas of statistical physics. Chapters include short experimental boxes that connect theoretical concepts with lab demonstrations. It also provides numerical codes that illustrate several topics throughout the text. This will serve as an ideal textbook for undergraduate and graduate courses on Statistical Mechanics and Thermodynamics, offering a broad, accessible starting point.

It can also be used as supplementary reading for courses on Many-Body Physics.

CRC Press

Market: Physics

July 2026: 254x178: 490pp: 84 illus, 42 halftones, 42 line drawings

Hb: 978-1-032-98204-5: **£96.99**

★ For full contents and more information, visit: www.routledge.com/9781032982045

TEXTBOOK • 4th Edition

Quantum Mechanics

An Introduction for Devices Physicists and Electrical Engineers



David K. Ferry, Arizona State University, Tempe, USA

This book teaches quantum mechanics for students of semiconductor device physics and electrical engineering, developed from a course the author has taught for many years. It provides the necessary background for those starting work on micro- and nanoelectronic structures and is particularly useful for those beginning work with modern semiconductors devices, lasers and qubits. Each topic includes examples which have been carefully chosen to draw upon relevant experimental research. It also includes problems with solutions to test understanding of theory. Fully updated throughout, the fourth edition contains the latest developments, experiments, and device concepts.

CRC Press

Market: Physics

August 2026: 254x178: 304pp: 100 illus, 19 halftones, 81 line drawings

Pb: 978-1-041-19466-8: **£82.99**

Prev. Ed Pb: 978-0-367-46727-2

★ For full contents and more information, visit: www.routledge.com/9781041194668

TEXTBOOK

Radiation Physics

The Interaction of Ionizing Radiation with Matter



Chaitanya Deo

Interactions of radiation in matter are of keen interest to many fields of study, including electrical and electromechanical engineering, energy production, materials characterization, cancer treatment, and diagnostic treatment. This book provides an introduction to the basic atomic and nuclear physics concepts behind radiation physics and radiation interactions with matter. This book is an invaluable guide for undergraduate students in nuclear physics and engineering interested in ionizing radiation interactions with matter. It can also serve as a reference for graduate students and researchers looking to understand basic ideas in radiation interactions.

CRC Press

Market: Physics

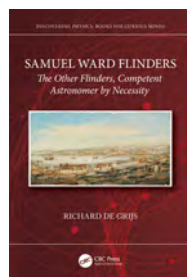
December 2026: 234x156: 384pp: 60 illus, 60 line drawings

Hb: 978-1-032-81491-9: **£96.99**

★ For full contents and more information, visit: www.routledge.com/9781032814919

Samuel Ward Flinders

The Other Flinders, Competent Astronomer by Necessity



Richard de Grijp

Series: Discovering Physics

Matthew Flinders 1801-1803 voyage aboard the H.M.S. Investigator has become a fabled narrative. Much less well-known is his youngest brother, Samuel Ward Flinders, whose skills in obtaining astronomical measurements to determine the expedition's geographic longitudes were remarkable. This book consolidates the scattered literature about Samuel into the astronomer's first modern biography. Samuel bore his own share of misfortunes, balanced by his contribution to the scientific achievements of the Investigator. This book contains a conclusive assessment as to whether his bad reputation is warranted. This book appeals to academics and general audiences.

CRC Press

Market: Physics

July 2026: 254x178: 286pp: 87 illus, 87 halftones

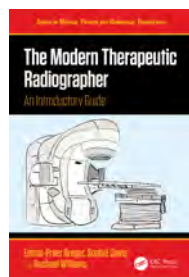
Pb: 978-1-032-83349-1: **£52.99**

★ For full contents and more information, visit: www.routledge.com/9781032833491

TEXTBOOK

The Modern Therapeutic Radiographer

An Introductory Guide

**Emma-Praer Breger, Sophie Davis and Rachael Williams***Series: Series in Medical Physics and Biomedical Engineering*

This study guidebook for 1st year undergraduate BSc therapeutic radiography/radiotherapy; oncology students introduces key academic and clinical subjects to set students up for success. Breaking down key concepts in biology and physics, chapters cover essential areas of a radiotherapy course, in an easy to follow way. It guides readers through essential knowledge demanded on placement and at university, written from an academic point of view, bringing together all relevant information in one handy guide. It provides real world communication strategies, study tips and tricks and topics such as academic support.

CRC Press

Market: Physics

July 2026: 234x156: 156pp: 39 illus, 39 halftones

Pb: 978-1-041-06244-8: **£19.99**★ For **full contents** and more information, visit: www.routledge.com/9781041062448**You Have 16 Hours**

Six Months in the Life of a Detector Physicist

**L. Poley***Series: Discovering Physics*

CERN's Large Hadron Collider - accessible to the general public: how does it work, why is it so difficult, and how do they manage to make it work anyway?

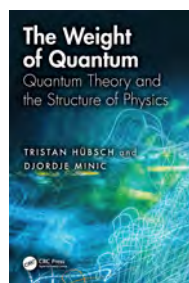
CRC Press

Market: Physics

September 2026: 234x156: 200pp: 121 illus, 121 line drawings

Pb: 978-1-041-33964-9: **£29.99**★ For **full contents** and more information, visit: www.routledge.com/9781041339649**The Weight of Quantum**

Quantum Theory and the Structure of Physics

**Tristan Hübsch and Djordje Minic**

This book provides a unified overview of modern physics - combining its foundational pillars: relativity, quantum physics and gravity - and takes the reader on a tour of fundamental physics, through structural, historical and biographical perspectives. The book presents a 'big picture' of physics, as well as its completion in terms of a new vision of the quantum theory of space, time, matter and energy. This book will be of interest to undergraduate and graduate students of physics, professional physicists and scientists from other disciplines, as well as a general audience of non-professionals interested in the topic.

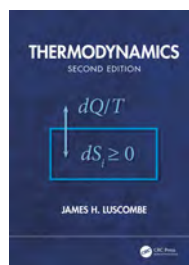
CRC Press

Market: Physics

July 2026: 234x156: 342pp: 15 illus, 15 line drawings

Pb: 978-1-041-19128-5: **£84.99**★ For **full contents** and more information, visit: www.routledge.com/9781041191285

TEXTBOOK • 2nd Edition

Thermodynamics**James H. H. Luscombe**

This book provides an accessible yet thorough introduction to thermodynamics, crafted and class-tested over many years of teaching and developed in consultation with a large number of instructors to ensure wide applicability to modules on thermodynamics. Suitable for advanced undergraduate and graduate students, this book delivers clear descriptions of how to think about the mathematics and physics involved. This new edition has been fully updated, each chapter has been rewritten with an emphasis on increased clarity for the reader. Chapters include expanded coverage of chemical thermodynamics, phase transitions, and non-equilibrium thermodynamics.

CRC Press

Market: Physics

August 2026: 254x178: 262pp: 52 illus, 52 line drawings

Hb: 978-1-041-21343-7: **£96.99**

Prev. Ed Hb: 978-1-138-54298-3

★ For **full contents** and more information, visit: www.routledge.com/9781041213437

TEXTBOOK • 2nd Edition

3ds Max Basics for Modeling Video Game Assets

Model a Complete Game Environment and Export to Unity or Other Game Engines, Volume 1



William Culbertson

3ds Max Basics for Modeling Video Game Assets, Volume 1 is a project-based introduction to 3D modeling designed for students, educators, and beginners entering the world of game development. Written by veteran instructor and industry artist Bill Culbertson, the book applies real-world workflows to teach foundational skills using Autodesk 3ds Max. While the instruction is presented in 3ds Max, the principles and workflows are transferable to other major 3D modeling platforms. Stay current with updates, resources, and downloadable project files at 3dsMaxBasics.com a dedicated hub for both students and instructors.

CRC Press

Market: Animation and Gaming

November 2026: 254x178: 384pp: 640 illus, 640 halftones

Pb: 978-1-041-27395-0: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781041273950

TEXTBOOK • 2nd Edition

3ds Max Basics for Modeling Video Game Assets

Model, Rig and Animate Characters for Export to Unity or Other Game Engines, Volume 2



William Culbertson

3ds Max Basics for Modeling Video Game Assets, Volume 2 builds on the foundational skills introduced in Volume One, guiding readers into the creation of fully realized 3D characters for video games. Written by veteran instructor and industry artist Bill Culbertson, this volume introduces character modeling, rigging, and animation using real-world production workflows in Autodesk 3ds Max. While instruction is presented using 3ds Max, the principles and workflows are transferable to other major 3D modeling and animation platforms. Stay current with updates, resources, and downloadable project files at 3dsMaxBasics.com a dedicated hub for both students and instructors.

CRC Press

Market: Animation and Gaming

November 2026: 254x178: 448pp: 797 illus, 797 halftones

Pb: 978-1-041-27397-4: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781041273974

A Practical Guide to Escape Room Design



Michiel van Eunen and Karen Sikkema

This book takes you behind the scenes of escape room creation and show how great rooms are really designed. From choosing a theme and crafting a story to building puzzles, structuring the game and playtesting with real players, this hands-on guide walks you through the entire design process. Along the way, you'll discover the principles, pitfalls and practical tricks that experienced designers use to turn ideas into immersive experiences. Whether you're building your first escape room or refining your next one, this book will help you create games that challenge, surprise and delight your players.

CRC Press

Market: Game Design

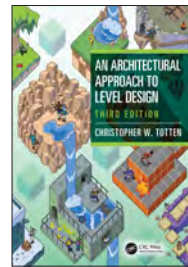
October 2026: 234x156: 216pp: 57 illus, 43 halftones, 14 line drawings

Pb: 978-1-041-10769-9: **£34.99**

★ For full contents and more information, visit: www.routledge.com/9781041107699

3rd Edition

An Architectural Approach to Level Design



Christopher W. Totten, American University, Washington, DC, USA

This book explores the principles of level design through the context and history of architecture. Fully updated for this third edition, author Christopher W. Totten presents architectural techniques and theories for you to use in your own work. The book connects architecture and level design in different ways that address the practical elements of how designers construct space and the experiential elements of how and why humans interact with that space. The new edition maintains a focus on player-focused design in handmade levels while addressing the ever-evolving technical pipeline.

CRC Press

Market: Computer Game Development

December 2026: 254x178: 650pp: 409 illus, 299 halftones, 110 line drawings

Pb: 978-1-003-86320-5: **£59.99**

Prev. Ed Pb: 978-0-8153-6136-7

★ For full contents and more information, visit: www.routledge.com/9781003863205

3rd Edition

Building Blocks of Tabletop Game Design

An Encyclopedia of Mechanisms



Geoffrey Engelstein and Isaac Shalev

This volume compiles hundreds of game mechanisms, organized by category. Building Blocks is a great starting point for new designers, a handy guidebook for the experienced, and an ideal classroom reference.

CRC Press

Market: Games & Animation

July 2026: 254x178: 602pp: 296 illus, 296 halftones

Pb: 978-1-032-98510-7: **£51.99**

Prev. Ed Pb: 978-1-032-01581-1

★ For full contents and more information, visit: www.routledge.com/9781032985107

Building Fantasy Worlds

A Hands-On Guide to Creating Fantasy Settings for Games (And More!)



Graeme Davis

This book draws on more than 40 years' experience working on almost 50 video games and more than 100 tabletop game rulebooks, sourcebooks, and adventures. It provides usable information and practical advice for worldbuilders and loremasters in games of all kinds, as well as in other media. It points out both obvious and less obvious ways of conveying intriguing crumbs of lore to players, hinting at a wider world and building curiosity that will create a ready-made audience for future titles in the same franchise.

CRC Press

Market: Animation and Gaming

December 2026: 229x152: 248pp

Pb: 978-1-041-33194-0: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781041331940

Data Driven Game Development

Transforming Player Data into a Better Player Experience



Nicklaus Goh

The book is a comprehensive tool for learning about data of various types, including analytics, research, and financial. It details a journey of building up from zero data maturity to full data maturity, covering both analytics and UX research departments, using case studies from real life scenarios. By the end of this book, readers will have a better understanding about gathering and analysing data, then presenting actionable insights that lead to a better game and a better player experience.

CRC Press

Market: Game Design

September 2026: 234x156: 152pp: 2 illus, 2 line drawings

Pb: 978-1-041-23093-9: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781041230939

5th Edition

Digital Storytelling

A Creator's Guide to Interactive Entertainment, Volume II



Carolyn Handler Miller

This book explores current developments in digital media narratives across major genres and platforms, from video games to mobile devices and transmedia storytelling, including the growing influence of AI. A chapter on iCinema and iTV looks at storytelling on massive new venues like the Sphere. The book ends with guidance on the evolving career of the Digital Storyteller, including how to enter and thrive in this fast-changing field.

CRC Press

Market: Gaming and Animation

August 2026: 229x152: 668pp: 101 illus, 101 halftones

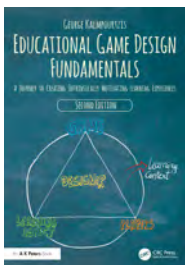
Pb: 978-1-032-82323-2: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781032823232

2nd Edition

Educational Game Design Fundamentals

A Journey to Creating Intrinsically Motivating Learning Experiences



George Kalmpourtzis

This book embarks on a journey to explore the necessary aspects to create games that are both fun and help players learn. It examines the art of educational game design through various perspectives and presents real examples that will help readers make more informed decisions when creating their own games. Everybody can become educational game designers, no matter what their technical, artistic or pedagogic backgrounds. This book refers to instructional designers, education professionals and designers of all sorts: from kindergarten to lifelong learning, from corporate training to museum curators and from tabletop or video game designers to theme park creators.

A K Peters/CRC Press

Market: Game Design

September 2026: 254x178: 350pp: 158 illus, 158 halftones

Pb: 978-1-032-89209-2: **£51.99**

Prev. Ed Pb: 978-1-138-63154-0

★ For full contents and more information, visit: www.routledge.com/9781032892092

TEXTBOOK

Facial Animation in 3D, Games, and Extended Realities



Amrinder Singh Romana

This book explores how the digital face has become a vital medium of expression, emotion, and identity in contemporary visual culture. Integrating artistic practice, anatomical understanding, and technological innovation, the book charts the evolution of facial animation from traditional rigging and motion capture to the new frontiers of real-time performance and immersive environments. It provides animators, researchers, and creative technologists with a framework for designing and interpreting digital faces. It demonstrates how facial performance continues to evolve across 3D cinema, interactive games, and extended realities, transforming how we connect within virtual worlds.

CRC Press

Market: Animation

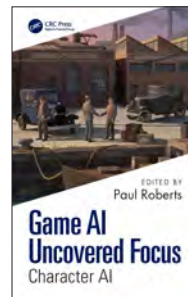
August 2026: 254x178: 198pp: 17 illus, 17 halftones

Pb: 978-1-032-81347-9: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781032813479

Game AI Uncovered Focus

Character AI



Edited by **Paul Roberts**

Paul Roberts' *Game AI Uncovered Focus: Character AI* brings together twenty chapters from the first six volumes of the Game AI Uncovered series into a handy single volume that focuses on the many different aspects of character AI in game development. Beginners to the area of game AI, along with professional developers, will find a wealth of knowledge that will not only help in the development of your own games but also spark ideas for new approaches.

CRC Press

Market: Game Development

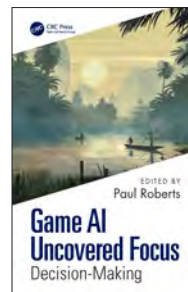
September 2026: 234x156: 200pp: 54 illus, 3 halftones, 51 line drawings

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Game AI Uncovered Focus

Decision-Making



Edited by **Paul Roberts**

Paul Roberts' *Game AI Uncovered Focus: Decision-Making* brings together twenty chapters from the first five volumes of the Game AI Uncovered series into a handy single volume that focuses on the many different aspects of decision-making in game development. Beginners to the area of game AI, along with professional developers, will find a wealth of knowledge that will not only help in the development of your own games but also spark ideas for new approaches.

CRC Press

Market: Game Development

October 2026: 234x156: 224pp: 73 illus, 7 halftones, 66 line drawings

Pb: 978-1-041-30608-5: **£51.99**

★ For full contents and more information, visit: www.routledge.com/9781041306085

How to Build Accessible Games



Joe Kinglake

This book challenges misconceptions about game accessibility practices, teaches you the innovative and economic benefits of accessibility, and provides you with tools needed to responsibly improve the accessibility of your game. Advocating for accessibility and getting buy-in within a business setting can be challenging; this book is your helpful guide to navigating these challenges! It will be of great interest to all those within the field of game design and development, including newcomers, seasoned developers, publishers, and educators.

CRC Press

Market: Game Design

December 2026: 254x178: 240pp: 48 illus, 47 halftones, 1 line drawing
9781041005674: **£51.99** • eBook: 978-1-003-61049-6

★ For **full contents** and more information, visit: www.routledge.com/9781041005674

Quest Giving

A Pocket Guide For Motivating People To Do Arbitrary Things



Nathan Savant

Constructing a quest, whether it's for a video game, a fantasy novel, or an escape room, is a complex process that can be intimidating to approach and master. Whether this is your first time, or you're a seasoned professional, *Quest Giving* breaks down the process to its component pieces to rebuild your understanding of quest design from first principles. This book will give you the tools you need to understand who a quest was built for, what skills are required to complete that quest, and how best to reconstruct that amazing adventure you read or experienced during your childhood.

CRC Press

Market: Gaming and Animation

September 2026: 198x129: 164pp: 18 illus, 8 halftones, 10 line drawings
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2nd Edition

Pattern Language for Game Design



Christopher Barney

Christopher Barney's *Pattern Language for Game Design* builds on the revolutionary work of architect Christopher Alexander to show students, teachers, and game development professionals how to derive best practices in all aspects of game design. Using a series of practical exercises, designers can observe and analyze the failures and successes of the games they know and love to find the deep patterns that underlie good design. From an in-depth look at Alexander's work to a critique of pattern theory in various fields, to a new approach that challenges your knowledge and puts it to work, this book seeks to transform how we view building interactive experiences.

CRC Press

Market: Game Design

July 2026: 246x174: 478pp: 189 illus, 187 halftones, 2 line drawings
Pb: 978-1-032-82471-0: **£55.99**
Prev. Ed Pb: 978-0-367-36772-5

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Student of the Game

Navigating a Decade in the Video Game Industry



Chase Bethea

Navigating the video game industry is like playing on expert mode without a strategy guide. In this rapidly evolving, hit-driven industry, technology advances at breakneck speed while personalities and business dynamics shift constantly. Many aspiring professionals ask how to break into game audio, but fewer discuss what happens after you're in or how to avoid getting lost along the way. This isn't just another "how to break in" guide. It's a survival manual for anyone serious about building a lasting career in game audio, complete with the aches, breaks, and breakthroughs that define professional growth in this challenging but rewarding field.

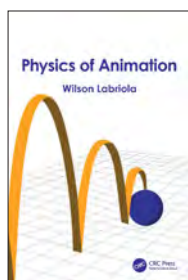
CRC Press

Market: Gaming & Animation

August 2026: 229x152: 226pp: 74 illus, 74 halftones
Pb: 978-1-032-68539-7: **£51.99**

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Physics of Animation



Wilson Alves de Labriola

Are you an animator looking to bring your creations to life with a touch of realism? Or perhaps a game developer seeking to deepen your understanding of the forces that govern movement? In *Physics of Animation*, you'll find a comprehensive guide that bridges the gap between the art of animation and the science of physics. Whether you're a novice or a seasoned professional, you'll find valuable insights to enhance the realism and quality of your animations.

CRC Press

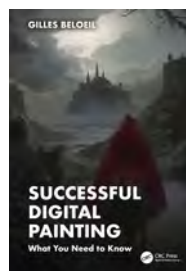
Market: Gaming and Animation

August 2026: 229x152: 132pp: 77 illus, 77 halftones
Pb: 978-1-041-07914-9: **£51.99**

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Successful Digital Painting

What You Need to Know



Gilles Beloeil

Unlock the secrets of digital painting with this comprehensive guide designed for artists at every level. Whether you're a beginner struggling to bring your visions to life or an experienced artist looking to refine your skills, this book offers invaluable insights and practical advice. Whether you're working on character design, environment art, or any other digital painting project, this book is your trusted companion. With its practical guidance and motivational insights, Digital Painting will help you transform your artistic dreams into reality.

CRC Press

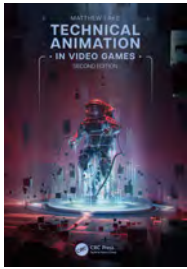
Market: Games & Animation

June 2026: 254x178: 206pp: 341 illus, 337 halftones, 4 line drawings
Pb: 978-1-032-88218-5: **£51.99**

★ For **full contents** and more information, visit: www.routledge.com/9781032882185

2nd Edition

Technical Animation in Video Games



Matthew Lake

This book provides a comprehensive overview of video game technical animation, covering the next generation pipelines that industry developers utilise to create their games. It covers the technical animation workflow from start to finish, looking at both software and hardware, as well as the industry standard processes that all technical animators need to know. This book is essential reading for early-career game technical animators as well as those studying game animation courses. It will also appeal to technical animators working in the film industry.

CRC Press

Market: Game Animation

October 2026: 246x174: 336pp: 321 illus, 313 halftones, 8 line drawings

Pb: 978-1-041-11657-8: **£51.99**

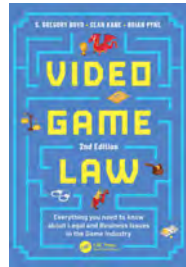
Prev. Ed Pb: 978-1-032-20327-0

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2nd Edition

Video Game Law

Everything you need to know about Legal and Business Issues in the Game Industry



S. Gregory Boyd, Brian Pyne and Sean F. Kane

Video Game Law is aimed at game developers and industry professionals who want to better understand the industry or are in need of expert legal guidance. Not every video game company has the financial resources to retain in-house counsel which this book seeks to address by discussing many of the common pitfalls, legal questions, and scenarios facing the industry. S. Gregory Boyd, Brian Pyne, and Sean F. Kane, the most prominent, sought after, and respected video game attorneys in the country, break down the laws and legal concepts that every game developer and industry professional needs to know in order to better protect their game and grow their company.

A K Peters/CRC Press

Market: Game Development

September 2026: 254x178: 370pp: 39 illus, 34 halftones, 5 line drawings

Hb: 978-1-032-91119-9: **£68.99**

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The Animator's Blueprint

The Beginner's Guide to Mastering Moho



Chris Georgenes and McCoy Buck

If you've always wanted to animate your own characters, this is where you start. *The Animator's Blueprint: The Beginner's Guide to Mastering Moho* walks you step by step through how to design, rig, and animate using Moho's professional tools and workflows. Whether you're brand new to animation or a seasoned animator exploring Moho for the first time, you'll gain real confidence as you master Moho's core tools to create your own characters and bring them to life on screen. By the end, you won't just understand Moho; you'll have the foundation and essentials to bring your stories to life through animation.

CRC Press

Market: Games & Animation

July 2026: 246x189: 256pp: 509 illus, 509 halftones

Pb: 978-1-032-97237-4: **£49.99**

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What Games Mean

Understanding Games as Art



Brandon L. Sichling

What Games Mean: Understanding Games as Art relates games to established artforms through painting movements, auteur theory, music albums, and documentary. Each chapter discusses the history of the art movement in question and then reads games through those lenses. By defamiliarizing games by thinking about them with atypical genre and form, this book helps create a common language between tabletop and video games and other kinds of art. This book is about offering strategies for game makers to think about their own work and process. Professionals and students can look at games from different perspectives and gain new approaches to how they work.

CRC Press

Market: Animation and Gaming

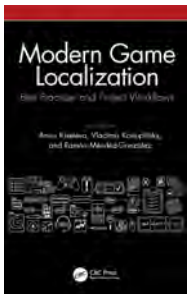
October 2026: 229x152: 192pp: 7 illus, 7 halftones

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Modern Game Localization

Best Practices and Project Workflows



Ramón Méndez-González, Anna Kiseleva and Vladimir Konoplitsky

This book is a comprehensive guide on best practice for games localization, from early stages of game design and development to post-release support. It will appeal to all game developers looking to gain an understanding of modern approaches to game localization and the processes around it.

CRC Press

Market: Game Development

December 2026: 234x156: 224pp: 72 illus, 69 halftones, 3 line drawings

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2nd Edition

Writing for Games

Theory and Practice



Hannah Nicklin

Focusing on the independent videogames sector, this second edition of *Writing for Games* offers resources for communication, collaboration, reflection, and advocacy, inviting the reader to situate their practice in a centuries-long heritage of storytelling. It is an approachable and entry-level text for anyone interested in the craft of writing for videogames. The updated new edition adds the in-depth interview section and also contains brand new material on writing for and within genre, on how to be a good collaborator, a section on the problem of using AI/LLM in your practice, and a new introduction.

CRC Press

Market: Game Narrative

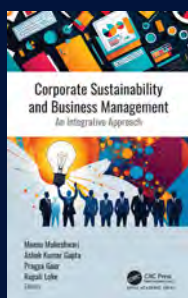
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Corporate Sustainability and Business Management

An Integrative Approach

Edited by Meenu Maheshwari, Ashok Kumar Gupta, Pragya Gaur, and Rupali Loke

Exploring the crucial convergence of corporate sustainability and modern business management, this new volume offers a comprehensive and in-depth examination of the incorporation of sustainability principles into many aspects of contemporary corporate operations. It brings together a collection of chapters from notable scholars, professionals, and educators who share their valuable viewpoints and practical knowledge to effectively traverse this dynamic field, covering the topics of corporate social responsibility (CSR), corporate governance, sustainability-driven marketing, supply chain management, finance, business models, the condition of climate change, and innovation.

June 2026: 368 Pages • 9781998511549: **£120.00**
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Data Analytics and Smart Technologies in Solid Waste Management

Advancing Sustainability

Edited by Moharana Choudhury, Sushobhan Majumdar, and Avnish Chauhan

In an era marked by unprecedented technological advancement and heightened environmental awareness, this new volume, *Data Analytics and Smart Technologies in Solid Waste Management: Advancing Sustainability*, offers a crucial and timely exploration of how modern innovations and technologies can transform waste management practices. This book bridges the gap between cutting-edge data analytics and sustainable environmental practices, presenting a comprehensive examination of how smart technologies can enhance the efficiency, effectiveness, and ecological impact of solid waste management systems. As the world grapples with mounting waste generation and its adverse effects on ecosystems and human health, this volume underscores the urgent need for innovative solutions that leverage big data, machine learning, IoT, and other technological advancements.

June 2026: 374 Pages • 9781779640826: **£136.00**
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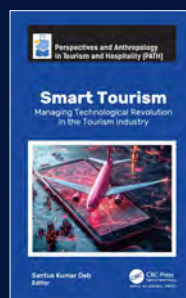


Digitalization in Tourism

Edited by Hulya Akdemir Cengiz, Seza Zerman, Aysegul Acar, and Faizan Ali

Digital technologies are reshaping tourism faster than ever before, transforming how businesses operate, how destinations engage with visitors, and how travelers experience the world. From artificial intelligence and digital marketing to sustainable tourism strategies and cultural heritage preservation, the tourism industry is entering a new era of innovation and strategic adaptation. This volume explores these developments and presents a comprehensive view of how digital transformation is redefining one of the world's most dynamic industries.

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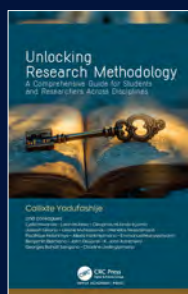
Smart Tourism

Managing Technological Revolution in the Tourism Industry

Edited by Santus Kumar Deb

An emerging concept in tourism, smart tourism is the integration of smart technology and tourism for seamless, personalized, and sustainable travel experience. This new volume, *Smart Tourism: Managing Technological Revolution in the Tourism Industry*, delves into the realm of smart tourism and explores how advances in technology is shaping the landscape of travel and hospitality.

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Unlocking Research Methodology

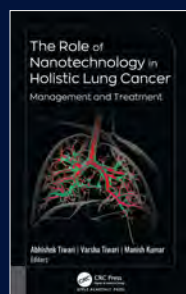
A Comprehensive Guide for Students and Researchers Across Disciplines

Callixte Yadufashije PhD

Research methodology is a well-known course designed to train students in the process of conducting research. After teaching research methodology in various universities, supervising both undergraduate and postgraduate students, and engaging in discussions with researchers from around the world, the book's authors recognized that university students and novice

researchers face challenges when it comes to writing dissertations and scientific papers.

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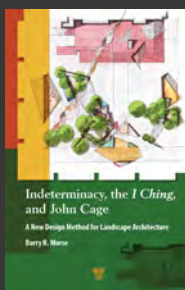
The Role of Nanotechnology in Holistic Lung Cancer Management and Treatment

Edited by Abhishek Tiwari, Varsha Tiwari, and Manish Kumar

Lung cancer accounts for 22% of global cancer deaths, presenting a critical healthcare challenge. This book offers a comprehensive exploration of cutting-edge strategies to combat this disease. From molecular mechanisms to advanced nanotechnology-based therapies—including dendrimers, polymeric micelles, nano-emulsions, inhalation systems, nano-imaging, hydrogels, and quantum dots—this book provides essential insights for modern lung cancer management.

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Indeterminacy, the I Ching, and John Cage

A New Design Method for Landscape Architecture

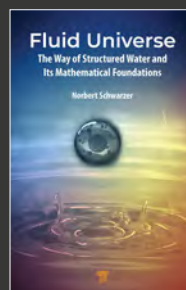
Barry R. Morse

The creative use of indeterminacy—"chance"—remains an overlooked design opportunity despite its universality in art, nature, and science. How can chance be harnessed purposefully? This book explores composer John Cage's I Ching "chance operations" method applied to landscape architecture. It examines how this indeterminate approach works in design,

what outcomes emerge, and whether it yields viable constructed landscapes. Through a hypothetical plaza redesign using Cage's techniques, the book comparatively evaluates indeterminate design against existing approaches, assessing effectiveness through original program objectives.

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Fluid Universe

The Way of Structured Water and its Mathematical Foundations

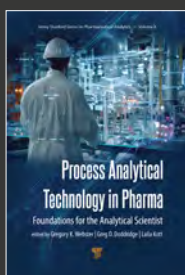
Norbert Schwarzer

This book explores the mathematical and physical foundations of intrinsic structures in non-solid phases—encompassing fluids, gases, plasmas, black holes, socioeconomic systems, markets, neurological networks, artificial intelligence, and space-times. Rather than relying on classical Navier–Stokes equations, it treats non-solid systems as generalized ensembles of attributes. Applying Hamilton principles yields Einstein field and quantum

Einstein field equations, producing a quantum gravitational approach that reveals astonishing solutions and structures capable of creating seemingly real wonder worlds.

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Process Analytical Technology in Pharma

Foundations for the Analytical Scientist

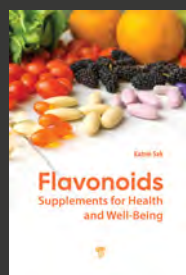
Edited by Gregory K. Webster, Greg D. Doddridge, and Laila Kott

This book provides a comprehensive overview of process analytical technology (PAT) in pharmaceutical manufacturing, covering historical developments and modern methods. It explores analytical tools including near-infrared spectroscopy, Raman spectroscopy, spectrophotometry, liquid

chromatography, and mass spectrometry for real-time monitoring and process control. Topics include sampling innovation, statistical process control, chemometrics, continuous manufacturing, and regulatory considerations. Featuring practical examples and case studies across pharmaceutical development phases, this invaluable resource serves scientists, engineers, technicians, researchers, and students seeking insights into innovative practices shaping pharmaceutical manufacturing's future.

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Flavonoids

Supplements for Health and Well-Being

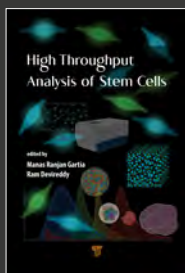
Katrin Sak

Flavonoids are abundant plant bioactive compounds with diverse therapeutic properties, increasingly popular as supplements worldwide. This popular science book examines the 15 most promising flavonoids—their physicochemical properties, discovery, dietary sources, metabolism, and therapeutic activities. Unlike other publications, it focuses exclusively on human studies and clinical trials rather than preclinical molecular research, providing relevant insights into

actual therapeutic roles. Easy-to-read and systematically structured, this book serves researchers, students, and general readers seeking evidence-based guidance on using flavonoid supplements to improve health and well-being.

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High-Throughput Imaging Methods

Cells and Tissues

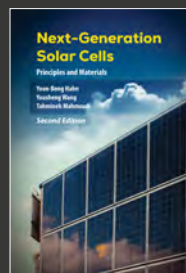
Edited by Manas Ranjan Gartia, and Ram Devireddy

This comprehensive volume examines high-throughput and label-free analysis techniques, showcasing their transformative impact on biomedical, pharmaceutical, and materials research. Bridging historical context with cutting-edge advances, it explores how high-throughput screening has evolved into a powerful platform for single-cell and single-molecule analysis.

Topics include surface plasmon resonance, hyperspectral imaging, single-molecule electronics, regenerative tissue engineering, organoid development, and bio-integrated electronics for real-time monitoring. Integrating fundamental principles with applied research, this crucial reference serves researchers, industry scientists, graduate students, and professionals engaged in diagnostics, drug discovery, and tissue engineering.

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Next-Generation Solar Cells

Principles and Materials, 2nd Edition

Yoon-Bong Hahn, Yousheng Wang, and Tahmineh Mahmoudi

Building a sustainable energy system is one of the great challenges of our time, which has prompted both academia and industry to seek alternative energy and renewable energy solutions. Recently, advanced materials and technologies for next-generation solar cells have been exploited to develop economically viable, high-performance solar cells. This book addresses the principles and materials for the development

of next-generation solar cells for a sustainable global society. It targets advanced undergraduate- and graduate-level students, researchers, and everyone with an interest in next-generation solar cells.

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