

InfoGenerator

Your source of information – trustworthy, beneficial and handy

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Dear friends!

The Scientific Library of Belarusian National Technical University (BNTU) offers you «InfoGenerator» digest, a free access resource providing information support to teachers, students and university staff. It is prepared by library professionals and includes book reviews, open access resources and latest university news. Systematization by branch of science, annotations and additional materials make this a useful tool for readers' advisory, curriculum and research support.

The third issue of the digest contains additional resources in machine elements, engineering drawing, accuracy rating and technical measurements, electronics and circuitry, information technologies, fundamentals of environmental and energy sustainability of production.

Scientific Library of BNTU wishes you successful and productive work and study!

BNTU is 99 years old. Congratulations!

December 10, 2019, Belarusian National Technical University turns 99 years old.

BNTU is proud of its rich history, which is written by many generations of teachers, employees and, of course, our students.

Together we keep the traditions, live in the present and create the future!

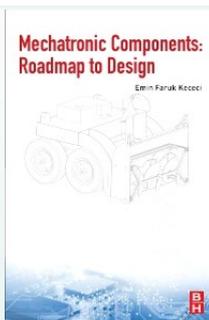


Machine Elements



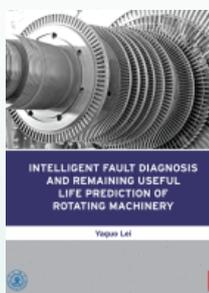
Machine-to-machine (M2M) Communications : Architecture, Performance and Applications / ed. : C. Antón-Haro, M. Dohler. - Woodhead Publishing, 2015. – 426 p. – Doi : <https://doi.org/10.1016/C2013-0-16459-8>

Machine-to-machine communications refers to autonomous communication between devices or machines. This book serves as a key resource in M2M, which is set to grow significantly and is expected to generate a huge amount of additional data traffic and new revenue streams, underpinning key areas of the economy such as the smart grid, networked homes, healthcare and transportation.



Kececi, E. F. Mechatronic Components : Roadmap to Design / E. F. Kececi. - Butterworth-Heinemann, 2019. – 248 p. – Doi : <https://doi.org/10.1016/C2017-0-01132-1>

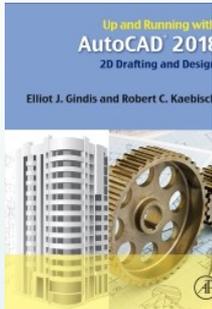
Mechatronic Components: Roadmap to Design explains the practical application of mechatronics, including sections on adaptive structures, robotics and other areas where mechanics and electronics converge. Professional engineers in a variety of areas will find this textbook to be extremely helpful with its in-depth use of flow diagrams and schemes that help readers understand the logic behind the design of such systems. Using approximately 130 different components with diagrams and flowcharts that help engineers from different fields understand the general properties and selection criteria of a component, this book presents a comprehensive resource on mechatronic components.



Lei, Y. Intelligent Fault Diagnosis and Remaining Useful Life Prediction of Rotating Machinery / Y. Lei. - Butterworth-Heinemann, 2017. – 376 p.

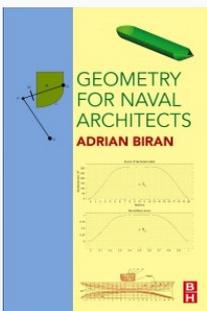
Intelligent Fault Diagnosis and Remaining Useful Life Prediction of Rotating Machinery provides a comprehensive introduction of intelligent fault diagnosis and RUL prediction based on the current achievements of the author's research group. The main contents include multi-domain signal processing and feature extraction, intelligent diagnosis models, clustering algorithms, hybrid intelligent diagnosis strategies, and RUL prediction approaches, etc.

Engineering Drawing



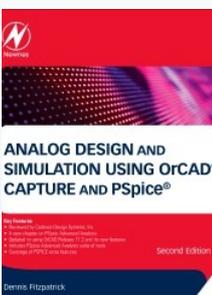
Gindis, E. J. Up and Running with AutoCAD® 2018 : 2D Drafting and Design / E. J. Gindis, R. C. Kaebisch. - Academic Press, 2018. – 582 p. – Doi : <https://doi.org/10.1016/C2017-0-00085-X>

It emphasizes core concepts and practical application of AutoCAD in engineering, architecture and design. Equally useful in instructor-led classroom training, self-study, or as a professional reference, the book is written by a long-time AutoCAD professional and instructor who presents topics that work in the industry and classroom.



Biran, A. Geometry for Naval Architects / A. Biran. - Butterworth-Heinemann, 2017. – 524 p. – Doi : <https://doi.org/10.1016/C2014-0-03962-7>

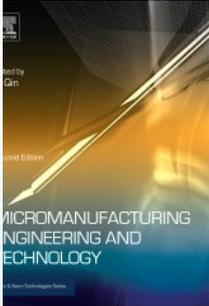
Geometry for Naval Architects is the essential guide to the principles of naval geometry. Formerly fragmented throughout various sources, the topic is now presented in this comprehensive book that explains the history and specific applications of modern naval architecture mathematics and techniques, including numerous examples, applications and references to further enhance understanding. With a natural four-section organization (Traditional Methods, Differential Geometry, Computer Methods, and Applications in Naval Architecture), users will quickly progress from basic fundamentals to specific applications.



Fitzpatrick, D. Analog Design and Simulation Using OrCAD Capture and Pspice / D. Fitzpatrick. – Newnes, 2018. – 452 p. – Doi : <https://doi.org/10.1016/C2017-0-01791-3>

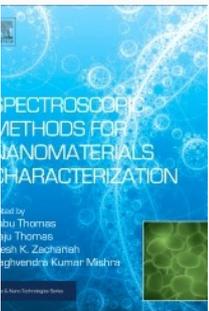
The book explains how to enter schematics in Capture, set up project types, project libraries and prepare circuits for PSpice simulation. There are chapters on the different analysis types for DC Bias point, DC sweep, AC frequency sweep, Parametric analysis, Temperature analysis, Performance Analysis, Noise analysis, Sensitivity and Monte Carlo simulation. Subsequent chapters explain how the Stimulus Editor is used to define custom analog and digital signals, how the Model Editor is used to view and create new PSpice models and Capture parts and how the Magnetic Parts Editor is used to design transformers and inductors. Other chapters include Analog Behavioral models, Test Benches as well as how to create hierarchical designs.

Accuracy Rating and Technical Measurements



Qin, Y. Micromanufacturing Engineering and Technology : A volume in Micro and Nano Technologies / Y. Qin. - 2nd ed. – William Andrew, 2015. – 858 p. – Doi : <https://doi.org/10.1016/C2013-0-19351-8>

The book not only covers theory and manufacturing processes, but it uniquely focuses on a broader range of practical aspects of micro-manufacturing engineering and utilization by also covering materials, tools and equipment, manufacturing system issues, control aspects and case studies. By explaining material selection, design considerations and economic aspects, the book empowers engineers in choosing among competing technologies.



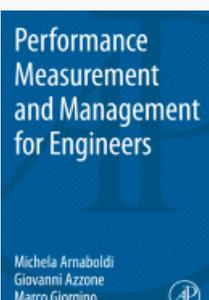
Spectroscopic Methods for Nanomaterials Characterization : A volume in Micro and Nano Technologies / ed. : S. Thomas [et al.]. – Elsevier, 2017. – 444 p.

Nanomaterials Characterization Techniques, Volume Two, part of an ongoing series, offers a detailed analysis of the different types of spectroscopic methods currently being used in nanocharacterization. These include, for example, the Raman spectroscopic method for the characterization of carbon nanotubes (CNTs).



Application of Thermo-Fluidic Measurement Techniques : An Introduction / ed. : T. Kim, T. J. Lu, S. J. Song. - Butterworth-Heinemann, - 2016. – 274 p. – Doi : <https://doi.org/10.1016/C2015-0-01881-0>

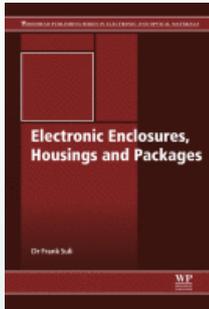
Application of Thermo-Fluidic Measurement Techniques: An Introduction provides essential measurement techniques in heat transfer and aerodynamics. In addition to a brief, but physically elaborate description of the principles of each technique, multiple examples for each technique are included. These examples elaborate all the necessary details of (a) test setups, (b) calibration, (c) data acquisition procedure, and (d) data interpretation, with comments on the limitations of each technique and how to avoid mistakes that are based on the authors' experience.



Arnaboldi, M. Performance Measurement and Management for Engineers / M. Arnaboldi, G. Azzone, M. Giorgino. - Academic Press, 2015. – 184 p. – Doi : <https://doi.org/10.1016/C2014-0-00475-3>

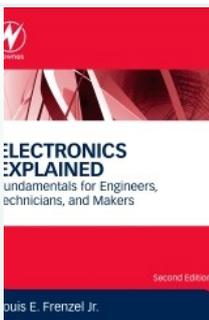
The book begins by explaining the ways and means of measurement. It then takes up financial measurement, describing and analyzing the typologies of financial indicators while illustrating their advantages and disadvantages. After focusing on measuring enterprise value, the second section takes up managing that value. Like the first, it pursues a double view: using indicators for internal control while employing them to analyze other companies. If engineering project managers possess a source of quantitative and qualitative information about business management, Performance Measurement and Management for Engineers will help them increase their contributions to the business.

Electronics and Circuitry



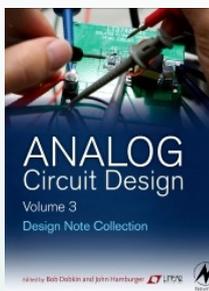
Süli, F. Electronic Enclosures, Housings and Packages : A volume in Woodhead Publishing Series in Electronic and Optical Materials / F. Süli. - Woodhead Publishing, 2019. – 562 p. – Doi : <https://doi.org/10.1016/C2017-0-00713-9>

Electronic Enclosures, Housings and Packages considers the problem of heat management for electronics from an encasement perspective.



Frenzel, L. E. Electronics Explained : Fundamentals for Engineers, Technicians, and Makers / L. E. Frenzel. - 2nd ed. – Newnes, 2018. – 400 p.

Electronics Explained, Second Edition, takes a systems based approach to the fundamentals of electronics, covering the different types of electronic circuits, how they work, and how they fit together to create modern electronic equipment, enabling you to apply, use, select, operate and discuss common electronic products and systems.



Dobkin, B. Analog Circuit Design : Volume 3: Design Note Collection / B. Dobkin, J. Hamburger. – Newnes, 2015. – 1136 p. – Doi : <https://doi.org/10.1016/C2013-0-13977-3>

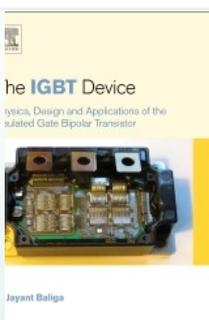
Design Note Collection, the third book in the Analog Circuit Design series, is a comprehensive volume of applied circuit design solutions, providing elegant and practical design techniques. Design Notes in this volume are focused circuit explanations, easily applied in your own designs.

Electronics and Circuitry



Mehler, R. Digital Integrated Circuit Design Using Verilog and Systemverilog / R. Mehler. – Newnes, 2015. – 448 p. – Doi : <https://doi.org/10.1016/C2012-0-06748-8>

The book covers not only the syntax and limitations of HDL coding, but deals extensively with design problems such as partitioning and synchronization, helping you to produce designs that are not only logically correct, but will actually work when turned into physical circuits. Throughout the book, many small examples are used to validate concepts and demonstrate how to apply design skills.



Baliga, B. J. The IGBT Device : Physics, Design and Applications of the Insulated Gate Bipolar Transistor / B. J. Baliga. - William Andrew, 2015. – 732 p. – Doi : <https://doi.org/10.1016/C2012-0-02174-6>

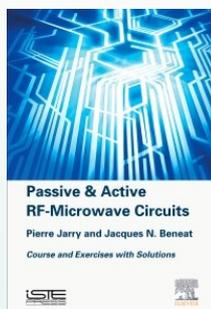
This book is the first available to cover the applications of the IGBT, and provide the essential information needed by applications engineers to design new products using the device, in sectors including consumer, industrial, lighting, transportation, medical and renewable energy.



Roupheal, T. J. Wireless Receiver Architectures and Design : Antennas, RF, Synthesizers, Mixed Signal, and Digital Signal Processing / T. J. Roupheal. - Academic Press, 2015. – 502 p. – Doi : <https://doi.org/10.1016/C2009-0-60920-X>

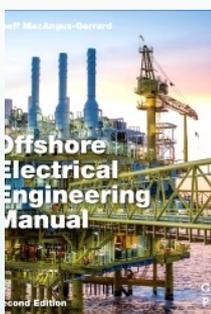
This one-stop reference and guide to designing low-cost low-power multi-mode, multi-standard receivers treats analog and digital signal processing simultaneously, with equal detail given to the chosen architecture and modulating waveform. It provides a complete understanding of the receiver's analog front end and the digital backend, and how each affects the other. The book explains the design process in great detail, starting from an analysis of requirements to the choice of architecture and finally to the design and algorithm development.

Electronics and Circuitry



Jarry, P. Passive & Active RF-Microwave Circuits : Course and Exercices with Solutions / P. Jarry, J. N. Beneat. - ISTE Press – Elsevier, 2015. – 280 p. – Doi : <https://doi.org/10.1016/C2014-0-04712-0>

This book explores the principal elements for receiving and emitting signals between Earth stations, satellites, and RF (mobile phones) in four parts; the theory and realization of couplers, computation and realization of microwave and RF filters, amplifiers and microwave and RF oscillators.



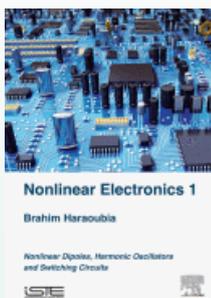
Macangus-Gerrard, G. Offshore Electrical Engineering Manual / G. Macangus-Gerrard. - 2nd ed. - Gulf Professional Publishing, 2017. – 554 p.

The book also provides information on equipment such as dual chargers and batteries for certain vital systems, switchgear tripping/closing, and engine start batteries which are dedicated to the equipment they supply. In the case of engines which drive fire pumps, duplicate charges and batteries are also required.



Sinclair, I. Electronics Simplified / I. Sinclair. - 3rd ed. – Newnes, 2011. – 368 p. – Doi : <https://doi.org/10.1016/C2010-0-65243-6>

Electronics Simplified, Third Edition, discusses the aims and methods of electronics, with emphasis on digital electronics and software options. It covers the latest developments in electronics, including Blu-ray, digital TV and radio, HD and 3D TV, robotic systems, radar, cellular phones, GPS, and microcomputers.



Haraoubia, B. Nonlinear Electronics 1 : Nonlinear Dipoles, Harmonic Oscillators and Switching Circuits / B. Haraoubia. - ISTE Press – Elsevier, 2019. – 360 p. – Doi : <https://doi.org/10.1016/C2017-0-01442-8>

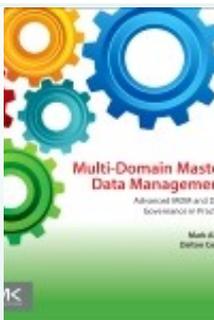
Nonlinear Electronics 1: Nonlinear Dipoles, Harmonic Oscillators and Switching Circuits deals with the appearance of nonlinear electronic circuits and their behavior. The book studies a number of circuits that interface between analog and digital electronics, including astable, monostable, bi-stable, Schmitt trigger, and analog-to-digital and digital-to-analog conversion. Users will find a complete resource that deals with all aspects of these circuits, starting from the discrete component and gradually working to the integrated circuit.

Information Technologies



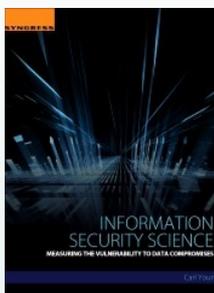
Gonzalez, D. Managing Online Risk : Apps, Mobile, and Social Media Security / D. Gonzalez. - Butterworth-Heinemann, 2015. – 286 p. – Doi : <https://doi.org/10.1016/C2013-0-09786-1>

In recent years, building a corporate online presence has become nonnegotiable for businesses, as consumers expect to connect with them in as many ways as possible. There are benefits to companies that use online technology, but there are risks as well. Managing Online Risk presents the tools and resources needed to better understand the security and reputational risks of online and digital activity, and how to mitigate those risks to minimize potential losses.



Allen, M. Multi-Domain Master Data Management : Advanced MDM and Data Governance in Practice / M. Allen, D. Cervo. - Morgan Kaufmann, 2015. – 244 p. – Doi : <https://doi.org/10.1016/C2013-0-18938-6>

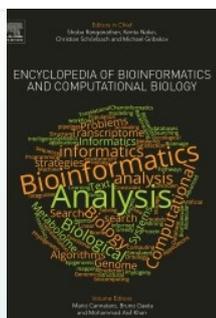
Written in a business friendly style with sufficient program planning guidance, this book covers a comprehensive set of topics and advanced strategies centered on the key MDM disciplines of Data Governance, Data Stewardship, Data Quality Management, Metadata Management, and Data Integration.



Young, C. S. Information Security Science : Measuring the Vulnerability to Data Compromises / C. S. Young. – Syngress, 2016. – 406 p. – Doi : <https://doi.org/10.1016/C2015-0-05918-4>

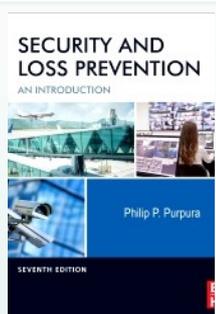
This book is the definitive reference for scientists and engineers with no background in security, and is ideal for security analysts and practitioners who lack scientific training. Importantly, it provides security professionals with the tools to prioritize information security controls and thereby develop cost-effective risk management strategies.

Information Technologies



Encyclopedia of Bioinformatics and Computational Biology / ed. : S. Ranganathan [et al.]. – Elsevier, 2019. – 3284 p.

The book covers Theory, Topics and Applications, with a special focus on Integrative –omics and Systems Biology. The theoretical, methodological underpinnings of BCB, including phylogeny are covered, as are more current areas of focus, such as translational bioinformatics, cheminformatics, and environmental informatics. Finally, Applications provide guidance for commonly asked questions.



Purpura, P. P. Security and Loss Prevention : An Introduction / P. P. Purpura. - 7th ed. - Butterworth-Heinemann, 2019. – 772 p. – Doi : <https://doi.org/10.1016/C2016-0-00231-0>

The book explains the real-world challenges facing security professionals and offers options for planning solutions. Linking physical security with IT security, the book covers internal and external threats to people and assets and private and public sector responses and issues.



Electronic Waste Management and Treatment Technology / ed. : M. N. V. Prasad, M. Vithanage. - Butterworth-Heinemann, 2019. – 405 p. – Doi : <https://doi.org/10.1016/C2017-0-03655-8>

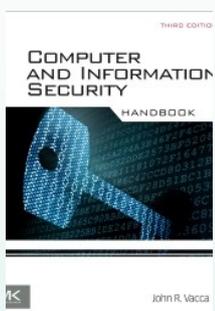
The book also discusses the fate of metals contained in waste electrical and electronic equipment in municipal waste treatment. Materials and methods for the remediation, recycling and treatment of plastic waste collected from waste electrical and electronic equipment (WEEE) are also covered.

Information Technologies



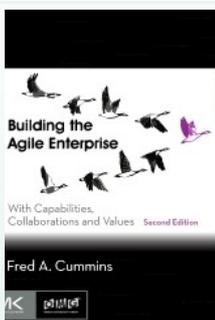
More, J. Breaking into Information Security : Crafting a Custom Career Path to Get the Job You Really Want / J. More, A. J. Stieber, C. Liu. – Syngress, 2016.

Unlike books that focus on a specific skill set or on how to gain a certification or get a job, this book encompasses the "big picture," including why certifications, if any, are worthwhile for you. In a profession where new career paths aren't always clear, Breaking into Information Security will teach you how to identify where you are in your career today, understand where you wish to go, and provide proven methods to get there.



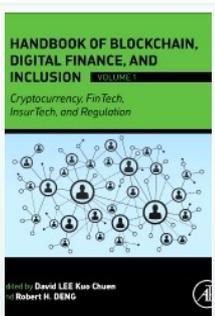
Computer and Information Security Handbook / ed. : J. R. Vacca. - 3rd ed. - Morgan Kaufmann, 2017. – 1280 p.

Computer and Information Security Handbook, Third Edition, provides the most current and complete reference on computer security available in one volume. The book offers deep coverage of an extremely wide range of issues in computer and cybersecurity theory, applications, and best practices, offering the latest insights into established and emerging technologies and advancements.



Cummins, F. A. Building the Agile Enterprise : With Capabilities, Collaborations and Values : A volume in The MK/OMG Press / F. A. Cummins. - 2nd ed. - Morgan Kaufmann, 2017. – 430 p. – Doi : <https://doi.org/10.1016/C2015-0-00928-5>

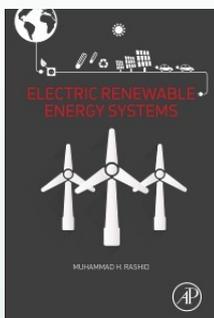
Building the Agile Enterprise with Capabilities, Collaborations and Values, Second Edition covers advances that make technology more powerful and pervasive while, at the same time, improving alignment of technology with business.



Handbook of Blockchain, Digital Finance, and Inclusion, Volume 1 : Cryptocurrency, FinTech, InsurTech, and Regulation / ed. : D. L. K. Chuen, R. Deng. - Academic Press, 2017. – 482 p. – Doi : <https://doi.org/10.1016/C2015-0-04334-9>

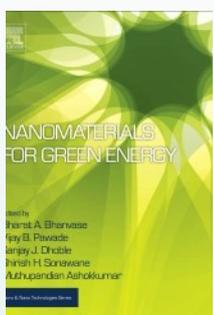
Handbook of Blockchain, Digital Finance, and Inclusion, Volume 1: Cryptocurrency, FinTech, InsurTech, and Regulation explores recent advances in digital banking and cryptocurrency, emphasizing mobile technology and evolving uses of cryptocurrencies as financial assets.

Fundamentals of Environmental and Energy Sustainability of Production



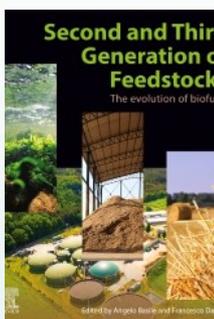
Rashid, M. H. Electric Renewable Energy Systems / M. H. Rashid. - Academic Press, 2016. – 450 p. – Doi : <https://doi.org/10.1016/C2013-0-14432-7>

This derivative volume stemming from content included in our seminal Power Electronics Handbook takes its chapters related to renewables and establishes them at the core of a new volume dedicated to the increasingly pivotal and as yet under-published intersection of Power Electronics and Alternative Energy.



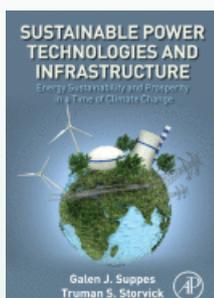
Nanomaterials for Green Energy : A volume in Micro and Nano Technologies / ed. : B. A. Bhanvase [et al.]. – Elsevier, 2018. – 500 p. – Doi : <https://doi.org/10.1016/C2017-0-00368-3>

Nanomaterials for Green Energy focuses on the synthesis, characterization and application of novel nanomaterials in the fields of green science and technology. This book contains fundamental information about the properties of novel nanomaterials and their application in green energy. In particular, synthesis and characterization of novel nanomaterials, their application in solar and fuel cells and batteries, and nanomaterials for a low-toxicity environment are discussed. It will provide an important reference resource for researchers in materials science and renewable energy who wish to learn more about how nanomaterials are used to create cheaper, more efficient green energy products.



Second and Third Generation of Feedstocks : The Evolution of Biofuels / ed. : A. Basile, F. Dalena. – Elsevier, 2019. – 654 p. – Doi : <https://doi.org/10.1016/C2017-0-02722-2>

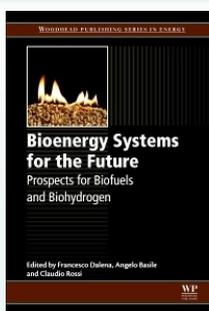
The book illustrates different aspects of the processes used for the production of biofuels, dealing specifically with second and third generation feedstocks from biomass and algae. The pretreatment of feedstocks and optimization of various forms of bioenergy are considered, along with the economic aspects of the various processes.



Suppes, G. J. Sustainable Power Technologies and Infrastructure : Energy Sustainability and Prosperity in a Time of Climate Change / G. J. Suppes, T. S. Storvick. – Academic Press, 2016. – 412 p. – Doi : <https://doi.org/10.1016/C2014-0-04843-5>

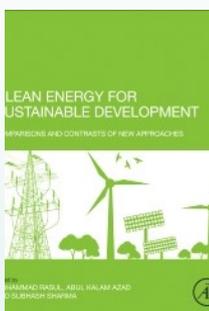
This book presents an overview of current renewable energy sources, challenges and future trends. Drawing from their longtime expertise and deep knowledge of the field, the authors present a critic and well-structured perspective on sustainable power sources and technologies, including solar, wind, hydrogen and nuclear, both in large and small scale. Using accessible language they provide rigorous technological reviews and analyze the main issues of practical usage.

Fundamentals of Environmental and Energy Sustainability of Production



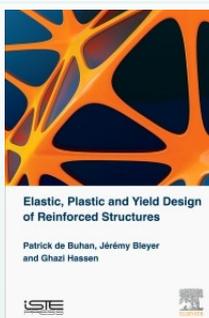
Bioenergy Systems for the Future : Prospects for Biofuels and Biohydrogen / ed. : F. Dalena, A. Basile, C. Rossi. - Woodhead Publishing, 2017. – 628 p. – Doi : <https://doi.org/10.1016/C2015-0-05815-4>

In its first part, the book explores the use of lignocellulosic biomass and agricultural wastes as feedstock, also addressing biomass conversion into biofuels, such as bioethanol, biodiesel, bio-methane, and bio-gasoline. The chapters in Part II cover several different pathways for hydrogen production, from biomass, including bioethanol and bio-methane reforming and syngas conversion. They also include a comparison between the most recent conversion technologies and conventional approaches for hydrogen production.



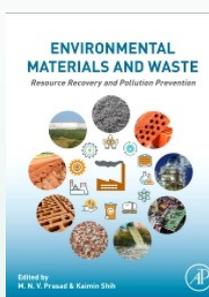
Clean Energy for Sustainable Development : Comparisons and Contrasts of New Approaches / ed. : M. G. Rasul, A. K. Azad, S. C. Sharma. - Academic Press, 2017. – 630 p.

Clean Energy for Sustainable Development: Comparisons and Contrasts of New Approaches presents information on the fundamental challenge that the energy sector faces with regard to meeting the ever growing demand for sustainable, efficient, and cleaner energy. The book compares recent developments in the field of energy technology, clean and low emission energy, and energy efficiency and environmental sustainability for industry and academia.



Renewable Energy Powered Desalination Handbook : Application and Thermodynamics / ed. : V. G. Gude. - Butterworth-Heinemann, 2018. – 622 p. – Doi : <https://doi.org/10.1016/C2017-0-02851-3>

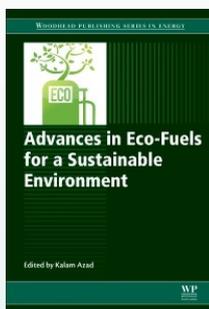
This book provides readers with the latest methods, processes, and technologies available for utilizing renewable energy applications as a valuable technology.



Environmental Materials and Waste : Resource Recovery and Pollution Prevention / ed. : M.N.V. Prasad, K. Shih. - Academic Press, 2016. – 750 p. – Doi : <https://doi.org/10.1016/C2014-0-05144-1>

Environmental Materials and Waste: Resource Recovery and Pollution Prevention contains the latest information on environmental sustainability as a wide variety of natural resources are increasingly being exploited to meet the demands of a worldwide growing population and economy.

Fundamentals of Environmental and Energy Sustainability of Production



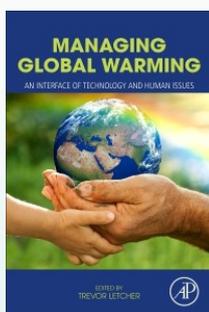
Advances in Eco-Fuels for a Sustainable Environment : A volume in Woodhead Publishing Series in Energy / ed. : K. Azad. - Woodhead Publishing, 2019. – 517 p. – Doi : <https://doi.org/10.1016/C2017-0-04211-8>

Advances in Eco-fuels for Sustainable Environment presents the most recent developments in the field of environmentally friendly eco-fuels. This book will help readers develop a deeper understanding of the relevant concepts and solutions to global sustainability issues with the goal of achieving cleaner, more efficient energy.



Current Developments in Biotechnology and Bioengineering : Waste Treatment Processes for Energy Generation / ed. : S. Kumar, R. Kumar, A. Pandey. – Elsevier, 2019. – 382 p.

The book's content encompasses all issues for energy recovery from waste in a very clear and simple manner, acting as a comprehensive resource for anyone seeking an understanding on the topic.



Managing Global Warming : An Interface of Technology and Human Issues / ed. : T. M. Letcher. - Academic Press, 2019. – 820 p. – Doi : <https://doi.org/10.1016/C2017-0-01028-5>

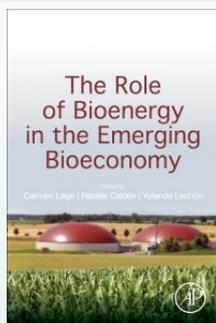
Managing Global Warming: An Interface of Technology and Human Issues discusses the causes of global warming, the options available to solve global warming problems, and how each option can be realistically implemented. It is the first book based on scientific content that presents an overall reference on both global warming and its solutions in one volume. Containing authoritative chapters written by scientists and engineers working in the field, each chapter includes the very latest research and references on the potential impact of wind, solar, hydro, geo-engineering and other energy technologies on climate change.



Advanced Bioprocessing for Alternative Fuels, Biobased Chemicals, and Bioproducts : Technologies and Approaches for Scale-Up and Commercialization : A volume in Woodhead Publishing Series in Energy / ed. : M. Hosseini. - Woodhead Publishing, 2019. – 448 p. – Doi : <https://doi.org/10.1016/C2018-0-02436-6>

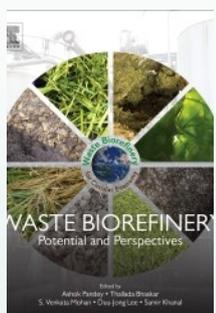
The book presents the use of novel oleaginous microorganisms and utilization strategies for applications of advanced bioprocessing technology in biofuels production and thoroughly depicts the technological breakthroughs of value added bioproducts. It also aides in the design, evaluation and production of biofuels by describing metabolic engineering and genetic manipulation of biofuels feedstocks.

Fundamentals of Environmental and Energy Sustainability of Production



The Role of Bioenergy in the Emerging Bioeconomy : Resources, Technologies, Sustainability and Policy / ed. : C. Lago, N. Caldés and Y. Lechón. - Academic Press, 2019. – 584 p. – Doi : <https://doi.org/10.1016/C2016-0-03740-3>

Provides the reader with a complete understanding on how bioenergy technologies fit into the new bioeconomy paradigm.



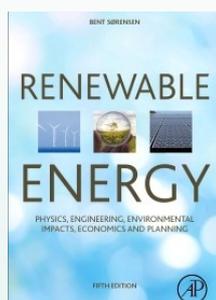
Waste Biorefinery : Potential and Perspectives / ed. : T. Bhaskar [et al.]. – Elsevier, 2018. – 890 p. – Doi : <https://doi.org/10.1016/C2016-0-02259-3>

The book explores recent developments in biochemical and thermo-chemical methods of conversion and the potential generated by different kinds of biomass in more decentralized biorefineries. Additionally, the book discusses the move from 200 years of raw fossil materials to renewable resources and how this shift is accompanied by fundamental changes in industrial manufacturing technologies (from chemistry to biochemistry) and in logistics and manufacturing concepts (from petrochemical refineries to biorefineries).



Dwevedi, A. Solutions to Environmental Problems Involving Nanotechnology and Enzyme Technology / A. Dwevedi. - Academic Press, 2019. – 199 p. – Doi : <https://doi.org/10.1016/C2016-0-04550-3>

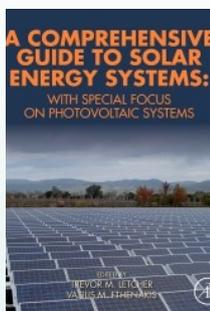
This book highlights this technology as it continues to provide solutions for various environmental problems.



Sørensen, B. Renewable Energy : Physics, Engineering, Environmental Impacts, Economics and Planning / B. Sørensen. – 5th ed. - Academic Press, 2017. – 1056 p.

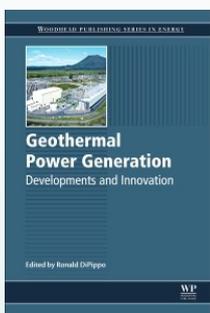
This volume is a problem-solving tool for engineers, researchers, students, consultants, and planners currently working in the field, as well as a detailed map of the renewables universe for those looking to expand into new technological specialties, offering the most comprehensive coverage of the subject available.

Fundamentals of Environmental and Energy Sustainability of Production



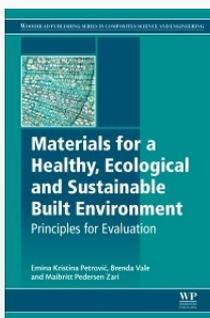
A Comprehensive Guide to Solar Energy Systems :With Special Focus on Photovoltaic Systems / ed. : T. M. Letcher, V. M. Fthenakis. - Academic Press, 2018. – 540 p. – Doi : <https://doi.org/10.1016/C2016-0-01527-9>

The book provides a high-level assessment of the growth trends in photovoltaics and how investment, planning and economic infrastructure can support those innovations. Each chapter includes a research overview with a detailed analysis and new case studies that look at how recent research developments can be applied. Written by some of the most forward-thinking professionals, this book is an invaluable reference for engineers.



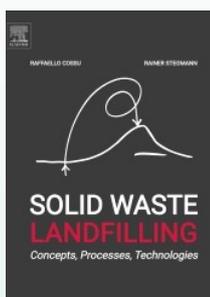
Geothermal Power Generation : Developments and Innovation / ed. : R. DiPippo. - Woodhead Publishing, 2016. – 854 p. – Doi : <https://doi.org/10.1016/C2014-0-03384-9>

This book, edited by a highly respected expert, provides a comprehensive overview of the major aspects of geothermal power production. The chapters, contributed by specialists in their respective areas, cover resource discovery, resource characterization, energy conversion systems, and design and economic considerations.



Petrović, E. K. Materials for a Healthy, Ecological and Sustainable Built Environment : Principles for Evaluation : A volume in Woodhead Publishing Series in Civil and Structural Engineering / E. K. Petrović, B. Vale, M. P. Zari. - Woodhead Publishing, 2017. – 416 p.

The book evaluates the issues involved in choosing materials from an ecosystem services perspective, from the design stage to the impact of materials on the health of building users.



Cossu, R. Solid Waste Landfilling : Concepts, Processes, Technologies / R. Cossu, R. Stegmann. – Elsevier, 2019. – 1190 p. – Doi : <https://doi.org/10.1016/C2012-0-02435-0>

Solid Waste Landfilling: Concepts, Processes, Technology provides information on technologies that promote stabilization and minimize environmental impacts in landfills. As the main challenges in waste management are the reduction and proper treatment of waste and the appropriate use of waste streams, the book satisfies the needs of a modern landfill, covering waste pre-treatment, in situ treatment, long-term behavior, closure, aftercare, environmental impact and sustainability. It is written for practitioners who need specific information on landfill construction and operation, but is also ideal for those concerned about the possible return of these sites to landscapes and their subsequent uses for future generations.

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Mechanical Engineering World

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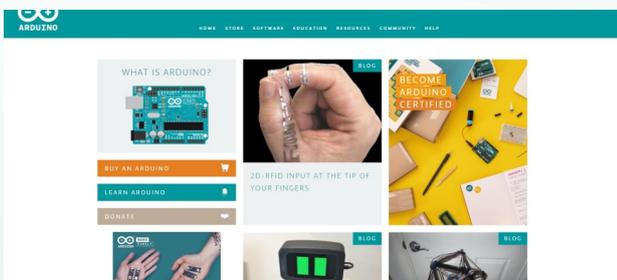
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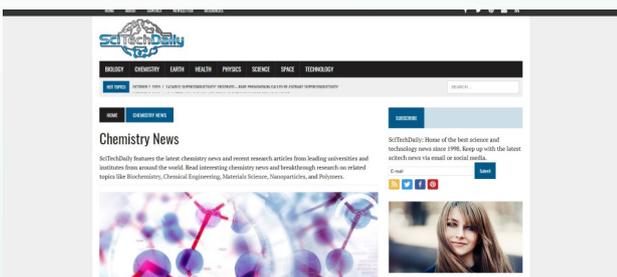
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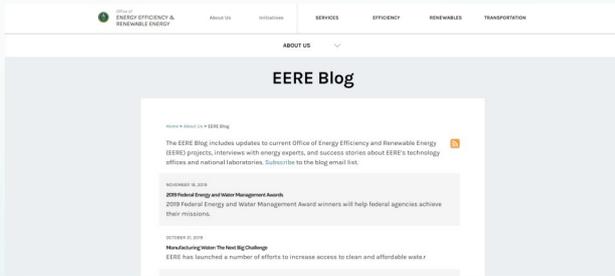
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The official journal of the International Energy and Environment Foundation (IEEF). The journal is a multi-disciplinary, peer-reviewed open access journal, covering all areas of energy and environment related fields that apply to the science and engineering communities.

News

The final symposium of the Regional Museum Academy with the participation of BNTU

On November 26, the final symposium of the Regional Museum Academy, organized by the Goethe Institut and ICOM in Belarus, was held at the Zaire Azgur Memorial Museum-Workshop. The topics of the symposium were problems and prospects for the development of museums in Belarus, the creation of a new museum network.

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The representative of the French business school Montpellier in BNTU

On December 4, trilateral negotiations took place at the Belarusian National Technical University, the participants of which were representatives of the leading provider of transnational education in Sri Lanka AIC Campus, as well as the deputy director of international reception and the manager of the international department Montpellier Business School, Mrs. Gaele Marie Anginalric.

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