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Today, about 98 percent of scientists affirm that climate change is human made, and about 2 percent still question it. Despite that overwhelming majority, though, about half the population of rich countries, like ours, choose to believe the 2 percent. And, paradoxically, this large camp of deniers grows even larger as more and more alarming proof of climate change has cropped up over the last decades. This disconnect has both climate scientists and activists scratching their heads, growing anxious, and responding, usually, by repeating more facts to "win" the argument. But, the more climate facts pile up, the greater the resistance to them grows, and the harder it becomes to enact measures to reduce greenhouse gas emissions and prepare communities for the inevitable change ahead. Is humanity up to the task? It is a catch-22 that starts, says psychologist and climate expert Per Espen Stoknes, from an inadequate understanding of the way most humans think, act, and live in the world around them. With dozens of examples, he shows how to retell the story of climate change and apply communication strategies more fit for the task.

This book is a pioneering regional work and provides a balanced approach of theory and practice in disaster risk reduction (DRR) in Pakistan. The book analytically discusses the status of DRR and draws examples and lessons from national and community-level programs and projects and events in the country. The book covers different types of disasters facing Pakistan, including geo-physical and hydro-meteorological hazards. This work incorporates and draws some of the key lessons learned from the pre-disaster and disaster phases to the post-disaster phase, providing an effective framework in the form of those lessons. The rich content is based on a selection of available documents, a consultative workshop with academicians from different universities undertaking DRR higher education programs, and the editors' own knowledge and experience in the field. Special emphasis is given to analyzing field experiences from academic perspectives, and pinpointing key issues and the policy relevance of DRR. Disaster Risk Reduction Approaches in Pakistan is organized into three sections with a total of 20 chapters. Section one provides the outline and basics of DRR strategies applied at the national level with supporting examples from a global review. Section two specifically highlights the wide ranges of hazards experienced in Pakistan and presents examples, policy options, institutional set-ups, risk reduction strategies, and key lessons learned. The third section of the book is given to approaches and issues of DRR practices with examples of disaster responses.

The ways in which research data is used and handled continue to capture public attention and are the focus of increasing interest. Electronic publishing is intrinsic to digital data management, and relevant to the fields of data mining, digital publishing and social networks, with their implications for scholarly communication, information services, e-learning, e-business and the cultural heritage sector. x000D This book presents the proceedings of the 18th International Conference on Electronic Publishing (ELPUB), held in Thessaloniki, Greece, in June 2014. The conference brings together researchers and practitioners to discuss the many aspects of electronic publishing, and the theme this year is 'Let's put data to use: digital scholarship for the next generation'. As well as examining the role of cultural heritage and service organisations in the creation, accessibility, duration and long-term preservation of data, it provides a discussion forum for the appraisal, citation and licensing of research data and the new developments in reviewing, publishing and editorial technology. x000D The book is divided into sections covering the following topics: open access and open data; knowing the users better; researchers and their needs; specialized content for researchers; publishing and access; and practical aspects of electronic publishing. x000D Providing an overview of all that is current in the electronic publishing world, this book will be of interest to practitioners, researchers and students in information science, as well as users of electronic publishing.

This book examines how the armed forces of the United States and Australia have responded to the threat posed by climate change to national security. Drawing on established securitisation frameworks ('Copenhagen' and 'Paris' Schools), the author uses a combination of quantitative and qualitative techniques to systematically examine more than 3,500 speeches, policies and doctrinal articles since 2003. Importantly, the author undertakes an examination of the intersection between the political and the military spheres, probing the question of how ideology has influenced the military's uptake on the issue. In this context, the author identifies the difficulty of an ostensibly apolitical institution responding to what has become both a hyper-political issue and an unprecedented security threat. A close examination of the key political actors - their intent, outlook and political mandate for broader climate action - is therefore crucial to understanding the policy freedom and constraints within which military leaders operate. The book consists of eight chapters divided into four parts, focusing on: perspectives and methodological insights; empirical case studies; case study comparison; and concluding observations. • Offers a rare and systematic examination of military climate policy by a military officer from Australia • Identifies a divergence of Australian military climate policy from that of the US military during the Obama Administration • Develops a unique method that quantifies climate security, enabling a graphical representation for quick and ready reference ideally suited to policy-makers

Bionanocomposites for Packaging Applications

Human Development Report 2014

The Industry Implications of DVB-S2X, High Throughput Satellites, Ultra HD, M2M, and IP

The Securitization of Climate Change: Australian and United States' Military Responses (2003 - 2013)

Creating China's Climate Change Policy

15th Edition

Nuclear Security Summits

The Bulk Collection of Signals Intelligence: Technical Options study is a result of an activity called for in Presidential Policy Directive 28 (PPD-28), issued by President Obama in January 2014, to evaluate U.S. signals intelligence practices. The directive instructed the Office of the Director of National Intelligence (ODNI) to produce a report within one year "assessing the feasibility of creating software that would allow the intelligence community more easily to conduct targeted information acquisition rather than bulk collection." ODNI asked the National Research Council (NRC) -- the operating arm of the National Academy of Sciences and National Academy of Engineering -- to conduct a study, which began in June 2014, to assist in preparing a response to the President. Over the ensuing months, a committee of experts appointed by the Research Council produced the report.

The Victorian Palace of ScienceScientific Knowledge and the Building of the Houses of ParliamentCambridge University Press

The building of railways has had a profound but largely ignored physical impact on Britain's coasts. This book explores the coming of railways to the edge of Britain, the ruthlessness of the companies involved and the transformation of our coasts through

In the past few years, interest in plug-in electric vehicles (PEVs) has grown. Advances in battery and other technologies, new federal standards for carbon-dioxide emissions and fuel economy, state zero-emission-vehicle requirements, and the current administration's goal of putting millions of alternative-fuel vehicles on the road have all highlighted PEVs as a transportation alternative. Consumers are also beginning to recognize the advantages of PEVs over conventional vehicles, such as lower operating costs, smoother operation, and better acceleration; the ability to fuel up at home; and zero tailpipe emissions when the vehicle operates solely on its battery. There are, however, barriers to PEV deployment, including the vehicle cost, the short all-electric driving range, the long battery charging time, uncertainties about battery life, the few choices of vehicle models, and the need for a charging infrastructure to support PEVs. What should industry do to improve the performance of PEVs and make them more attractive to consumers? At the request of Congress, Overcoming Barriers to Deployment of Plug-in Electric Vehicles identifies barriers to the introduction of electric vehicles and recommends ways to mitigate these barriers. This report examines the characteristics and capabilities of electric vehicle technologies, such as cost, performance, range, safety, and durability, and assesses how these factors might create barriers to widespread deployment. Overcoming Barriers to Deployment of Plug-in Electric Vehicles provides an overview of the current status of PEVs and makes recommendations to spur the industry and increase the attractiveness of this promising technology for consumers. Through consideration of consumer behaviors, tax incentives, business models, incentive programs, and infrastructure needs, this book studies the state of the industry and makes recommendations to further its development and acceptance.

Geoscience for the Public Good and Global Development

A Walking Life

Structural Optimization and Experimental Investigation of the Organic Rankine Cycle for Solar Thermal Power Generation

Technical Options

Proceedings of the 18th International Conference on Electronic Publishing

Decarbonization in the European Union

CNPS Proceedings 2017

For readers of On Trails, this is an incisive, utterly engaging exploration of walking: how it is fundamental to our being human, how we've designed it out of our lives, and how it is essential that we reembrace it. "I'm going for a walk." How often has this phrase been uttered by someone with a heart full of anger or sorrow? Or as an invitation, a precursor to a declaration of love? Our species and its predecessors have been bipedal walkers for at least six million years; by now, we take this seemingly arbitrary motion for granted. Yet how many of us still really walk in our everyday lives? Driven by a combination of a car-centric culture and an insatiable thirst for productivity and efficiency, we're spending more time sedentary and alone than we ever have before. If bipedal walking is truly what makes our species human, as paleoanthropologists claim, what does it mean that we are designing walking right out of our lives? Antonia Malchik asks essential questions at the center of humanity's evolution and social structures: Who gets to walk, and where? How did we lose the right to walk, and what implications does that have for the strength of our communities, the future of democracy, and the pervasive loneliness of individual lives? The loss of walking as an individual and a community act has the potential to destroy our deepest spiritual connections, our democratic society, our neighborhoods, and our freedom. But we can change the course of our mobility. And we need to. Delving into a wealth of science, history, and anecdote -- from our deepest origins as hominins to our first steps as babies, to universal design and social infrastructure, A Walking Life shows exactly how walking is essential, how deeply reliant our brains and bodies are on this simple pedestrian act -- and how we can reclaim it.

This book describes the four Nuclear Security Summits held over 2010-2016 at the initiative of U.S. President Barack Obama. The author draws upon his unique vantage point as a participant in the Summits, exclusive interviews with practitioners, and access to primary documents, to write an engaging history of the NSS and of nuclear security in general. The story of the NSS is also in part the story of multilateral nuclear forums, which have sprung up regularly since the dawn of the nuclear age to address perceived nuclear dangers. The success of these Summits in addressing the threat of nuclear terrorism holds important lessons for the design and work of nuclear forums today and into the future. The author presents a new approach to assessing 'international learning' that has important implications for the design of multilateral forums and updates the Cold War areas of nuclear knowledge being 'learnt' in the light of the NSS experience and other recent developments. This work will be of interest to scholars and practitioners in security studies, nuclear history, and International Relations.

Rapid and important developments in the area of energy - water nexus over the last two to three years have been significant. This new edition of Water and Energy: Threats and Opportunities is timely and continues to highlight the inextricable link between water and energy, providing an up-to-date overview of the subject with helpful detailed summaries of the technical literature. Water and Energy has been up-dated throughout and major changes are: new chapters on global warming and fossil fuels, including shale gas and fracking; the consequences of the Deepwater Horizon accident in the Mexican Gulf and the Niger Delta oil spills; new developments in hydropower; and continued competition between food, water and energy. Water and Energy Threats and Opportunities, 2e creates an awareness of the important couplings between water and energy. It shows how energy is used in all the various water cycle operations and demonstrates how water is used and misused in all kinds of energy production and generation.Population increase, climate change and an increasing competition between food and fuel production create enormous pressures on both water and energy availability. Since there is no replacement for water, water security looks more crucial than energy security. This is true not only in developing countries but also in the most advanced countries. For example, the western parts of the USA suffer from water scarcity that provides a real security threat. Part One of the book describes the water-energy nexus, the conflicts and competitions and the couplings between water security, energy security, and food security. Part Two captures how climate change, population increase and the growing food demand will have major impact on water availability in many countries in the world. Part Three describes water for energy and how energy production and conversion depend on water availability. As a consequence, all planning has to take both water and energy into consideration. The environmental (including water) consequences of oil and coal exploration and refining are huge, in North America as well as in the rest of the world. Furthermore, oil leak accidents have hit America, Africa, Europe as well as Asia. The consequences of hydropower are discussed and the competition between hydropower generation, flood control and water storage is illustrated. The importance of water for cooling thermal power plants is described, as this was so tragically demonstrated at the Fukushima nuclear plants in 2011. Climate change will further emphasize the strong coupling between water availability and the operation of power plants. Part Four analyses energy for water - how water production and treatment depend on energy. The book shows that a lot can be done to improve equipment, develop processes and apply advanced monitoring and control to save energy for water operations. Significant amounts of energy can be saved by better pumping, the reduction of leakages, controlled aeration in biological wastewater treatment, more efficient biogas production, and by improved desalination processes. There are 3 PowerPoint presentations available for Water and Energy - threats and opportunities, 2e. About the author Gustaf Olsson, Professor Em. in Industrial Automation, Lund University, Sweden Since 2006, Gustaf has been Professor Emeritus at Lund University, Sweden. Gustaf has devoted his research to control and automation in water systems, electrical power systems and process industries. From 2006 to 2008 he was part time professor in electrical power systems at Chalmers University of Technology, Sweden. He is guest professor at the Technical University of Malaysia (UTM) and at the Tsinghua University in Beijing, China and he is an honorary faculty member of the Exeter University in UK. Between 2005 and 2010 he was the editor-in-chief of the journals Water Science and Technology and Water Science and Technology/Water Supply, (IWA Publishing). From 2007 to 2010, he was a member of the IWA Board of Directors and in 2010 he received the IWA Publication Award. In 2012 he was the awardee of an Honorary Doctor degree at UTM and an Honorary Membership of IWA. Gustaf has guided 23 PhDs and a few hundred MSc students through their exams and has received the Lund University pedagogical award for distinguished achievements in the education". The Lund University engineering students elected him as the teacher of the year He has spent extended periods as a guest professor and visiting researcher at universities and companies in the USA, Australia and Japan and has been invited as a guest lecturer in 19 countries outside Sweden. He has authored nine books published in English, Russian, German and Chinese and and contributed with chapters in another 19 books as well as more than 170 scientific publications.

NEW YORK TIMES EDITORS' CHOICE A virtuosic debut from a gifted violinist searching for a new mode of artistic becoming How does time shape consciousness and consciousness, time? Do we live in time, or does time live in us? And how does music, with its patterns of rhythm and harmony, inform our experience of time? Uncommon Measure explores these questions from the perspective of a young Korean American who dedicated herself to perfecting her art until performance anxiety forced her to give up the dream of becoming a concert solo violinist. Anchoring her story in illuminating research in neuroscience and quantum physics, Hodges traces her own passage through difficult family dynamics, prejudice, and enormous personal expectations to come to terms with the meaning of a life reimagined—one still shaped by classical music but moving toward the freedom of improvisation.

Summer/Fall 2014

A Critical Study of the Films

Research Handbook on Climate Governance

The Routledge Atlas of South Asian Affairs

Research and Applications in Global Supercomputing

Understanding Creation Care Solutions to Environmental Problems

Under an Ionized Sky

It is difficult to believe that our planet has been weaponized before our very eyes, but that is exactly what has happened. First, we were seduced by the convenience of a wireless world; then, atmospheric weather experimentation in the guise of carbons "climate change" converted the air we breathe into an antenna. Now, the geo-engineering we've been subjected to for two decades is being normalized as the "Star Wars" Space Fence rises around and within us. Is this the Space Age we were promised?

Communication Technology Update and Fundamentals has set the standard as the single best resource for students and professionals looking to brush up on how communication technologies have developed, grown, and converged, as well as what's in store for the future. The 15th edition is completely updated, reflecting the changes that have swept the communication industries. The first five chapters offer the communication technology fundamentals, including the ecosystem, the history, and structure--then delves into each of about two dozen technologies, including mass media, computers, consumer electronics, and networking technologies. Each chapter is written by experts who provide snapshots of the state of each individual field. Together, these updates provide a broad overview of these industries, as well as the role communication technologies play in our everyday lives. In addition to substantial updates to each chapter, the 15th edition includes: First-ever chapters on Big Data and the Internet of Things Updated user data in every chapter Projections of what each technology will become by 2031 Suggestions on how to get a job working with the technologies discussed The companion website, www.tfi.com/ctu, offers updated information on the technologies covered in this text, as well as links to other resources

This book presents a unified overview of eco-friendly bionanocomposites on the basis of characterization, design, manufacture, and application. It also explores replacing conventional materials with bionanocomposites with a focus on their use in packaging applications. In addition, the book broadens readers' insights by providing illustrations and tables summarizing the latest research on the packaging applications of different bionanocomposites. By offering a detailed account of this field of research and describing real-world applications, it enables researchers, scientists, and professionals in industry to develop a more informed understanding of the need for bionanocomposites in the development of green, biodegradable, and sustainable packaging applications.

According to the United Nations, 9.6 billion people will inhabit our planet by 2050. Population growth and movement will have an enormous impact on global dynamics in the twenty-first century, in both the developing world as well as in advanced industrialized societies. In light of this global demographic reality, this issue of the Georgetown Journal of International Affairs focuses on the topic of "Destabilizing Demographics," exploring the opportunities and challenges presented by dynamic population patterns and structures. Demographic shifts affect multiple facets of international affairs, impacting economies, modifying politics, and reshaping the fabric of our societies. These changes could have catastrophic international consequences if ignored or evaded. However, as this issue's Forum demonstrates, the future holds promise for those who choose to reorganize on the cusp of significant population transformation. Adaptation as a form of mitigation must be informed by diverse solutions and multi-sectoral cooperation. Consider, for example, the intersection of family planning and climate change, or the connection between gender gaps and crime. Through pragmatic policymaking and international collaboration, seismic demographic change may not necessitate disaster. We round out this issue with articles regarding decidedly twenty-first century concerns: communication, integration, and globalization. Moha Ennaji describes the challenges of Berber language incorporation in Morocco and its significance to democratic reform. Dan Saxon examines the role of human judgment in semi-autonomous weapons use, questioning the ethics of unmanned machines. Andrés Monroy-Hernández and Luis Daniel Palacios analyze the utility, efficacy, and implications of citizen journalism within Mexico's ongoing drug war. And Lawrence Gostin and Alexandra Phelan explore how, in an increasingly interconnected world, the international community can collectively prevent and control the spread of infectious diseases. The Georgetown Journal of International Affairs is the official publication of the Edmund A. Walsh School of Foreign Service at Georgetown University. Each issue of the journal provides readers with a diverse array of timely, peer-reviewed content penned by top policymakers, business leaders, and academic luminaries. The Journal takes a holistic approach to international affairs and features a 'Forum' that offers focused analysis on a specific key issue with each new edition of the publication, as well as nine regular sections: Books, Business & Economics, Conflict & Security, Culture & Society, Law & Ethics, A Look Back, Politics & Diplomacy, Science & Technology, and View from the Ground.

Spain, Italy and Argentina

Science Policies and Twentieth-Century Dictatorships

Quantum Legacies

Threats and Opportunities

Toward a New Psychology of Climate Action

Reclaiming Our Health and Our Freedom One Step at a Time

OECD's 2014 Economic Survey of the United States examines recent economic developments, policies and prospects. Special chapters cover improving well-being and making the best of new energy resources.

Urban planning is deeply implicated in both the planetary crisis of climate change and the personal crises of unhealthy lifestyles. Worldwide health issues such as obesity, mental illness, growing health inequalities and climate vulnerability cannot be solved solely by medicines but also by tackling the social, economic and environmental determinants. In a time when unhealthy and unsustainable conditions are being built into the physical fabric of cities, a new awareness and strategy is urgently needed to putting health and well-being at the heart of planning. The Routledge Handbook of Planning for Health and Well-being authoritatively and comprehensively integrates health into planning, strengthening the hands of those who argue and plan for healthy environments. With contributions from international leaders in the field, the Handbook of Planning for Health and Well-being provides context, philosophy, research, processes, and tools of experienced practitioners

through case studies from four continents.

A series of engaging essays that explore iconic moments of discovery and debate in physicists’ ongoing quest to understand the quantum world. The ideas at the root of quantum theory remain stubbornly, famously bizarre: a solid world reduced to puffs of probability; particles that tunnel through walls; cats suspended in zombielike states, neither alive nor dead; and twinned particles that share entangled fates. For more than a century, physicists have grappled with these conceptual uncertainties while enmeshed in the larger uncertainties of the social and political worlds around them, a time pocked by the rise of fascism, cataclysmic world wars, and a new nuclear age. In Quantum Legacies, David Kaiser introduces readers to iconic episodes in physicists’ still-unfolding quest to understand space, time, and matter at their most fundamental. In a series of vibrant essays, Kaiser takes us inside moments of discovery and debate among the great minds of the era—Albert Einstein, Erwin Schrödinger, Stephen Hawking, and many more who have indelibly shaped our understanding of nature—as they have tried to make sense of a messy world. Ranging across space and time, the episodes span the heady 1920s, the dark days of the 1930s, the turbulence of the Cold War, and the peculiar political realities that followed. In those eras as in our own, researchers’ ambition has often been to transcend the vagaries of here and now, to contribute lasting insights into how the world works that might reach beyond a given researcher’s limited view. In Quantum Legacies, Kaiser unveils the difficult and unsteady work required to forge some shared understanding between individuals and across generations, and in doing so, he illuminates the deep ties between scientific exploration and the human condition.

Rapidly generating and processing large amounts of data, supercomputers are currently at the leading edge of computing technologies. Supercomputers are employed in many different fields, establishing them as an integral part of the computational sciences. Research and Applications in Global Supercomputing investigates current and emerging research in the field, as well as the application of this technology to a variety of areas. Highlighting a broad range of concepts, this publication is a comprehensive reference source for professionals, researchers, students, and practitioners interested in the various topics pertaining to supercomputing and how this technology can be applied to solve problems in a multitude of disciplines.

OECD Economic Surveys: United States 2014

Internal Competition and External Diplomacy

What We Think About When We Try Not To Think About Global Warming

International MultiConference of Engineers and Computer Scientists 2014

How a New Understanding of the Universe Can Help Answer Age-Old Questions of Existence

Water and Energy

Disaster Risk Reduction Approaches in Pakistan

This book is intended for anyone who is interested in a real physical image and order of the physical world surrounding us. In this book Einstein’s destruction of physics is documented. The physical reality of gravity, inertial forces, mass, time, double-slit experiment is debunked. It shows that Quarks and Higgs bosons do not exist and that all elementary particles, all rigid matter and all force fields in the Universe are created from compression of ether. It shows that Einstein, after 1916 became a more enthusiastic advocate of the proven existence of the ether than supporters of the ether before 1905. The aim of this book is to return physics from its way of metaphysics in the 20th century on the way of the physical reality in the 21st century. This second edition of this book was augmented by twenty pages compared to the first edition. After this augmentation it appears that the argumentation about the unacceptability of the ill-founded physical theories of the 20th century represents a compact corpus.

Making a fresh contribution to the political history of science, this book explores the connections between the science policies of three countries that each experienced considerable political upheaval in the twentieth century: Spain, Italy and Argentina. By focussing on these three countries, the contributors are able to present case studies that highlight the characteristics and specificities of the democratic and dictatorial political processes involved in the production of science and technology. The focus on dictatorship presents the opportunity to expand our knowledge -beyond the more extensive literature about science in Nazi Germany and Stalinist USSR -about the level of political involvement of scientists in non-democratic contexts and to what extent they act as politicians in different contexts. Key topics covered include the new forms of organization and institutionalization of science in the twentieth century; the involvement of scientific communities in the governance of science and its institutions; the role of ideology in scientific development; the scientific practices adopted by scientific communities in different contexts; and the characteristics of science and technology produced in these contexts.

The John Chappell Natural Philosophy Society (CNPS) provides an open forum for the study, debate, and presentation of serious scientific ideas, theories, philosophies, and experiments that are not commonly accepted in mainstream science. The CNPS uses the term "Natural Philosophy" in its broader sense which includes physics, cosmology, mathematics, and the philosophy of science. Our goal is to return to the basics where things went wrong and start anew.

The Palace of Westminster, home to Britain’s Houses of Parliament, is one of the most studied buildings in the world. What is less well known is that while Parliament was primarily a political building, when built between 1834 and 1860, it was also a place of scientific activity. The construction of Britain’s legislature presents an extraordinary story in which politicians and officials laboured to make their new Parliament the most radical, modern building of its time by using the very latest scientific knowledge. Experimentalists employed the House of Commons as a chemistry laboratory, geologists argued over the Palace’s stone, natural philosophers hung meat around the building to measure air purity, and mathematicians schemed to make Parliament the first public space where every room would have electrically-controlled time. Through such dramatic projects, Edward J. Gillin redefines our understanding of the Palace of Westminster and explores the politically troublesome character of Victorian science.

Internal Policies and External Strategies

Toward a Sustainable Future

Einstein’s Destruction of Physics

Optimizing the U.S. Ground-Based Optical and Infrared Astronomy System

Shaping a sustainable and healthy future

Innovations in Satellite Communications and Satellite Technology

Epistemic Virtues in the Sciences and the Humanities

This book explores how physicists, astronomers, chemists, and historians in the late nineteenth and early twentieth centuries employed ‘epistemic virtues’ such as accuracy, objectivity, and intellectual courage. In doing so, it takes the first step in providing an integrated history of the sciences and humanities. It assists in addressing such questions as: What kind of perspective would enable us to compare organic chemists in their labs with paleographers in the Vatican Archives, or anthropologists on a field trip with mathematicians poring over their formulas? While the concept of epistemic virtues has previously been discussed, primarily in the contexts of the history and philosophy of science, this volume is the first to enlist the concept in bridging the gap between the histories of the sciences and the humanities. Chapters research whether epistemic virtues can serve as a tool to transcend the institutional disciplinary boundaries and thus help to attain a ‘post-disciplinary’ historiography of modern knowledge. Readers will gain a contextualization of epistemic virtues in time and space as the book shows that scholars themselves often spoke in terms of virtue and vice about their tasks and accomplishments. This collection of essays opens up new perspectives on questions, discourses, and practices shared across the disciplines, even at a time when the neo-Kantian distinction between sciences and humanities enjoyed its greatest authority. Scholars including historians of science and of the humanities, intellectual historians, virtue epistemologists, and philosophers of science will all find this book of particular interest and value.

Surveys key advances in commercial satellite communications and what might be the implications and/or opportunities for end-users and service providers in utilizing the latest fast-evolving innovations in this field This book explores the evolving technical options and opportunities of satellite networks. Designed to be a self-contained reference, the book includes background technical material in an introductory chapter that will serve as a primer to satellite communications. The text discusses advances in modulation techniques, such as DBV-S2 extensions (DVS-S2X); spotbeam-based geosynchronous and medium earth orbit High Throughput Satellite (HTS) technologies and Internet applications; enhanced mobility services with aeronautical and maritime applications; Machine to Machine (M2M) satellite applications; emerging ultra HD technologies; and electric propulsion. The author surveys the latest innovations and service strategies and the resulting implications, which involves: Discussing advances in modulation techniques and HTS spotbeam technologies Surveying emerging high speed aeronautical mobility services and maritime and other terrestrial mobility services Assessing M2M (machine-to-machine) applications, emerging Ultra HD video technologies and new space technology Satellite communication is an integral part of the larger fields of commercial, television/media, government, and military communications, because of its multicast/broadcast capabilities, mobility, reliability, and global reach. High Throughput Satellites) are expected to revolutionize the field during this decade, providing very high speed, yet cost-effective, Internet access and connectivity anywhere in the world, in rural areas, in the air, and at sea. M2M connectivity, enabled by satellite communications, connects trucks on transcontinental trips, aircraft in real-time-telemetry aggregation, and mercantile ships. A comprehensive analysis of the new advances in satellite communications, Innovations in Satellite Communications Technology is a reference for telecommunications and satellite providers and end-users, technology investors, logistic professionals, and more.

This book is about what I remember about many members of my family and about the knowledge I obtained about them through various interviews and written sources, e.g., obituaries, newspapers, and articles I found on the Internet. The book follows a certain order. I describe what I remember about my immediate family members. I start off with my father then my mother and then my brother—the only sibling I ever had. I then discuss my life with my ex-wife and her family and then the only child we ever had. I go on to another chapter, or maybe the third chapter, and talk about my paternal grandfather’s family and as much of what I could remember about my maternal grandmother’s family. I know and discovered more about the former than the latter. I enhanced my discussion throughout the book with as many pictures as I could gather. The book has pictures anywhere from one to about eighty years old. This, I thought, would make the book more interesting and lively. The book is replete with explanatory footnotes for those of certain generations or knowledge who may not understand or know of certain places, celebrities, cultural practices, and events. The entire book was prepared to relate to all who might read it in terms of family connections, their interest(s) in travel, history, sports, genealogy, and biography. I then talk about my maternal grandmother’s family. It is relatively short because I did not know too many of them that well. The book covers mostly what I know and found out about my maternal grandfather’s family. That is because it is the largest segment of my entire family. My father had no siblings, whereas my mother had about ten or eleven siblings, and all of them had children and grandchildren. I discovered a great deal more accomplishments in life on my mother’s side as opposed to my father’s side of the family. I do not think the book is boring or particularly too long or too short. The book is a description of the life of the people whom I discuss and how I might have fitted into those lives.

Hypothetical Spacecraft and Interstellar Travel collects information about the latest and greatest hypothetical spacecraft.

Bulk Collection of Signals Intelligence

Communication Technology Update and Fundamentals

Christopher Nolan

Scientific Knowledge and the Building of the Houses of Parliament

Hypothetical Spacecraft and Interstellar Travel

The Victorian Palace of Science

A History

People are used to seeing “fake physics” in science fiction - concepts like faster-than-light travel, antigravity and time travel to name a few. The fiction label ought to be a giveaway, but some SF writers - especially those with a background in professional science - are so adept at “technobabble” that it can be difficult to work out what is fake and what is real. To confuse matters further, Isaac Asimov’s 1948 piece about the fictitious time-travelling substance thiotimoline was written, not as a short story, but in the form of a spoof research paper. The boundaries between fact and fiction can also be blurred by physicists themselves - sometimes unintentionally, sometimes with tongue-in-cheek, sometimes to satirize perceived weaknesses in research practices. Examples range from hoaxes aimed at exposing poor editorial standards in academic publications, through “thought experiments” that sound like the plot of a sci-fi movie to April Fools’ jokes. Even the latter may carry a serious message, whether about the sociology of science or poking fun at legitimate but far-out scientific hypotheses. This entertaining book is a joyous romp exploring the whole spectrum of fake physics - from science to fiction and back again.

The authors examine how far internal policies in the European Union move towards the objective of reducing greenhouse gas emissions in the EU by 80-95 per cent by 2050, and how or whether the EU’s 2050 objective to ‘decarbonise’ could affect the EU’s relations with a number of external energy partners.

Most people in most countries have been steadily better in human development. Advances in technology and incomes hold ever-greater for longer, healthier, more secure lives.

Christopher Nolan is one of the defining directors of the 21st century. Few of his contemporaries can compete in terms of critical and commercial success, let alone cultural impact. His films have a rare ability to transcend audience expectations, appealing to both casual moviegoers and dyed-in-the-wool cineastes. Nolan’s work ranges from gritty crime thrillers (Memento, Inomnia) to spectacular blockbusters (the Dark Knight trilogy, Inception). They have taken audiences from the depths of space (Interstellar) to the harsh realities of war (Dunkirk). And they have pushed the boundaries of the possible in modern movie making. This critical history covers his complete filmography, tracing his career from film student to indie darling to Oscar-nominated auteur.

My Knowledge and My Memories of My Family

Let’s Put Data to Use: Digital Scholarship for the Next Generation

Transactions on Engineering Technologies

Dispatches from an Uncertain World

Sustaining Human Progress: Reducing Vulnerabilities and Building Resilience

Overcoming Barriers to Deployment of Plug-in Electric Vehicles

Fake Physics: Spoofs, Hoaxes and Fictitious Science

The 2009 United Nations climate conference in Copenhagen is often represented as a watershed in global climate politics, when the diplomatic efforts to negotiate a successor agreement to the Kyoto Protocol failed and was replaced by a fragmented and post-Copenhagen landscape the top-down universal approach to climate governance has gradually given way to a more complex, hybrid and dispersed political landscape involving multiple actors, arenas and sites. The Handbook contains contributions from many authors and explores the latest trends and theoretical developments of the climate governance scholarship.

Environmental issues appear deceptively simple: science tells us what the problems are and how to solve them, and, for Christians, the Bible motivates us to care for creation. And yet, both in society in general as well as in the Christian church in particular, regarding environmental issues. In this book, climate scientist Johnny Wei-Bing Lin argues that determining the content of environmental stewardship, far from being a straightforward exercise, is a difficult and complex endeavor. He sets forth a general taxonomies, science epistemology, science-policy studies, politics, and economics, that can help us better understand what excellent creation care consists of and how to bridge the differences people have regarding environmental issues.

This volume contains revised and extended research articles written by prominent researchers who participated in the international conference on Advances in Engineering Technologies, which was held in Hong Kong, 12-14 March, 2014. Topics covered include mathematics, scientific computing, control theory, artificial intelligence, electrical engineering, communications systems, and industrial applications. The book offers the state of art of tremendous advances in engineering technologies and physical science and reference work for researchers and graduate students working with/on engineering technologies and physical science and applications.

Drawing on first hand interview data with experts and government officials, Olivia Gippner develops a new analytical framework to explore the vested interests and policy debates surrounding Chinese climate policy-making.

The Routledge Handbook of Planning for Health and Well-Being

A Journey Through Music, Performance, and the Science of Time

Uncommon Measure

The Nature of Environmental Stewardship

Georgetown Journal of International Affairs

On the Edge

From Chemtrails to Space Fence Lockdown

New astronomical facilities, such as the under-construction Large Synoptic Survey Telescope and planned 30-meter-class telescopes, and new instrumentation on existing optical and infrared (OIR) telescopes, hold the promise of groundbreaking research and discovery. How can we extract the best science from these and other astronomical facilities in an era of potentially flat federal budgets for both the facilities and the research grants? Optimizing the U.S. Ground-Based Optical and Infrared Astronomy System provides guidance for these new programs that align with the scientific priorities and the conclusions and recommendations of two National Research Council (NRC) decadal surveys, New Worlds, New Horizons for Astronomy and Astrophysics and Vision and Voyages for Planetary Sciences in the Decade 2013-2022, as well as other NRC reports. This report describes a vision for a U.S. OIR System that includes a telescope time exchange designed to enhance science return by broadening access to capabilities for a diverse community, an ongoing planning process to identify and construct next generation capabilities to realize decadal science priorities, and near-term critical coordination, planning, and instrumentation needed to usher in the era of LSST and giant telescopes.

South Asia has developed from a group of newly independent post-Colonial states of at most secondary importance to the wider world to its current position as a region of central strategic importance to both global economic development and world peace and stability. This Atlas highlights the global significance of South Asia in relation to economic, geopolitical and strategic interests. It provides a coherent descriptive and analytical account of the key elements of the complex societies that make up the region and its component countries. Illustrated with more than 100 original maps and offering concise entries on key issues, the book is structured thematically in these sections: Global Context Geographical Environments Historical Evolution of South Asia Key Issues in modern South Asia Economy and Security Designed for use in teaching undergraduate and graduate classes and seminars in geography, history, economics, anthropology, international relations, political science and the environment as well as regional courses on the South Asia, this book is also a comprehensive reference source for libraries and decision makers focusing on South Asia.

Compared to the conventional Rankine cycle using water, the ORC can create efficient expansion at low power, avoid superheater and offer higher thermal efficiency in low temperature application. Small-scale ORCs from several kWe to a few hundred kWe offer great potential for meeting the residential demand on heat and power, and are of growing interest in scientific and technical fields. However, one critical problem is the decreased device efficiency and cost-effectiveness that arises when the ORC is scaled down. In this thesis, the ORC is combined with low concentration-ratio solar collectors. The background, research trend, merits and importance of the solar ORC are described. To reduce the thermodynamic irreversibility and the cost of the system, three innovative solutions are proposed: solar ORC without heat transfer fluid (HTF), which employs two-stage collectors and heat storage units; hybrid solar power generation based on ORC and amorphous silicon cells; osmosis-driven solar ORC. Heat collection, storage and power conversion are optimized. The design, construction and test of a prototype are conducted, demonstrating the feasibility of the ORC for small-scale cogeneration. Special attention is paid to the variable operation and parameter design with respect to the condensation temperature.

This open access book chronicles the rise of a new scientific paradigm offering novel insights into the age-old enigmas of existence. Over 300 years ago, the human mind discovered the machine code of reality: mathematics. By utilizing abstract thought systems, humans began to decode the workings of the cosmos. From this understanding, the current scientific paradigm emerged, ultimately discovering the gift of technology. Today, however, our island of knowledge is surrounded by ever longer shores of ignorance. Science appears to have hit a dead end when confronted with the nature of reality and consciousness. In this fascinating and accessible volume, James Glatfelder explores a radical paradigm shift uncovering the ontology of reality. It is found to be information-theoretic and participatory, yielding a computational and programmable universe.

Information—Consciousness—Reality