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### KEY=OUP - MILES NOVAK

#### ENGINEERING PHYSICS

Engineering Physics is designed as a textbook for the first year undergraduate engineering students of a two-semester course in engineering physics. Beginning with a discussion on ultrasonics, lasers and fibre optics, the book goes on to discuss quantum and crystal physics, and conducting, semiconducting and superconducting materials.

#### FUNDAMENTALS OF BIOMECHANICS

#### EQUILIBRIUM, MOTION, AND DEFORMATION

*Springer* This textbook integrates the classic fields of mechanics—statics, dynamics, and strength of materials—using examples from biology and medicine. The book is excellent for teaching either undergraduates in biomedical engineering programs or health care professionals studying biomechanics at the graduate level. Extensively revised from a successful third edition, *Fundamentals of Biomechanics* features a wealth of clear illustrations, numerous worked examples, and many problem sets. The book provides the quantitative perspective missing from more descriptive texts, without requiring an advanced background in mathematics. It will be welcomed for use in courses such as biomechanics and orthopedics, rehabilitation and industrial engineering, and occupational or sports medicine. This book: Introduces the fundamental concepts, principles, and methods that must be understood to begin the study of biomechanics Reinforces basic principles of biomechanics with repetitive exercises in class and homework assignments given throughout the textbook Includes over 100 new problem sets with solutions and illustrations

#### AN INTRODUCTION TO PARTICLE ACCELERATORS

*Clarendon Press* From the linear accelerators used for cancer therapy in hospitals, to the giant atom smashers at international laboratories, this book provides a simple introduction to particle accelerators.

#### MICROSTRUCTURE OF MARTENSITE

#### WHY IT FORMS AND HOW IT GIVES RISE TO THE SHAPE-MEMORY EFFECT

*Oxford University Press* The science of materials (metallurgy) tells us that every material contains microscopic features that vary at different length scales. This underlying microstructure determines the mechanical properties of the material. This book presents the particularly dramatic and compelling case of shape-memory alloys, technologically important materials, beautifully explaining the link between microstructure and macroscopic properties. A sample wire of shape memory material is included with the book.

#### ENGINEERING MECHANICS

The second edition of *Engineering Mechanics* is specially designed as a textbook for undergraduate students of engineering. It provides a detailed and holistic treatment of the basic theories and principles of both statics and dynamics. Starting from the fundamental concepts of force and equilibrium along with free body diagrams, this book comprehensively covers the various analytical aspects of rigid body mechanics, including a suitable discourse on simple lifting machines. Within each chapter, the simpler topics and problems precede those that are more complex and advanced. Each chapter starts with the key concepts and gradually builds up on the advanced topics using detailed and easy-to-understand illustrations.

#### AL-R=AZ=I

*Oxford University Press* This book introduces readers to Abu Bakr al-Razi (known in Latin as Rhazes), one of the most innovative and divisive figures of the early philosophical tradition in the Islamic world. Drawing on his extant works on ethics and a range of quotations and testimony from often hostile medieval authors, Adamson reconstructs Razi's cosmological system, which posits four principles alongside God for the making of the universe: Soul, Matter, Time, and Place. Adamson argues that this system is fundamentally based on Plato, while it accepts Aristotle's physics as a "relative" or superficial description of the universe. This notorious theory of the "five eternal" led to charges of heresy. But through an examination of his debates with contemporary Islamic theologians and representatives of Ismaili Shiism, Adamson shows that Razi's ideas about religion and prophecy may have been distorted by intellectual opponents. Razi's scientific contributions are also considered in depth. One chapter is devoted to the philosophically rewarding aspects of Razi's extensive writings on medicine. His ideas about alchemy are also discussed along with his atomist account of matter. The final chapter looks at Razi's views on ethics, and argues against a prominent interpretation of him as a hedonist inspired by Epicureanism. The book presupposes no prior knowledge of Razi or specialist knowledge of this period in the history of philosophy. It will be rewarding for anyone with an interest in the reception of Greek philosophy, especially Plato, in the history of medicine, or of medieval philosophy more generally.

#### HOMELESSNESS AND MENTAL HEALTH

*Oxford University Press* The link between homelessness and mental health disorders is undeniable and providing optimal care in the community requires understanding of the cultural context. Written and edited by experts from different cultural and geographical perspectives, this unique resource covers key topics such as COVID-19 and chronic pain, as well as case studies.

#### WORDS OF HER OWN

#### WOMEN AUTHORS IN NINETEENTH-CENTURY BENGAL

*Oxford University Press* *Words of Her Own* situates the experiences and articulations of emergent women writers in nineteenth-century Bengal through an exploration of works authored by them. Based on a spectrum of genres—such as autobiographies, novels, and travelogues—this book examines the sociocultural incentives that enabled the dawn of middle-class Hindu and Brahma women authors at that time. Murmu explores the intersections of class, caste, gender, language, and religion in these works. Reading these texts within a specific milieu, Murmu sets out to rectify the essentialist conception of women's writings being a monolithic body of works that displays a firmly gendered form and content, by offering rich insights into the complex world of subjectivities of women in colonial Bengal. In attempting to do so, this book opens up the possibility of reconfiguring mainstream history by questioning the scholarly conceptualization of patriarchy being omnipotent enough to shape the intricacies of gender relations, resulting in the flattening of self-fashioning by women writers. The book contends that there were women authors who flouted the norms of literary aesthetics and tastes set by male literati, thereby creating a literary tradition of their own in Bangla and becoming agents of history at the turn of the century.

#### ENVIRONMENTAL BIOTECHNOLOGY

*Oxford University Press, USA* *Environmental Biotechnology* discusses the development, use and regulation of biological systems for remediation of contaminated environments and for environmentally friendly processes. Written in a lucid style, the book should be useful to students of both engineering and biosciences.

#### COMPUTER SIMULATIONS OF DISLOCATIONS

*Oxford University Press on Demand* The book presents a variety of methods for computer simulations of crystal defects in the form of "numerical recipes", complete with computer codes and analysis tools. By working through numerous case studies and problems, this book provides a useful starter kit for further method development in the computational materials sciences.

#### COMPENSATION MANAGEMENT

*OUP India* *Compensation Management* is a comprehensive textbook designed to meet the requirements of MBA/PGDM students. Written in a student friendly style, it focusses on the strategic importance of compensation and its effective management. The text is developed through original research by the author, and focusses on industry application through case studies on practices followed by organizations worldwide.

#### THE OXFORD HANDBOOK OF PUBLIC MANAGEMENT

*Oxford University Press, USA* The public sector continues to play a strategic role across the world and in the last thirty years there have been major shifts in approaches to its management. This text identifies the trends in public management and the effects these have had, as well as providing a broad overview to each topic.

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## CONTINUUM MECHANICS OF SOLIDS

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*Oxford University Press, USA* Continuum Mechanics of Solids is an introductory text for graduate students in the many branches of engineering, covering the basics of kinematics, equilibrium, and material response. As an introductory book, most of the emphasis is upon the kinematically linear theories of elasticity, plasticity, and viscoelasticity, with two additional chapters devoted to topics in finite elasticity. Further chapters cover topics in fracture and fatigue and coupled field problems, such as thermoelasticity, chemoelasticity, poroelasticity, and piezoelectricity. There is ample material for a two semester course, or by selecting only topics of interest for a one-semester offering. The text includes numerous examples to aid the student. A companion text with over 180 fully worked problems is also available.

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## THE OXFORD HANDBOOK OF THE HISTORY OF MEDICINE

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*Oxford University Press on Demand* In three sections, the Oxford Handbook of the History of Medicine celebrates the richness and variety of medical history around the world. It explores medical developments and trends in writing history according to period, place, and theme.

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## DISCIPLINE-BASED EDUCATION RESEARCH

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### UNDERSTANDING AND IMPROVING LEARNING IN UNDERGRADUATE SCIENCE AND ENGINEERING

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*National Academies Press* The National Science Foundation funded a synthesis study on the status, contributions, and future direction of discipline-based education research (DBER) in physics, biological sciences, geosciences, and chemistry. DBER combines knowledge of teaching and learning with deep knowledge of discipline-specific science content. It describes the discipline-specific difficulties learners face and the specialized intellectual and instructional resources that can facilitate student understanding. Discipline-Based Education Research is based on a 30-month study built on two workshops held in 2008 to explore evidence on promising practices in undergraduate science, technology, engineering, and mathematics (STEM) education. This book asks questions that are essential to advancing DBER and broadening its impact on undergraduate science teaching and learning. The book provides empirical research on undergraduate teaching and learning in the sciences, explores the extent to which this research currently influences undergraduate instruction, and identifies the intellectual and material resources required to further develop DBER. Discipline-Based Education Research provides guidance for future DBER research. In addition, the findings and recommendations of this report may invite, if not assist, post-secondary institutions to increase interest and research activity in DBER and improve its quality and usefulness across all natural science disciplines, as well as guide instruction and assessment across natural science courses to improve student learning. The book brings greater focus to issues of student attrition in the natural sciences that are related to the quality of instruction. Discipline-Based Education Research will be of interest to educators, policy makers, researchers, scholars, decision makers in universities, government agencies, curriculum developers, research sponsors, and education advocacy groups.

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## OXFORD TEXTBOOK OF OBSTETRICS AND GYNAECOLOGY

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*Oxford University Press* The Oxford Textbook of Obstetrics and Gynaecology is an up-to-date, objective and readable text that covers the full speciality of Obstetrics and Gynaecology. This comprehensive and rigorously referenced textbook will be a vital resource in print and online for all practising clinicians. Edited by a team of four leading figures in the field, whose clinical and scientific backgrounds collectively cover the whole spectrum of Obstetrics and Gynaecology with particular expertise in fetomaternal medicine and obstetrics, gynaecological oncology, urogynaecology, and reproductive medicine, the textbook helps inform and promote evidence-based practice and improve clinical outcomes worldwide across all facets of the discipline. The editors are supported by contributors who are internationally renowned specialists and ensure high quality and global perspective to the work. Larger sections on the Basics in Obstetrics and Gynaecology, Fetomaternal medicine, Management of Labour, Gynaecological problems, Gynaecological oncology are complimented by specialist sections on areas such as Neonatal Care & Neonatal Problems, Reproductive medicine, and Urogynaecology and Pelvic Floor Disorders to name a few. The evidence-based presentation of current diagnostic and therapeutic methods is complemented in the text by numerous treatment algorithms, giving the reader the knowledge and tools needed for effective clinical practice. The Oxford Textbook of Obstetrics and Gynaecology is essential reading for specialist obstetricians and gynaecologists, subspecialists, and O&G trainees across the world.

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## HOW TO ACHIEVE INCLUSIVE GROWTH

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*Oxford University Press* This is an open access title available under the terms of a CC BY-NC-ND 4.0 International licence. It is free to read at Oxford Scholarship Online and offered as a free PDF download from OUP and selected open access locations. Rising inequality and widespread poverty, social unrest and polarization, gender and ethnic disparities, declining social mobility, economic fragility, unbalanced growth due to technology and globalization, and existential danger from climate change are urgent global concerns of our day. These issues are intertwined. They therefore require a holistic framework to examine their interplay and bring the various strands together. Leading academic economists have partnered with experts from several international institutions to explain the sources and scale of these challenges. They gather a wide array of empirical evidence and country experiences to lay out practical policy solutions and to devise a comprehensive and unified plan of action for combatting these economic and social disparities. This authoritative book is accessible to policy makers, students, and the general public interested in how to craft a brighter future by building a sustainable, green, and inclusive society in the years ahead.

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## THE OXFORD SOLID STATE BASICS

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*Oxford University Press* This is a first undergraduate textbook in Solid State Physics or Condensed Matter Physics. While most textbooks on the subject are extremely dry, this book is written to be much more exciting, inspiring, and entertaining.

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## THE OXFORD HANDBOOK OF METHODS FOR PUBLIC SCHOLARSHIP

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*Oxford University Press, USA* The Oxford Handbook of Methods for Public Scholarship presents the first comprehensive overview of research methods and practices for engaging in public scholarship. Public scholarship, which has been on the rise over the past 25 years, produces knowledge that is available outside of the academy, is useful to relevant stakeholders, and addresses publicly identified needs. By involving stakeholders in the entire process, and making the findings accessible, public scholars contribute to a crucial democratization of research. The Oxford Handbook of Methods for Public Scholarship features a wealth of highly respected interdisciplinary contributors, as well as emerging scholars, and chapters include robust examples from real world research in varied fields and cultures. The volume features ample discussion of working with non-academic stakeholders, coverage of traditional and emergent methods including those that draw from the arts, the internet, social media, and digital technologies, and coverage of key issues such as writing, publicity, and funding.

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## ADVANCES IN MEDICAL PHYSICS AND HEALTHCARE ENGINEERING

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### PROCEEDINGS OF AMPHE 2020

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*Springer Nature* This book presents research advances in the theory of medical physics and its application in various sectors of biomedical engineering. It gathers best selected research papers presented at International Conference on Advances in Medical Physics and Healthcare Engineering (AMPHE 2020), organized by the Department of Physics (in collaboration with the School of Engineering and Technology) Adamas University, Kolkata, India. The theme of the book is interdisciplinary in nature; it interests students, researchers and faculty members from biomedical engineering, biotechnology, medical physics, life sciences, material science and also from electrical, electronics and mechanical engineering backgrounds nurturing applications in biomedical domain.

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## SHELL-LIKE STRUCTURES

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### ADVANCED THEORIES AND APPLICATIONS

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*Springer* The book presents mathematical and mechanical aspects of the theory of plates and shells, applications in civil, aero-space and mechanical engineering, as well in other areas. The focus relates to the following problems: • comprehensive review of the most popular theories of plates and shells, • relations between three-dimensional theories and two-dimensional ones, • presentation of recently developed new refined plates and shells theories (for example, the micropolar theory or gradient-type theories), • modeling of coupled effects in shells and plates related to electromagnetic and temperature fields, phase transitions, diffusion, etc., • applications in modeling of non-classical objects like, for example, nanostructures, • presentation of actual numerical tools based on the finite element approach.

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## OXFORD TEXTBOOK OF MEDICINE

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### CHALLENGING CONCEPTS IN ONCOLOGY

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#### CASES WITH EXPERT COMMENTARY

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*Challenging Concepts* Providing the inside track on how the experts approach and deal with real-world clinical scenarios, Challenging Concepts In Oncology selects twenty five cases to highlight the important issues relating to common cancers and common cancer-related complications, which do not have simple answers. Each case discusses the presentation of the cancer, its treatment, and an acute oncological emergency. Written using the UK Oncology curricula for Medical Oncology and Clinical Oncology to support preparation for the MRCP3 examination in Medical Oncology and FRCR, Challenging Concepts in Oncology highlights critical information through the use of boxed features: 'Learning points', 'Clinical tips', and 'Evidence base'. Each chapter has been reviewed by a national or international expert in the field and they have provided an 'Expert commentary', giving a unique insight into how today's opinion leaders confront and deal with the challenges that all oncologists can potentially face on a daily basis. Aimed primarily at specialty trainees and registrars in oncology, this text is also a valuable resource for all health care professionals involved in looking after patients with cancer in primary, secondary, and tertiary care. It is also a

fantastic resource for undergraduates who want to find out more about oncology.

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## METAFICTION AND THE POSTWAR NOVEL

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### FOES, GHOSTS, AND FACES IN THE WATER

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*Oxford University Press* This book examines 'metafiction' - writing that is about writing - after the Second World War.

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## WHITES AND REDS

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### A HISTORY OF WINE IN THE LANDS OF TSAR AND COMMISSAR

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*Oxford University Press* Whites and Reds: A History of Wine in the Lands of Tsar and Commissar tells the story of Russia's encounter with viticulture and winemaking. Rooted in the early-seventeenth century, embraced by Peter the Great, and then magnified many times over by the annexation of the indigenous wine economies and cultures of Georgia, Crimea, and Moldova in the late-eighteenth and early-nineteenth centuries, viticulture and winemaking became an important indicator of Russia's place at the European table. While the Russian Revolution in 1917 left many of the empire's vineyards and wineries in ruins, it did not alter the political and cultural meanings attached to wine. Stalin himself embraced champagne as part of the good life of socialism, and the Soviet Union became a winemaking superpower in its own right, trailing only Spain, Italy, and France in the volume of its production. Whites and Reds illuminates the ideas, controversies, political alliances, technologies, business practices, international networks, and, of course, the growers, vintners, connoisseurs, and consumers who shaped the history of wine in the Russian Empire and the Soviet Union over more than two centuries. Because wine was domesticated by virtue of imperialism, its history reveals many of the instabilities and peculiarities of the Russian and Soviet empires. Over two centuries, the production and consumption patterns of peripheral territories near the Black Sea and in the Caucasus became a hallmark of Russian and Soviet civilizational identity and cultural refinement. Wine in Russia was always more than something to drink.

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## INFORMATION, PHYSICS, AND COMPUTATION

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*Oxford University Press* A very active field of research is emerging at the frontier of statistical physics, theoretical computer science/discrete mathematics, and coding/information theory. This book sets up a common language and pool of concepts, accessible to students and researchers from each of these fields.

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## FILING RELIGION

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### STATE, HINDUISM, AND COURTS OF LAW

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The present volume explores how court actions significantly shape Hinduism in Indian and Nepalese societies, perhaps even more so than the ideology of any political party. How do courts, within the framework of secularism, deal in practice with Hinduism? The approach developed is resolutely historical and anthropological and relies on in-depth ethnography and archival research.

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## PIETY AND PRIVILEGE

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### CATHOLIC SECONDARY SCHOOLING IN IRELAND AND THE THEOCRATIC STATE, 1922-1967

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*Oxford University Press* For centuries, the Catholic Church around the world insisted it had a right to provide and organize its own schools. It decreed also that while nation states could lay down standards for secular curricula, pedagogy, and accommodation, Catholic parents should send their children to Catholic schools and be able to do so without suffering undue financial disadvantage. Thus, from the Pope down, the Church expressed deep opposition to increasing state intervention in schooling, especially during the nineteenth century. By the end of the 1920s however, it was satisfied with the school system in only a small number of countries. Ireland was one of those. There, the majority of primary and secondary schools were Catholic schools. The State left their management in the hands of clerics while simultaneously accepting financial responsibility for maintenance and teachers' salaries. During the period 1922-1967, the Church, unhindered by the State, promoted within the schools' practices aimed at 'the salvation of souls' and at the reproduction of a loyal middle class and clerics. The State supported that arrangement with the Church also acting on its behalf in aiming to produce a literate and numerate citizenry, in pursuing nation building, and in ensuring the preparation of an adequate number of secondary school graduates to address the needs of the public service and the professions. All of that took place at a financial cost much lower than the provision of a totally State-funded system of schooling would have entailed. Piety and Privilege seeks to understand the dynamic between Church and State through the lens of the twentieth century Irish education system.

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## CORPORATE GOVERNANCE IN INDIA

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### CHANGE AND CONTINUITY

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*Oxford University Press, USA* What are the key objectives of corporate governance? How effective has it been in India? Why has the need for good governance intensified over the last decade? Have the recent developments in the field opened up a wide range of governance issues? This book addresses such debates and provides an insight into advancing and improving corporate governance practices in India. It explores the evolution of corporate governance and discusses crucial aspects such as compensation for executives, gender diversity on Indian boards, ethical business, independent directors, audit committees, corporate governance in state-owned enterprises, and corporate social responsibility. The volume also critically examines important provisions of the Companies Act, 2013 along with the revised clause 49. With essays from distinguished academics, practitioners, and research scholars, it brings out contemporary perspectives on the provisions, challenges, and opportunities in the field within a comparative global context.

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## MULTIFUNCTIONAL OXIDE HETEROSTRUCTURES

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*OUP Oxford* This book is devoted to the rapidly developing field of oxide thin-films and heterostructures. Oxide materials combined with atomic-scale precision in a heterostructure exhibit an abundance of macroscopic physical properties involving the strong coupling between the electronic, spin, and structural degrees of freedom, and the interplay between magnetism, ferroelectricity, and conductivity. Recent advances in thin-film deposition and characterization techniques made possible the experimental realization of such oxide heterostructures, promising novel functionalities and device concepts. The book consists of chapters on some of the key innovations in the field over recent years, including strongly correlated oxide heterostructures, magnetoelectric coupling and multiferroic materials, thermoelectric phenomena, and two-dimensional electron gases at oxide interfaces. The book covers the core principles, describes experimental approaches to fabricate and characterize oxide heterostructures, demonstrates new functional properties of these materials, and provides an overview of novel applications.

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## HANDBOOK OF BRICS AND EMERGING ECONOMIES

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*Oxford University Press* Ever since Jim O'Neill at Goldman Sachs coined the term BRICS in 2001 there have been many different assessments of these major emerging economies, with some even proclaiming that the promise of the BRICS (comprising Brazil, Russia, India, China, and South Africa) is over. However, the so called 'arranged marriage' still seems to be working well, with the club having become a formal international forum, with summit declarations, ministerial meetings, and numerous BRICS-wide fora. Is this euphoria misplaced? Is there a BRICS model of economic and human development? Are inequalities increasing and is this the denouncement of the economic successes? Are geo-political tensions rising between these nations? During the post COVID-19 situation, the importance of bilateral and multilateral co-operation mechanisms and institutions is becoming clear. This book focuses on one such emerging co-operation mechanism of BRICS but also more widely on those five countries and other similar economies. As a global depression looms large, global economic recovery depends on the performance of not only its largest economies but also many other important and significant economies within the so called G20 group. Even prior to the COVID-19 outbreak multilateral institutions have been under considerable strain, as with the relationship between the United States of America and China, and risks to global economic recovery appear very real. This book brings together multi-disciplinary perspectives from over sixty scholars and it presents a comprehensive and deep dive into the BRICS and emerging economies and into an understanding the political, economic, and social contexts that can help in designing approaches for recovery and regaining the last momentum in the journey towards the Sustainable Development Goals.

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## THE DEFINING MOMENTS IN BENGAL

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### 1920-1947

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*Oxford University Press* This work explores some of the constitutive elements in the life and mind of Bengal in the twentieth century. The author addresses some frequently unasked questions about the history of modern Bengal. In what way was twentieth-century Bengal different from 'Renaissance' Bengal of the late-nineteenth century? How was a regional identity consciousness redefined? Did the lineaments of politics in Bengal differ from the pattern in the rest of India? What social experiences drove the Muslim community's identity perception? How did Bengal cope with such crises as the impact of World War II, the famine of 1943 and the communal clashes that climaxed with the Calcutta riots of 1946? The author has chosen a significant period in the history of the region and draws on a wealth of sources archival and published documents, mainstream dailies, a host of rare Bengali magazines, memoirs and the literature of the time to tell his story. Looking closely at the momentous changes taking place in the region's economy, politics and socio-cultural milieu in the historically transformative years 1920-47, this book highlights myriad issues that cast a shadow on the decades that followed, arguably till our times.

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## DOMORUCHORIT

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## STUNNING TALES FROM BENGALI ADDA

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*Oxford University Press, USA* Troilokyonath Mukhopadhyay (1847-1919) is one of the foremost writers of fiction of nineteenth-century Bengal. He is a master of the genre of fantasy writing. *Domoruchorit*, posthumously published in 1923, is a book which contains seven tales that are suffused with hilarious narration, sparkling wit, and cutting-edge satire. The tales capture the adda spirit of nineteenth-century Bengal and caters a distinct old world charm. Each of the stories comes up with a vignette of nineteenth-century Bengal with its politics of swadeshi movement and the social reality comprising casteism, child marriage, premature widowhood, feudal tyranny, and colonial oppression. And in each of these stories Troilokyonath Mukhopadhyay blends facts and fiction so magically that some critics have preferred to call him the first magic realist author of Bengal, even if he wrote at a time when magic realism was not even remotely known anywhere in the world. The stories purvey the flavour of a long-lost community life and homosocial male bonding which was once a distinctive part of Bengali culture.

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## SOFT CONDENSED MATTER

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*Oxford University Press* This text offers an introduction to the properties and behaviour of soft matter. It begins with a treatment of the underlying principles, then discusses how the properties of certain substances and systems are treated within this framework.

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## ENGINEERING ANIMALS

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### HOW LIFE WORKS

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*Harvard University Press* The alarm calls of birds make them difficult for predators to locate, while the howl of wolves and the croak of bullfrogs are designed to carry across long distances. From an engineer's perspective, how do such specialized adaptations among living things really work? And how does physics constrain evolution, channeling it in particular directions? Writing with wit and a richly informed sense of wonder, Denny and McFadzean offer an expert look at animals as works of engineering, each exquisitely adapted to a specific manner of survival, whether that means spinning webs or flying across continents or hunting in the dark or writing books. This particular book, containing more than a hundred illustrations, conveys clearly, for engineers and nonengineers alike, the physical principles underlying animal structure and behavior. Pigeons, for instance when understood as marvels of engineering—are flying remote sensors: they have wideband acoustical receivers, hi-res optics, magnetic sensing, and celestial navigation. Albatrosses expend little energy while traveling across vast southern oceans, by exploiting a technique known to glider pilots as dynamic soaring. Among insects, one species of fly can locate the source of a sound precisely, even though the fly itself is much smaller than the wavelength of the sound it hears. And that big-brained, upright Great Ape? Evolution has equipped us to figure out an important fact about the natural world: that there is more to life than engineering, but no life at all without it.

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## ARCHIVING THE BRITISH RAJ

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### HISTORY OF THE ARCHIVAL POLICY OF THE GOVERNMENT OF INDIA, WITH SELECTED DOCUMENTS, 1858-1947

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*Oxford University Press* The archives are generally sites where historians conduct research into our past. Seldom are they objects of research. Sabyasachi Bhattacharya traces the path that led to the creation of a central archive in India, from the setting up of the Imperial Record Department, the precursor of the National Archives of India, and the Indian Historical Records Commission, to the framing of archival policies and the change in those policies over the years. In the last two decades of colonial rule in India, there were anticipations of freedom in many areas of the public sphere. These were felt in the domain of archiving as well, chiefly in the form of reversal of earlier policies. From this perspective, Bhattacharya explores the relation between knowledge and power and discusses how the World Wars and the decline of Britain, among other factors, effected a transition from a Eurocentric and disparaging approach to India towards a more liberal and less ethnocentric one.

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## SPORTS STUDIES IN INDIA

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### EXPANDING THE FIELD

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*Oxford University Press, USA* This volume aims to forge interest in the field of sports studies and offers a platform for a wide range of studies on sports, employing a variety of approaches, perspectives, and methodologies.

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## INDIAN PHILOSOPHY IN ENGLISH

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### FROM RENAISSANCE TO INDEPENDENCE

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*Oxford University Press* This book publishes, for the first time in decades, and in many cases, for the first time in a readily accessible edition, English language philosophical literature written in India during the period of British rule. Bhushan's and Garfield's own essays on the work of this period contextualize the philosophical essays collected and connect them to broader intellectual, artistic and political movements in India. This volume yields a new understanding of cosmopolitan consciousness in a colonial context, of the intellectual agency of colonial academic communities, and of the roots of cross-cultural philosophy as it is practiced today. It transforms the canon of global philosophy, presenting for the first time a usable collection and a systematic study of Anglophone Indian philosophy. Many historians of Indian philosophy see a radical disjuncture between traditional Indian philosophy and contemporary Indian academic philosophy that has abandoned its roots amid globalization. This volume provides a corrective to this common view. The literature collected and studied in this volume is at the same time Indian and global, demonstrating that the colonial Indian philosophical communities were important participants in global dialogues, and revealing the roots of contemporary Indian philosophical thought. The scholars whose work is published here will be unfamiliar to many contemporary philosophers. But the reader will discover that their work is creative, exciting, and original, and introduces distinctive voices into global conversations. These were the teachers who trained the best Indian scholars of the post-independence period. They engaged creatively both with the classical Indian tradition and with the philosophy of the West, forging a new Indian philosophical idiom to which contemporary Indian and global philosophy are indebted.

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## MATHEMATICAL TECHNIQUES

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### AN INTRODUCTION FOR THE ENGINEERING, PHYSICAL, AND MATHEMATICAL SCIENCES

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*Oxford University Press, USA* All students of engineering, science, and mathematics take courses on mathematical techniques or 'methods', and large numbers of these students are insecure in their mathematical grounding. This book offers a course in mathematical methods for students in the first stages of a science or engineering degree. Its particular intention is to cover the range of topics typically required, while providing for students whose mathematical background is minimal. The topics covered are: \* Analytic geometry, vector algebra, vector fields (div and curl), differentiation, and integration. \* Complex numbers, matrix operations, and linear systems of equations. \* Differential equations and first-order linear systems, functions of more than one variable, double integrals, and line integrals. \* Laplace transforms and Fourier series and Fourier transforms. \* Probability and statistics. The earlier part of this list consists largely of what is thought pre-university material. However, many science students have not studied mathematics to this level, and among those that have the content is frequently only patchily understood. *Mathematical Techniques* begins at an elementary level but proceeds to give more advanced material with a minimum of manipulative complication. Most of the concepts can be explained using quite simple examples, and to aid understanding a large number of fully worked examples is included. As far as is possible chapter topics are dealt with in a self-contained way so that a student only needing to master certain techniques can omit others without trouble. The widely illustrated text also includes simple numerical processes which lead to examples and projects for computation, and a large number of exercises (with answers) is included to reinforce understanding.

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## THE MARTIANS OF SCIENCE

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### FIVE PHYSICISTS WHO CHANGED THE TWENTIETH CENTURY

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*Oxford University Press* If science has the equivalent of a Bloomsbury group, it is the five men born at the turn of the twentieth century in Budapest: Theodore von Kármán, Leo Szilard, Eugene Wigner, John von Neumann, and Edward Teller. From Hungary to Germany to the United States, they remained friends and continued to work together and influence each other throughout their lives. As a result, their work was integral to some of the most important scientific and political developments of the twentieth century. István Hargittai tells the story of this remarkable group: Wigner won a Nobel Prize in theoretical physics; Szilard was the first to see that a chain reaction based on neutrons was possible, initiated the Manhattan Project, but left physics to try to restrict nuclear arms; von Neumann could solve difficult problems in his head and developed the modern computer for more complex problems; von Kármán became the first director of NASA's Jet Propulsion Laboratory, providing the scientific basis for the U.S. Air Force; and Teller was the father of the hydrogen bomb, whose name is now synonymous with the controversial "Star Wars" initiative of the 1980s. Each was fiercely opinionated, politically active, and fought against all forms of totalitarianism. Hargittai, as a young Hungarian physical chemist, was able to get to know some of these great men in their later years, and the depth of information and human interest in *The Martians of Science* is the result of his personal relationships with the subjects, their families, and their contemporaries.