

Springer Lecture Notes Impact Factor

This book presents best selected papers presented at the International Conference on Evolving Technologies for Computing, Communication and Smart World (ETCCS 2020) held on 31 January–1 February 2020 at C-DAC, Noida, India. It is co-organized by Southern Federal University, Russia; University of Jan Wy?ykowski (UJW), Polkowice, Poland; and CSI, India. C-DAC, Noida received funding from MietY during the event. The technical services are supported through EasyChair, Turnitin, MailChimp and IAC Education. The book includes current research works in the areas of network and computing technologies, wireless networks and Internet of things (IoT), futuristic computing technologies, communication technologies, security and privacy.

Cryptography is now ubiquitous – moving beyond the traditional environments, such as government communications and banking systems, we see cryptographic techniques realized in Web browsers, e-mail programs, cell phones, manufacturing systems, embedded software, smart buildings, cars, and even medical implants. Today's designers need a comprehensive understanding of applied cryptography. After an introduction to cryptography and data security, the authors explain the main techniques in modern cryptography, with chapters addressing stream ciphers, the Data Encryption Standard (DES) and 3DES, the

Advanced Encryption Standard (AES), block ciphers, the RSA cryptosystem, public-key cryptosystems based on the discrete logarithm problem, elliptic-curve cryptography (ECC), digital signatures, hash functions, Message Authentication Codes (MACs), and methods for key establishment, including certificates and public-key infrastructure (PKI). Throughout the book, the authors focus on communicating the essentials and keeping the mathematics to a minimum, and they move quickly from explaining the foundations to describing practical implementations, including recent topics such as lightweight ciphers for RFIDs and mobile devices, and current key-length recommendations. The authors have considerable experience teaching applied cryptography to engineering and computer science students and to professionals, and they make extensive use of examples, problems, and chapter reviews, while the book's website offers slides, projects and links to further resources. This is a suitable textbook for graduate and advanced undergraduate courses and also for self-study by engineers. This book presents the select proceedings of Congress on Advances in Materials Science and Engineering (CAMSE 2020). It focuses on the state-of-the-art research, development, and commercial prospective of recent advances in mechanical engineering. The book covers various synthesis and fabrication routes of functional and smart materials for applications in mechanical engineering, manufacturing, physics,

chemical and biological sciences, metrology, optimization and artificial intelligence among others. This book will be a useful resource for researchers, academicians as well as professionals interested in the highly interdisciplinary field of materials science and mechanical engineering.

This book comprises the proceedings of the 3rd Structural Integrity Conference and Exhibition (SICE 2020). The contents of the volume focus on structural integrity, life prediction, and condition monitoring which are reclassified under the domains of aerospace, fracture mechanics, fatigue, creep-fatigue interactions, civil structures, experimental techniques, computation mechanics, structural health monitoring, nondestructive testing, failure analysis, materials processing, stress corrosion cracking, reliability and risk analysis. This book will be a useful reference for students, researchers and practitioners.

Exploring Service Science

Data Science and Security

10th International Conference, ICAART 2018, Funchal, Madeira, Portugal, January 16 - 18, 2018, Revised Selected Papers

Proceedings of the 4th International Conference on Transportation Geotechnics Volume 1

Select Proceedings of ITHES 2021

Information Science and Applications

Game Theory for Networks

Polymeric Biomaterials and Bioengineering

This book comprises select proceedings of the International Conference on Innovations in Mechanical Engineering (ICIME 2021). It presents innovative ideas and new findings in the field of mechanical engineering. Various topics covered in this book are aerospace engineering, automobile engineering, thermal engineering, renewable energy sources, bio-mechanics, fluid mechanics, MEMS, mechatronics, robotics, CAD/CAM, CAE, CFD, design and optimization, tribology, materials engineering and metallurgy, mimics, surface engineering, nanotechnology, polymer science, manufacturing, production management, industrial engineering and rapid prototyping. This book will be useful for the students, researchers and professionals working in the various areas of mechanical engineering.

This book presents the research and development-related results of the “FIRST” Quantum Information Processing Project, which was conducted from 2010 to 2014 with the support of the Council for Science, Technology and Innovation of the Cabinet Office of the Government of

Japan. The project supported 33 research groups and explored five areas: quantum communication, quantum metrology and sensing, coherent computing, quantum simulation, and quantum computing. The book is divided into seven main sections. Parts I through V, which consist of twenty chapters, focus on the system and architectural aspects of quantum information technologies, while Parts VI and VII, which consist of eight chapters, discuss the superconducting quantum circuit, semiconductor spin and molecular spin technologies. Readers will be introduced to new quantum computing schemes such as quantum annealing machines and coherent Ising machines, which have now arisen as alternatives to standard quantum computers and are designed to successfully address NP-hard/NP-complete combinatorial optimization problems, which are ubiquitous and relevant in our modern life. The book offers a balanced mix of theory-based and experimentation-based chapters written by leading researchers. Extensive information is provided on Quantum simulation, which focuses on the implementation of various many-body Hamiltonians in a well-controlled physical system, Quantum key distribution, Quantum repeaters and quantum teleportation, which are indispensable technologies for building quantum networks with

various advanced applications and require far more sophisticated experimental techniques to implement.

This book presents a collection of peer-reviewed articles from the 7th International Conference on Microelectronics, Circuits, and Systems – Micro 2020. The volume covers the latest development and emerging research topics of material sciences, devices, microelectronics, circuits, nanotechnology, system design and testing, simulation, sensors, photovoltaics, optoelectronics, and its different applications. This book also deals with several tools and techniques to match the theme of the conference. It will be a valuable resource for researchers, professionals, Ph.D. scholars, undergraduate and postgraduate students working in Electronics, Microelectronics, Electrical, and Computer Engineering. This book presents select proceedings of the International Virtual Conference on Trends in Hydrological and Environmental Systems (ITHES 2021). Various topics covered in this book include urban hydrology, hydrological extremes, statistical analysis of hydro-meteorological data, impacts of climate change, hydrological modelling, groundwater studies, water resource management and applications of RS & GIS in hydrology. The book also discusses various topics on

applications of CFD in water resources and environmental engineering, water and wastewater treatment, solid waste management and air quality. The book will be a valuable reference for beginners, researchers, and professionals interested in environmental civil engineering, especially hydrological and environmental systems.

Statistical Foundations of Data Science

Innovations in Mechanical Engineering

My Status Has Changed

Learning and Intelligent Optimization

Proceedings of ESDA 2019

ICSES 2020

Select Proceedings of ICETSGAI4.0

Recent Advances in Mechanical Engineering

This volume presents selected papers presented during the 4th International Conference on Transportation Geotechnics (ICTG). The papers address the geotechnical challenges in design, construction, maintenance, monitoring, and upgrading of roads, railways, airfields, and harbor facilities and other ground transportation infrastructure with the goal of providing safe, economic, environmental, reliable and sustainable infrastructures. This volume will be of interest to postgraduate students, academics, researchers, and consultants

working in the field of civil and transport infrastructure.

This book reports on cutting-edge research and technologies in the field of advanced manufacturing and materials, with a special emphasis on unconventional machining process, rapid prototyping and biomaterials. It gathers contributions to the International Conference on Manufacturing Engineering and Materials (ICMEM 2020), which was originally planned in June 2020, but will actually take place in 2021, in Nový Smokovec, Slovakia, because of the Covid-19 pandemic. Despite the challenging times, submitted contributions were peer-reviewed, and upon a careful revision, included in this book, which covers advances that are expected to increase the industry's competitiveness with regard to sustainable development and preservation of the environment and natural resources. Condition monitoring, industrial automation, and diverse fabrication processes such as welding, casting and molding, as well as tribology and bioengineering, are just a few of the topics discussed in the book's wealth of authoritative contributions. A special emphasis is given to problems connected to climate change and solution manufacturer and engineers may adopt and develop to prevent and cope with them.

Microelectronics, Circuits and Systems
Select Proceedings of 7th International Conference on Micro2020
Springer Nature

This book presents select proceedings of the APA Bioforum International e-Conference on Polymeric Biomaterials & Bioengineering (APA Bioforum 2021). This book mainly focuses on developing innovative polymeric materials for

bioengineering and human healthcare systems. This book helps in the understanding of molecular architecture and its role in governing physical characteristics which is extremely useful to understand the interactions with the biosystem. The topics covered include polymer synthesis, biopolymers, biomaterials, smart materials, nanotechnology, tissue engineering, wound care system, hydrogel, targeted drug delivery, water decontamination and purification. The book will be a valuable reference for beginners, researchers and professionals interested in polymeric materials and biomaterials.

Machine Learning for Networking

Proceedings of ETCCS 2020

Select Proceedings of ICAAAIML 2020

Computational Quantum Mechanics

14th WCEAM Proceedings

12th International Conference, LION 12, Kalamata, Greece, June 10-15, 2018,

Revised Selected Papers

Proceedings of International Conference on Sustainable Expert Systems

Advances in Transportation Geotechnics IV

This book contains the proceedings of the International Symposium on the Mechanisms of Sexual Reproduction in Animals and Plants, where many plant and animal reproductive biologists gathered to discuss their recent progress in investigating the shared mechanisms and factors involved in sexual reproduction.

This now is the first book that reviews recent progress in almost all fields of plant and animal fertilization. It was recently reported that the self-sterile mechanism of a hermaphroditic marine invertebrate (ascidian) is very similar to the self-incompatibility system in flowering plants. It was also found that a male factor expressed in the sperm cells of flowering plants is involved in gamete fusion not only of plants but also of animals and parasites. These discoveries have led to the consideration that the core mechanisms or factors involved in sexual reproduction may be shared by animals, plants and unicellular organisms. This valuable book is highly useful for reproductive biologists as well as for biological scientists outside this field in understanding the current progress of reproductive biology.

This book constitutes the refereed proceedings of the 8th EAI International Conference on Game Theory for Networks, GameNets 2019, held in Paris, France, in April 2019. The 8 full and 3 short papers presented were carefully reviewed and selected from 17 submissions. They are organized in the following topical sections: Game Theory for Wireless Networks; Games for Economy and Resource Allocation; and Game Theory for Social Networks.

This book constitutes the thoroughly refereed post-conference proceedings of the 12th International Conference on Learning and Intelligent Optimization, LION 12,

held in Kalamata, Greece, in June 2018. The 28 full papers and 12 short papers presented have been carefully reviewed and selected from 62 submissions. The papers explore the advanced research developments in such interconnected fields as mathematical programming, global optimization, machine learning, and artificial intelligence. Special focus is given to advanced ideas, technologies, methods, and applications in optimization and machine learning.

This book comprises select proceedings of the First International Conference on Urban Science and Engineering. The focus of the conference was on the milieu of urban planning while applying technology which ensures better urban life, coupled with sensitivity to depleting natural resources and focus on sustainable development. The contents focus on sustainable infrastructure, mobility and planning, urban water and sanitization, green construction materials, optimization and innovation in structural design, and more. This book aims to provide up-to-date and authoritative knowledge from both industrial and academic worlds, sharing best practice in the field of urban science and engineering. This book is beneficial to students, researchers, and professionals working in the field of smart materials and sustainable development. ^

Information and Communication Technology for Competitive Strategies (ICTCS 2020)

Data Science and Intelligent Systems

Intelligent Strategies for ICT

8th International EAI Conference, GameNets 2019, Paris, France, April 25-26, 2019, Proceedings

Smart Societies, Infrastructure, Technologies and Applications

Understanding Cryptography

Proceedings of the International Conference on Advanced Intelligent Systems and Informatics 2021

9th International Conference, IESS 2018, Karlsruhe, Germany, September 19–21, 2018, Proceedings

This book constitutes the thoroughly refereed proceedings of the Second International Conference on Machine Learning for Networking, MLN 2019, held in Paris, France, in December 2019. The 26 revised full papers included in the volume were carefully reviewed and selected from 75 submissions. They present and discuss new trends in deep and reinforcement learning, pattern recognition and classification for networks, machine learning for network slicing optimization, 5G system, user behavior prediction, multimedia, IoT, security and protection, optimization and new innovative machine learning methods, performance analysis of machine learning algorithms, experimental evaluations of machine learning, data mining in heterogeneous networks, distributed and decentralized machine

learning algorithms, intelligent cloud-support communications, resource allocation, energy-aware communications, software defined networks, cooperative networks, positioning and navigation systems, wireless communications, wireless sensor networks, underwater sensor networks.

The book presents a collection of peer-reviewed articles from the International Conference on Advances and Applications of Artificial Intelligence and Machine Learning - ICAAIML 2020. The book covers research in artificial intelligence, machine learning, and deep learning applications in healthcare, agriculture, business, and security. This volume contains research papers from academicians, researchers as well as students. There are also papers on core concepts of computer networks, intelligent system design and deployment, real-time systems, wireless sensor networks, sensors and sensor nodes, software engineering, and image processing. This book will be a valuable resource for students, academics, and practitioners in the industry working on AI applications.

This book presents select proceedings of 11th International Conference on Information Science and Applications 2020 (ICISA 2020) and provides a snapshot of the latest issues encountered in technical convergence and convergences of security technology. It explores how information science is core to most current research, industrial and commercial activities and consists of contributions covering topics including Ubiquitous Computing, Networks and Information Systems, Multimedia and Visualization, Middleware and Operating Systems,

Security and Privacy, Data Mining and Artificial Intelligence, Software Engineering, and Web Technology. Also the proceedings introduce the most recent information technology and ideas, applications and problems related to technology convergence, illustrated through case studies, and reviews converging existing security techniques. Through this book, readers can gain an understanding of the current state-of-the-art information strategies and technologies of convergence security.

This book constitutes the refereed post-conference proceedings of the First International Conference on Smart Cities, Infrastructures, Technologies and Applications, SCITA 2017, held in Jeddah, Saudi Arabia, in November 2017. The 35 revised full papers were carefully reviewed and selected from 62 submissions. The papers are grouped in topical sections: infrastructure track, e-governance and transportation track, healthcare track, applications track.

Urban Science and Engineering

Proceedings of 5th Computational Methods in Systems and Software 2021, Vol. 2

Proceedings of the 2nd International Conference on Data Science, Machine Learning and Applications

26th International Conference on the Theory and Application of Cryptology and Information Security, Daejeon, South Korea, December 7–11, 2020, Proceedings, Part I

Third International Conference, MLN 2020, Paris, France, November 24–26, 2020, Revised Selected Papers

Proceedings of ICISA 2020

Advances in Structural Integrity

A Self Help Manual Built Upon Biblical Truths With Great Substance. The three-volume proceedings LNCS 12491, 12492, and 12493 constitutes the proceedings of the 26th International Conference on the Theory and Application of Cryptology and Information Security, ASIACRYPT 2020, which was held during December 7-11, 2020. The conference was planned to take place in Daejeon, South Korea, but changed to an online format due to the COVID-19 pandemic. The total of 85 full papers presented in these proceedings was carefully reviewed and selected from 316 submissions. The papers were organized in topical sections as follows: Part I: Best paper awards; encryption schemes.- post-quantum cryptography; cryptanalysis; symmetric key cryptography; message authentication codes; side-channel analysis. Part II: public key cryptography; lattice-based cryptography; isogeny-based cryptography; quantum algorithms; authenticated key exchange. Part III: multi-party computation; secret

sharing; attribute-based encryption; updatable encryption; zero knowledge; blockchains and contact tracing.

This book comprises select proceedings of the International Conference on Emerging Trends for Smart Grid Automation and Industry 4.0 (ICETSGAI4.0 2019). The contents discuss the recent trends in smart grid technology and related applications. The topics covered include data analytics for smart grid operation and control, integrated power generation technologies, green technologies as well as advances in microgrid operation and planning. The book highlights the enhancement in technology in the field of smart grids, and how IoT, big data, robotics and automation, artificial intelligence, and wide area measurement have become prerequisites for the fourth industrial revolution, also known as Industry 4.0. The book can be a valuable reference for researchers and professionals interested in smart grid automation incorporating features of Industry 4.0.

This book presents selected articles from the 5th International Conference on Geotechnics, Civil Engineering Works and Structures, held in Ha Noi, focusing on the theme “Innovation for Sustainable Infrastructure”, aiming to not only raise awareness of the vital

importance of sustainability in infrastructure development but to also highlight the essential roles of innovation and technology in planning and building sustainable infrastructure. It provides an international platform for researchers, practitioners, policymakers and entrepreneurs to present their recent advances and to exchange knowledge and experience on various topics related to the theme of “Innovation for Sustainable Infrastructure”.

Information Science and Applications 2018

First International Conference, SCITA 2017, Jeddah, Saudi Arabia, November 27–29, 2017, Proceedings

Advances in Cryptology – ASIACRYPT 2020

ICISA 2018

A Textbook for Students and Practitioners

Select Proceedings of 7th International Conference on Micro2020

Select Proceedings of CAMSE 2020

Advances in Manufacturing Engineering and Materials II

This second edition of How to Write and Illustrate a Scientific Paper will help both first-time writers and more experienced authors, in all biological and medical disciplines, to present their results effectively. Whilst retaining the easy-to-read and well-structured

approach of the previous edition, it has been broadened to include comprehensive advice on writing compilation theses for doctoral degrees, and a detailed description of preparing case reports. Illustrations, particularly graphs, are discussed in detail, with poor examples redrawn for comparison. The reader is offered advice on how to present the paper, where and how to submit the manuscript, and finally, how to correct the proofs. Examples of both good and bad writing, selected from actual journal articles, illustrate the author's advice - which has been developed through his extensive teaching experience - in this accessible and informative guide.

This book constitutes the second part of refereed proceedings of the 5th Computational Methods in Systems and Software 2021 (CoMeSySo 2021) proceedings. The real-world problems related to data science and algorithm design related to systems and software engineering are presented in this papers. Furthermore, the basic research' papers that describe novel approaches in the data science, algorithm design and in systems and software engineering are included. The CoMeSySo 2021 conference is breaking the barriers, being held online. CoMeSySo 2021 intends to provide an international forum for the discussion of the latest high-quality research results

This book presents selected peer-reviewed papers presented at the International Conference on Innovative Technologies in Mechanical Engineering (ITME) 2019. The book discusses a wide range of topics in mechanical engineering such as mechanical systems, materials engineering, micro-machining, renewable energy, systems engineering,

thermal engineering, additive manufacturing, automotive technologies, rapid prototyping, computer aided design and manufacturing. This book, in addition to assisting students and researchers working in various areas of mechanical engineering, can also be useful to researchers and professionals working in various allied and interdisciplinary fields.

This book contains the revised and extended versions of selected papers from the 10th International Conference, ICAART 2018, held in Funchal, Madeira, Portugal, in January 2018. The 45 full papers together with 42 short papers and 26 Posters were carefully reviewed and selected from 161 initial submissions. The papers are organized in topics such as Agents, Artificial Intelligence, Semantic Web, Multi-Agent Systems, Distributed Problem Solving, Agent Communication and much more.

Proceedings of the 5th International Conference on Geotechnics, Civil Engineering Works and Structures

Sexual Reproduction in Animals and Plants

Microelectronics, Circuits and Systems

Innovative Trends in Hydrological and Environmental Systems

Principles and Methods of Quantum Information Technologies

Structural Integrity over Multiple Length Scales

Advances in Smart Grid Automation and Industry 4.0

Advances in Mechanical Engineering

This book presents the peer-reviewed proceedings of the 2nd

International Conference on Computational and Bioengineering (CBE 2020) jointly organized in virtual mode by the Department of Computer Science and the Department of BioScience & Sericulture, Sri Padmavati Mahila Visvavidyalayam (Women's University), Tirupati, Andhra Pradesh, India, during 4–5 December 2020. The book includes the latest research on advanced computational methodologies such as artificial intelligence, data mining and data warehousing, cloud computing, computational intelligence, soft computing, image processing, Internet of things, cognitive computing, wireless networks, social networks, big data analytics, machine learning, network security, computer networks and communications, bioinformatics, biocomputing/biometrics, computational biology, biomaterials, bioengineering, and medical and biomedical informatics.

This book gathers selected peer-reviewed papers from the 14th World Congress on Engineering Asset Management (WCEAM), which was held in Singapore on 28–31 July 2019, as well as

papers presented during the 1st WCEAMOnline event which focused on the ramifications of Covid-19 on infrastructure systems. This book covers a wide range of topics in engineering asset management, including: asset management services provisioning; servitization; decision-making; asset management systems; industrial Internet of things; and vulnerability and resilience of infrastructure systems. The breadth and depth of these state-of-the-art, comprehensive proceedings make them an excellent resource for asset management practitioners, researchers and academics, as well as undergraduate and postgraduate students.

This book constitutes the proceedings of the 9th International Conference on Exploring Services Science, IESS 2018, held in Karlsruhe, Germany, in September 2018. The 30 papers presented in this volume were carefully reviewed and selected from 67 submissions. The book is structured in six parts, each featuring contributions describing current research in a particular domain of service science: Service Design and Innovation; Smart Service Processes; Big Data in

Services; Service Topics Open Exploration; Design Science Research in Services. The book offers an extended, ICT-focused vision on services and addresses multiple relevant aspects, including underlying business models, the necessary processes and technological capabilities like big data and machine learning. The academic work showcased at the conference should help to advance service science and its application in practice.

This book presents best selected papers presented at the International Conference on Data Science for Computational Security (IDSCS 2020), organized by the Department of Data Science, CHRIST (Deemed to be University), Pune Lavasa Campus, India, during 13-14 March 2020. The proceeding will be targeting the current research works in the areas of data science, data security, data analytics, artificial intelligence, machine learning, computer vision, algorithms design, computer networking, data mining, big data, text mining, knowledge representation, soft computing and cloud computing.

Select Proceedings of APA Bioforum 2021

Proceedings of ICUSE 2020

Smart Trends in Computing and Communications

Proceedings of the International Conference on Manufacturing Engineering and Materials (ICMEM 2020), 21-25 June, 2021, Nový Smokovec, Slovakia

Select Proceedings of ITME 2019

CIGOS 2019, Innovation for Sustainable Infrastructure

ICDSMLA 2020

Proceedings of the 2nd International Conference on Computational and Bio Engineering

Statistical Foundations of Data Science gives a thorough introduction to commonly used statistical models, contemporary statistical machine learning techniques and algorithms, along with their mathematical insights and statistical theories. It aims to serve as a graduate-level textbook and a research monograph on high-dimensional statistics, sparsity and covariance learning, machine learning, and statistical inference. It includes ample exercises that involve both theoretical studies as well as empirical applications. The book begins with an introduction to the stylized features of big data and their impacts on statistical analysis.

It then introduces multiple linear regression and expands the techniques of model building via nonparametric regression and kernel tricks. It provides a comprehensive account on sparsity explorations and model selections for multiple regression, generalized linear models, quantile regression, robust regression, hazards regression, among others. High-dimensional inference is also thoroughly addressed and so is feature screening. The book also provides a comprehensive account on high-dimensional covariance estimation, learning latent factors and hidden structures, as well as their applications to statistical estimation, inference, prediction and machine learning problems. It also introduces thoroughly statistical machine learning theory and methods for classification, clustering, and prediction. These include CART, random forests, boosting, support vector machines, clustering algorithms, sparse PCA, and deep learning.

This book includes papers on intelligent expert systems and sustainability applications in the areas of data science, image processing, wireless communication, risk assessment, healthcare, intelligent social network mining, and energy. The recent growth of sustainability leads to a progressively new era of computing, where its design and deployment leverages significant impact on the intelligent systems research. Moreover, the sustainability technologies can be effectively used in the progressive deployment of various network-enabled technologies like

intelligent sensors, smart cities, wearable technologies, robotics, web applications and other such Internet technologies. The thrust of this book is to publish the state-of-the-art research articles that deals with the design, development, implementation and testing of the intelligent expert systems and also to provide an overview of the sustainable management of these systems.

This book contains selected papers from the 9th International Conference on Information Science and Applications (ICISA 2018) and provides a snapshot of the latest issues encountered in technical convergence and convergences of security technology. It explores how information science is core to most current research, industrial and commercial activities and consists of contributions covering topics including Ubiquitous Computing, Networks and Information Systems, Multimedia and Visualization, Middleware and Operating Systems, Security and Privacy, Data Mining and Artificial Intelligence, Software Engineering, and Web Technology. The proceedings introduce the most recent information technology and ideas, applications and problems related to technology convergence, illustrated through case studies, and reviews converging existing security techniques. Through this volume, readers will gain an understanding of the current state-of-the-art information strategies and technologies of convergence security. The intended readership includes researchers in academia, industry and other research institutes focusing on information

science and technology.

This book contains the best selected research papers presented at ICTCS 2020: Fifth International Conference on Information and Communication Technology for Competitive Strategies. The conference was held at Jaipur, Rajasthan, India during 11-12 December 2020. The book covers state-of-the-art as well as emerging topics pertaining to ICT and effective strategies for its implementation for engineering and managerial applications. This book contains papers mainly focused on ICT for computation, algorithms and data analytics and IT security.

Evolving Technologies for Computing, Communication and Smart World Agents and Artificial Intelligence

Energy Systems, Drives and Automations

How to Write and Illustrate a Scientific Paper

CBE 2020

Select Proceedings of ICIME 2021

Proceedings of IDSCS 2020

Applications of Artificial Intelligence and Machine Learning

This book gathers selected research papers presented at the Second International Conference on Energy Systems, Drives and Automations (ESDA 2019), held in Kolkata on 28–29 December 2019. It covers a broad range of topics in the

fields of renewable energy, power management, drive systems for electrical machines and automation. Also discussing a variety of related tools and techniques, the book offers a valuable resource for researchers, professionals and students in electrical and mechanical engineering disciplines.

Quantum mechanics undergraduate courses mostly focus on systems with known analytical solutions; the finite well, simple Harmonic, and spherical potentials. However, most problems in quantum mechanics cannot be solved analytically. This textbook introduces the numerical techniques required to tackle problems in quantum mechanics, providing numerous examples en route. No programming knowledge is required – an introduction to both Fortran and Python is included, with code examples throughout. With a hands-on approach, numerical techniques covered in this book include differentiation and integration, ordinary and differential equations, linear algebra, and the Fourier transform. By completion of this book, the reader will be armed to solve

the Schrödinger equation for arbitrarily complex potentials, and for single and multi-electron systems.

This book gathers selected high-impact articles from the 2nd International Conference on Data Science, Machine Learning & Applications 2020. It highlights the latest developments in the areas of artificial intelligence, machine learning, soft computing, human-computer interaction and various data science and machine learning applications. It brings together scientists and researchers from different universities and industries around the world to showcase a broad range of perspectives, practices and technical expertise.