

## **Dr G Senthil Kumar Engineering Physics Book**

This book includes original unpublished contributions presented at the International Conference on Data Analytics and Management (ICDAM 2021), held at Jan Wyzykowski University, Poland, during June 2021. The book covers the topics in data analytics, data management, big data, computational intelligence, and communication networks. The book presents innovative work by leading academics, researchers, and experts from industry which is useful for young researchers and students. We are delighted to introduce the proceedings of the first edition of the 2020 European Alliance for Innovation (EAI) International Conference on Advanced Scientific Innovation in Science, Engineering and Technology. This conference has brought innovative academics, industrial experts researchers, developers and practitioners around the world in the field of Science, Engineering and Technology to a common forum. The technical program of ICASISSET 2020 consisted of 97 full papers, including 6 invited papers in oral presentation sessions at the main conference tracks. The conference tracks were: Innovative Computing, Advanced innovation technology in Communication, Industry automation, hydrogen hybrid machine, computing in medical applications, Image processing and Internet of Things (IoT) and application. Aside from the high-quality technical paper presentations, the technical program also featured two keynote speeches, one invited talk and two technical workshops. The two keynote speeches were Dr. Hoshang Kolivand, Senior Lecturer, Liverpool John moores University, United Kingdom and Dr. Sheldon Williamson from Canada Research Chair in Electric Energy Storage Systems for Transportation Electrification and Professor in the Department of Electrical, Computer and Software Engineering, Ontario Tech University. The two workshops organized were in the topics of Machine learning and Industrial applications. The workshop aimed to gain insights into key challenges, understanding and design criteria of employing recent technologies to develop and implement computational techniques and applications.

This book gathers the best articles presented by researchers and industrial experts at the International Conference on “ Innovative Design and Development Practices in Aerospace and Automotive Engineering (I-DAD 2018) ” . The papers discuss new design concepts, analysis and manufacturing technologies, with an emphasis on achieving improved performance by downsizing; improving the weight-to-strength ratio, fuel efficiency, and operational capability at room and elevated temperatures; reducing wear and tear; and addressing NVH aspects, while balancing the challenges of Euro IV/Barat Stage IV emission norms and beyond, greenhouse effects, and recyclable materials. The innovative methods discussed here offer valuable reference material for educational and research organizations, as well as industry, encouraging them to pursue challenging projects of mutual interest.

Geotechnical engineering has become an important discipline of civil engineering due to its rapid advancements and environmental challenges. Special emphasis is placed on innovative materials in the fields of geotechnical engineering, pavement engineering, health monitoring of structures and sustainability. Keywords: Green Building Materials, Cement Based Materials,

Concrete Applications, Photocatalytic Effect on Paver Blocks, Stabilization of Black Cotton Soil, Concrete Filled Steel Tube Columns, Cenosphere, Fly Ash Brick, Stone Columns, Reinforced Concrete Beams, Interlocking Masonry Units, Lightweight Filler Materials, Soil Stabilization Using Fibres, Friction Stir Welding of Aluminum and Magnesium.

Proceedings of the First International Conference on Advanced Scientific Innovation in Science, Engineering and Technology, ICASISSET 2020, 16-17 May 2020, Chennai, India

Intelligent Strategies for ICT

Intelligence in Big Data Technologies—Beyond the Hype

Proceedings of Data Analytics and Management

ICT: Applications and Social Interfaces

Business Environment and Technological Innovation- Emerging Trends

*This book gathers selected papers presented at the 4th International Conference on Artificial Intelligence and Evolutionary Computations in Engineering Systems, held at the SRM Institute of Science and Technology, Kattankulathur, Chennai, India, from 11 to 13 April 2019. It covers advances and recent developments in various computational intelligence techniques, with an emphasis on the design of communication systems. In addition, it shares valuable insights into advanced computational methodologies such as neural networks, fuzzy systems, evolutionary algorithms, hybrid intelligent systems, uncertain reasoning techniques, and other machine learning methods and their application to decision-making and problem-solving in mobile and wireless communication networks. The first of many important works featured in CRC Press' Metals and Alloys Encyclopedia Collection, the Encyclopedia of Iron, Steel, and Their Alloys covers all the fundamental, theoretical, and application-related aspects of the metallurgical science, engineering, and technology of iron, steel, and their alloys. This Five-Volume Set addresses topics such as extractive metallurgy, powder metallurgy and processing, physical metallurgy, production engineering, corrosion engineering, thermal processing, metalworking, welding, iron- and steelmaking, heat treating, rolling, casting, hot and cold forming, surface finishing and coating, crystallography, metallography, computational metallurgy, metal-matrix composites, intermetallics, nano- and micro-structured metals and alloys, nano- and micro-alloying effects, special steels, and mining. A valuable reference for*

materials scientists and engineers, chemists, manufacturers, miners, researchers, and students, this must-have encyclopedia: Provides extensive coverage of properties and recommended practices Includes a wealth of helpful charts, nomograms, and figures Contains cross referencing for quick and easy search Each entry is written by a subject-matter expert and reviewed by an international panel of renowned researchers from academia, government, and industry. Also Available Online This Taylor & Francis encyclopedia is also available through online subscription, offering a variety of extra benefits for researchers, students, and librarians, including: Citation tracking and alerts Active reference linking Saved searches and marked lists HTML and PDF format options Contact Taylor and Francis for more information or to inquire about subscription options and print/online combination packages. US: (Tel) 1.888.318.2367; (E-mail) e-reference@taylorandfrancis.com International: (Tel) +44 (0) 20 7017 6062; (E-mail) online.sales@tandf.co.uk

This book comprises the select proceedings of the ETAEERE 2016 conference. The book aims to shed light on different systems or machines along with their complex operation, behaviors, and linear-nonlinear relationship in different environments. It covers problems of multivariable control systems and provides the necessary background for performing research in the field of control and automation. Aimed at helping readers understand the classical and modern design of different intelligent automated systems, the book presents coverage on the control of linear and nonlinear systems, intelligent systems, stochastic control, knowledge-based systems applications, fault diagnosis and tolerant control, real-time control applications, etc. The contents of this volume will prove useful to researchers and professionals alike.

The Kuala Lumpur International Conference on Biomedical Engineering (BioMed 2006) was held in December 2006 at the Palace of the Golden Horses, Kuala Lumpur, Malaysia. The papers presented at BioMed 2006, and published here, cover such topics as Artificial Intelligence, Biological effects of non-ionising electromagnetic fields, Biomaterials, Biomechanics, Biomedical Sensors, Biomedical Signal Analysis, Biotechnology, Clinical Engineering, Human performance engineering, Imaging, Medical Informatics, Medical

*Instruments and Devices, and many more.*

*Biometric Authentication in Online Learning Environments*

*THE OPPORTUNITIES OF UNCERTAINTIES: FLEXIBILITY AND ADAPTATION NEEDED IN CURRENT CLIMATE*

*Volume II (ICT and Engineering)*

*Advances in Materials Research*

*Volume 2*

*Proceedings of International Conference on Deep Learning, Computing and Intelligence*

*Advances in Systems, Control and Automation*

*This book gathers selected papers presented at the Inventive Communication and Computational Technologies conference (ICICCT 2021), held on 25–26 June 2021 at Gnanamani College of Technology, Tamil Nadu, India. The book covers the topics such as Internet of things, social networks, mobile communications, big data analytics, bio-inspired computing, and cloud computing. The book is exclusively intended for academics and practitioners working to resolve practical issues in this area.*

*Recent developments in the fields of intelligent computing and communication have paved the way for the handling of current and upcoming problems and brought about significant technological advancements. This book presents the proceedings of IConIC 2021, the 4th International Conference on Intelligent Computing, held on 26 and 27 March 2021 in Chennai, India. The principle objective of the annual IConIC conference is to provide an international scientific forum where participants can exchange innovative ideas in relevant fields and interact in depth through discussion with their peer group. The theme of the 2021 conference and this book is ‘Smart Intelligent Computing and Communication Technology’, and the 109 papers included here focus on the technological innovations and trendsetting initiatives in medicine, industry, education and security that are improving and optimizing business and technical processes and enabling inclusive growth. The papers are grouped under 2 headings: Evolution of Computing Intelligence; and Computing and Communication, and cover a broad range of intelligent-computing research and applications. The book provides an overview of the cutting-edge developments and emerging areas of study in the technological fields of intelligent computing, and will be of interest to researchers and practitioners from both academia and industry.*

*Student assessment in online learning is submitted remotely without any face-to-face interaction, and therefore, student authentication is widely seen as one of the major challenges in online examination. Authentication is the process of determining whether someone or something is, in fact, who or what it is declared to be. As the dependence upon computers and computer networks grows, especially within education, the need for authentication has increased. Biometric Authentication in Online Learning Environments provides innovative insights into biometrics as a strategy to mitigate risk and provide authentication, while introducing a framework that provides security to improve e-learning and on-line examination by utilizing biometric-based authentication techniques. This book examines e-learning, security, threats in online exams, security considerations, and biometric technologies, and is designed for IT professionals, higher education administrators, professors, researchers, business professionals, academicians, and libraries seeking topics centered on biometrics as an authentication strategy within educational environments.*

*The book presents the best articles presented by researchers, academicians and industrial experts in the International Conference on “Innovative Design, Analysis and Development Practices in Aerospace and Automotive Engineering”. The book discusses new concept designs, analysis and manufacturing technologies, where more swing is for improved performance through specific and/or multifunctional linguistic design aspects to downsize the system, improve weight to strength*

*ratio, fuel efficiency, better operational capability at room and elevated temperatures, reduced wear and tear, NVH aspects while balancing the challenges of beyond Euro IV/Barat Stage IV emission norms, Greenhouse effects and recyclable materials. The innovative methods discussed in the book will serve as a reference material for educational and research organizations, as well as industry, to take up challenging projects of mutual interest.*

*Challenges and Applications for Implementing Machine Learning in Computer Vision*

*Sustainable Materials and Smart Practices*

*ICDCI 2021*

*NCSMSP-2021*

*ETAEEERE-2016*

*ICASISSET 2020*

The Most Authentic Source Of Information On Higher Education In India The Handbook Of Universities, Deemed Universities, Colleges, Private Universities And Prominent Educational & Research Institutions Provides Much Needed Information On Degree And Diploma Awarding Universities And Institutions Of National Importance That Impart General, Technical And Professional Education In India. Although Another Directory Of Similar Nature Is Available In The Market, The Distinct Feature Of The Present Handbook, That Makes It One Of Its Kind, Is That It Also Includes Entries And Details Of The Private Universities Functioning Across The Country. In This Handbook, The Universities Have Been Listed In An Alphabetical Order. This Facilitates Easy Location Of Their Names. In Addition To The Brief History Of These Universities, The Present Handbook Provides The Names Of Their Vice-Chancellor, Professors And Readers As Well As Their Faculties And Departments. It Also Acquaints The Readers With The Various Courses Of Studies Offered By Each University. It Is Hoped That The Handbook In Its Present Form, Will Prove Immensely Helpful To The Aspiring Students In Choosing The Best Educational Institution For Their Career Enhancement. In Addition, It Will Also Prove Very Useful For The Publishers In Mailing Their Publicity Materials. Even The Suppliers Of Equipment And Services Required By These Educational Institutions Will Find It Highly Valuable.

This book provides a written record of the synergy that already exists among the research communities and represents a solid framework in the advancement of big data and cloud computing disciplines from which new interaction will result in the future. This book is a compendium of the International Conference on Big Data and Cloud Computing (ICBDCC 2021). It includes recent advances in big data analytics, cloud computing, the Internet of nano things, cloud security, data analytics in the cloud, smart cities and grids, etc. This book primarily focuses on the application of knowledge that promotes ideas for solving the problems of society through cutting-edge technologies. The articles featured in this book provide novel ideas that contribute to the growth of world-class research and development. The contents of this book are of interest to researchers and professionals alike.

Modern Treatment Strategies for Marine Pollution provides an overview of assessment tools that identify contaminants in marine water, also discussing the latest technologies for removing these contaminants. Through templated and consistently structured chapters, the author explores the importance of seawater to our marine ecosystems and the devastating effects pollutants are causing. Sections cover the emission of toxic pollutants from industries, wastewater discharge, oil spills from boarding ships,

ballast water emission, abnormal growth of algal blooms, and more. Techniques explored include huge diameter pipelines erected for removing floating debris from seawater, which is denoted as a primary idea for cleaning contaminants. The book includes numerous case studies that demonstrate how these tools can be successfully used. It is an essential read for marine ecologists and oceanographers at the graduate level and above, but is also ideal for those looking to incorporate these techniques into their own work. Presents and discusses advanced technologies used in the treatment of marine water Includes case studies to show what techniques have been successful Provides new information on contamination assessment and analytical protocols for identifying pollutants, which is essential for readers to use in their own work

This book contains best selected research papers presented at ICTCS 2021: Sixth International Conference on Information and Communication Technology for Competitive Strategies. The conference will be held at Jaipur, Rajasthan, India, during December 17–18, 2021. 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. The book is presented in two volumes.

Proceedings of the 1st National Conference on Sustainable Management of Environment and Natural Resource Through Innovation in Science and Technology

Proceedings of ICICCT 2021

Handbook of Research on Aspects and Applications of Incompressible and Compressible Aerodynamics

Vibration and Damping Behavior of Biocomposites

I-DAD 2014, February 22 - 24, 2014

Smart Buildings Digitalization

Machine learning allows for non-conventional and productive answers for issues within various fields, including problems related to visually perceptive computers. Applying these strategies and algorithms to the area of computer vision allows for higher achievement in tasks such as spatial recognition, big data collection, and image processing. There is a need for research that seeks to understand the development and efficiency of current methods that enable machines to see. Challenges and Applications for Implementing Machine Learning in Computer Vision is a collection of innovative research that combines theory and practice on adopting the latest deep learning advancements for machines capable of visual processing. Highlighting a wide range of topics such as video segmentation, object recognition, and 3D modelling, this publication is ideally designed for computer scientists, medical professionals, computer engineers, information technology practitioners, industry experts, scholars, researchers, and students seeking current research on the utilization of evolving computer vision techniques.

Reliability and Probabilistic Safety Assessment in Multi-Unit Nuclear Power Plants presents the risk contributions

from single and multi-unit Nuclear Power Plants to help aggregate the risks that may arise due to applicable hazards and operating states. The book combines the key features of multi-unit risk assessment in one resource, reviewing the practices adopted in various countries around the globe to exemplify the dependencies between units on a site. These dependencies include multi-unit interactions, environmental stresses, the sharing of systems, and the sharing of human resource in a control room, factors which can all introduce an increase potential for heightened accident conditions. This book helps readers systematically identify events and evaluate techniques of possible accident outcomes within multi-units. It serves as a ready reference for PSA analysts in identifying a suitable site and the sharing of resources, while carrying out multi-unit risk assessments to ensure the safety of the public and the environment. It will also be valuable for nuclear researchers, designers and regulators of nuclear power plants, nuclear regulatory agencies, PSA engineers and practicing safety professionals. Provides a framework for nuclear and PSA researchers and professionals on the design and operation of multi-unit risk assessments Reviews practices adopted in various regions around the globe to analyze dependencies between units Includes modeling techniques of inter-connections and shared resources, as well as risk aggregation

This book is a compendium of the proceedings of the International Conference on Big-Data and Cloud Computing. The papers discuss the recent advances in the areas of big data analytics, data analytics in cloud, smart cities and grid, etc. This volume primarily focuses on the application of knowledge which promotes ideas for solving problems of the society through cutting-edge big-data technologies. The essays featured in this proceeding provide novel ideas that contribute for the growth of world class research and development. It will be useful to researchers in the area of advanced engineering sciences.

Fiber-reinforced polymer composites exhibit better damping characteristics than conventional metals due to the viscoelastic nature of the polymers. There has been a growing interest among research communities and industries in the use of natural fibers as reinforcements in structural and semi-structural applications, given their environmental advantages. Knowledge of the vibration and damping behavior of biocomposites is essential for engineers and scientists who work in the field of composite materials. *Vibration and Damping Behavior of Biocomposites* brings together the latest research developments in vibration and viscoelastic behavior of composites filled with different natural fibers. Features: Reviews the effect of various types of reinforcements on free vibration behavior Emphasizes aging effects, influence of compatibilizers, and hybrid fiber reinforcement Explores the influence of resin type on viscoelastic properties Covers the use of computational modeling to analyze dynamic behavior and viscoelastic properties Discusses viscoelastic damping characterization through dynamic mechanical analysis. This compilation will greatly benefit academics, researchers, advanced students,

and practicing engineers in materials and mechanical engineering and related fields who work with biocomposites. Editors Dr. Senthil Muthu Kumar Thiagamani, Kalasalinagam Academy of Research and Education (KARE), India Dr. Md Enamul Hoque, Military Institute of Science and Technology (MIST), Bangladesh Dr. Senthilkumar Krishnasamy, King Mongkut's University of Technology North Bangkok KMUTNB, Thailand Dr. Chandrasekar Muthukumar, Hindustan Institute of Technology & Science (HITS), India Dr. Suchart Siengchin, King Mongkut's University of Technology North Bangkok KMUTNB, Thailand

Modern Treatment Strategies for Marine Pollution

Disruptive Technologies for Big Data and Cloud Applications

Proceedings of ICBDDCC 2021

Materials, Design, and Manufacturing for Sustainable Environment

Select Proceedings of ICAMR 2019

Artificial Intelligence and Evolutionary Computations in Engineering Systems

*This book discusses various artificial intelligence and machine learning applications concerning smart buildings. It includes how renewable energy sources are integrated into smart buildings using suitable power electronic devices. The deployment of advanced technologies with monitoring, protection, and energy management features is included, along with a case study on automation. Overall, the focus is on architecture and related applications, such as power distribution, microgrids, photovoltaic systems, and renewable energy aspects. The chapters define smart building concepts and their related benefits.*

*FEATURES Discusses various aspects of the role of the Internet of things (IoT) and machine learning in smart buildings Explains pertinent system architecture and focuses on power generation and distribution Covers power-enabling technologies for smart cities Includes photovoltaic system-integrated smart buildings This book is aimed at graduate students, researchers, and professionals in building systems engineering, architectural engineering, and electrical engineering.*

*This book presents the proceedings of the First National Conference on "Sustainable Management of Environment & Natural Resource through Innovation in Science and Technology" (SMTST2020). The book highlights the latest development and innovations in the fields of sustainability, natural resource management, ecology and its environmental fields, geosciences and geology, atmospheric sciences, sustainability, climate change,*

and extreme weather, global warming, and global change, the effect of climate change on the ecosystem, environment, and pollution, as well as putting a strong emphasis on the multidisciplinary studies.

Over the years, many successful attempts have been chapters in this part describe the well-known processes made to describe the art and science of crystal growth, such as Czochralski, Kyropoulos, Bridgman, and o- and many review articles, monographs, symposium v- ing zone, and focus speci cally on recent advances in umes, and handbooks have been published to present improving these methodologies such as application of comprehensive reviews of the advances made in this magnetic elds, orientation of the growth axis, intro- eld. These publications are testament to the grow- duction of a pedestal, and shaped growth. They also ing interest in both bulk and thin- lm crystals because cover a wide range of materials from silicon and III-V of their electronic, optical, mechanical, microstructural, compounds to oxides and uorides. and other properties, and their diverse scienti c and The third part, Part C of the book, focuses on - technological applications. Indeed, most modern ad- lution growth. The various aspects of hydrothermal vances in semiconductor and optical devices would growth are discussed in two chapters, while three other not have been possible without the development of chapters present an overview of the nonlinear and laser many elemental, binary, ternary, and other compound crystals, KTP and KDP. The knowledge on the effect of crystals of varying properties and large sizes. The gravity on solution growth is presented through a c- literature devoted to basic understanding of growth parison of growth on Earth versus in a microgravity mechanisms, defect formation, and growth processes environment.

ICIEMS 2015 is the conference aim is to provide a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in Engineering Technology, Industrial Engineering, Application Level Security and Management Science. This conference provides opportunities for the delegates to exchange new ideas and application experiences face to face, to establish business or research relations and to find global partners for future collaboration.

*The Indian Textile Journal*

*IoT and Energy Efficient Smart Buildings Architecture and Applications*

*Recent Trends in Mechanical Engineering*

*Biomed 2006, 11-14 December 2006, Kuala Lumpur, Malaysia*

*Advances in Environment Engineering and Management*

*ICDAM 2021, Volume 1*

IOTA is a novel cryptocurrency that uses distributed ledger technology based on directed acyclic graph data structure. Security of cryptocurrencies ought to be scrutinized in order to acquire esteemed security, attain trust, and accomplish indelible adoption. Although IOTA prefers resilient security controls, IOTA security is not yet well explored. Among all the propounded IOTA vulnerabilities that have been identified, we pragmatically exploit replay attack against IOTA. It further analyze the attack to perceive its impact. Attack methodology and proof of concept for the replay attack is presented. Our proposed exploitation methodology is based upon address reuse, while IOTA in default mode does not reuse addresses. Distrust and privation of balance can be some of the severe impacts of this vulnerability. This system introduces the Crypto Terminal, a new open device for securing blockchain wallets.

This book gathers selected papers presented at the International Conference on Deep Learning, Computing and Intelligence (ICDCI 2021), organized by Department of Information Technology, SRM Institute of Science and Technology, Chennai, India, during January 7-8, 2021. The conference is sponsored by Scheme for Promotion of Academic and Research Collaboration (SPARC) in association with University of California, UC Davis and SRM Institute of Science and Technology. The book presents original research in the field of deep learning algorithms and medical imaging systems, focusing to address issues and developments in recent approaches, algorithms, mechanisms, and developments in medical imaging.

To overcome the constraints of 5G for supporting new challenges, 6G wireless systems must be developed with new and attractive features. These systems are expected to increase performance and maximize quality of service several folds more than 5G along with other exciting features. However, 6G is still in its infancy and must be explored. The Handbook of Research on Design, Deployment, Automation, and Testing Strategies for 6G Mobile Core Network discusses the technological feats used in the new 6G wireless systems. It discusses the design, automation, and uses for industry as well as testing strategies. Covering topics such as 6G architecture, smart healthcare, and wireless communication, this major reference work is an excellent resource for computer scientists, engineers, students and professors in higher education, researchers, and academicians.

This is the latest (2021) edition of Coimbatore South Industrial Directory. Based on the details collected till December 2020. All types of Industries (Small, Medium, Large, Tiny, Micro) are covered and listed with their Phone Numbers, Mobile Numbers, Address, Contact Person, Products sold or Service Offered etc. Industries and Suppliers located in the southern part of Coimbatore, namely, SIDCO Industrial Estates of Kurichi & Malumichampatti, Eachanari, Seerapalayam, Bodipalayam, Madukkarai, Podanur, Kuniyamuthur are listed. More than 3,500 Industries producing 1,200+ products are listed. Wide range of Job Machining Capacities in CNC Machinery, Steel Castings, Forgings, Heat Treatment, Surface Finishing etc are covered. An ideal guide to find prospects and promote Industries & Businesses in these areas. This COIMBATORE SOUTH Directory is also available as printed edition. Available through selected Mobile Phone Shops & Book Sellers.

COIMBATORE SOUTH - 2021

3rd Kuala Lumpur International Conference on Biomedical Engineering 2006

Select Proceedings of ICIME 2019

Innovative Design, Analysis and Development Practices in Aerospace and Automotive Engineering

Celfon 5G+ Industrial Directory

Handbook of Universities

This book presents recent research on sustainable building materials and their various applications. Topics include such items as fiber reinforced concrete, the use of mineral admixtures, self-sensing cement composites, the use of nanomaterials for structural health monitoring and the production of geopolymers. Keywords: Light Transmitting Concrete, Self-Compacting Concrete, Light-Weight Concrete, Polymer Concrete, Porous Concrete, Eco-Friendly Building Material, Cement Composite, Geopolymer Composites, Sustainable Bricks, Cement, Sisal Fiber, Glass Fiber, Nanomaterials, Metakaoline, Fly Ash, Silica Fume, Rice Husk Ash, Oyster Shells, Bitumen, Sugarcane Bagasse Ash, Herbocrete, Waste Foundry Sand, Swell Pressure of Clay, Quarry Dust, Sensors, Topology Optimization, Soil Stabilization.

This book comprises the select proceedings of the International Conference on Materials, Design and Manufacturing for Sustainable Environment (ICMDMSE 2020). The primary focus is on emerging materials and cutting-edge manufacturing technologies for sustainable environment. The book covers a wide range of topics such as advanced materials, vibration, tribology, finite element method (FEM), heat transfer, fluid mechanics, energy engineering, additive manufacturing, robotics and automation, automobile engineering, industry 4.0, MEMS and nanotechnology, optimization techniques, condition monitoring, and new paradigms in technology management. Contents of this book will be useful to students, researchers, and practitioners alike.

Artificial Intelligence and Evolutionary Computations in Engineering Systems  
Springer Nature

This book comprises select peer-reviewed proceedings from the International Conference on Innovations in Mechanical Engineering (ICIME 2019). The volume covers current research in almost all major areas of mechanical engineering, and is divided into six parts: (i)

automobile and thermal engineering, (ii) design and optimization, (iii) production and industrial engineering, (iv) material science and metallurgy, (v) nanoscience and nanotechnology, and (vi) renewable energy sources and CAD/CAM/CFD. The topics provide insights into different aspects of designing, modeling, manufacturing, optimizing, and processing with wide ranging applications. The contents of this book can be of interest to researchers and professionals alike.

Encyclopedia of Iron, Steel, and Their Alloys (Online Version)

Autonomous and Connected Heavy Vehicle Technology

Proceedings of ICBDC 2019

Intelligent Systems and Computer Technology

Reliability and Probabilistic Safety Assessment in Multi-Unit Nuclear Power Plants

Handbook of Research on Design, Deployment, Automation, and Testing Strategies for 6G

Mobile Core Network

***Aerodynamics is a science that improves the ability to understand theoretical basics and apply fundamental physics in real-life problems. The study of the motion of air, both externally over an airplane wing and internally over a scramjet engine intake, has acknowledged the significance of studying both incompressible and compressible flow aerodynamics. The Handbook of Research on Aspects and Applications of Incompressible and Compressible Aerodynamics discusses all aspects of aerodynamics from application to theory. It further presents the equations and mathematical models used to describe and characterize flow fields as well as their thermodynamic aspects and applications. Covering topics such as airplane configurations, hypersonic vehicles, and the parametric effect of roughness, this premier reference source is an essential resource for engineers, scientists, students and educators of higher education, military experts, libraries, government officials, researchers, and academicians. Recent developments in soft-computation techniques have paved the way for handling huge volumes of data, thereby bringing about significant changes and technological advancements. This book presents the proceedings of the 3rd International Conference on Emerging Current Trends in Computing & Expert Technology (COMET 2020), held at Panimalar Engineering College, Chennai, India on 6 and 7 March 2020. The aim of the book is to disseminate cutting-edge developments taking place in the technological fields of intelligent systems and computer technology, thereby assisting researchers and practitioners from both institutions and industry to upgrade their knowledge of the latest developments and emerging areas of study. It focuses on technological innovations and trendsetting initiatives to improve***

*business values, optimize business processes and enable inclusive growth for corporates, industries and education alike. The book is divided into two sections; 'Next Generation Soft Computing' is a platform for scientists, researchers, practitioners and academics to present and discuss their most recent innovations, trends and concerns, as well as the practical challenges encountered in the field. The second section, 'Evolutionary Networking and Communications' focuses on various aspects of 5G communications systems and networking, including cloud and virtualization solutions, management technologies, and vertical application areas. It brings together the latest technologies from all over the world, and also provides an excellent international forum for the sharing of knowledge and results from theory, methodology and applications in networking and communications. The book will be of interest to all those working in the fields of intelligent systems and computer technology.*

*This book comprises select peer-reviewed proceedings of the International Conference on Advances in Materials Research (ICAMR 2019). The contents cover latest research in materials and their applications relevant to composites, metals, alloys, polymers, energy and phase change. The indigenous properties of materials including mechanical, electrical, thermal, optical, chemical and biological functions are discussed. The book also elaborates the properties and performance enhancement and/or deterioration in order of the modifications in atomic particles and structure. This book will be useful for both students and professionals interested in the development and applications of advanced materials.*

*Autonomous and Connected Heavy Vehicle Technology presents the fundamentals, definitions, technologies, standards and future developments of autonomous and connected heavy vehicles. This book provides insights into various issues pertaining to heavy vehicle technology and helps users develop solutions towards autonomous, connected, cognitive solutions through the convergence of Big Data, IoT, cloud computing and cognition analysis. Various physical, cyber-physical and computational key points related to connected vehicles are covered, along with concepts such as edge computing, dynamic resource optimization, engineering process, methodology and future directions. The book also contains a wide range of case studies that help to identify research problems and an analysis of the issues and synthesis solutions. This essential resource for graduate-level students from different engineering disciplines such as automotive and mechanical engineering, computer science, data science and business analytics combines both basic concepts and advanced level content from technical experts. Covers state-of-the-art developments and research in vehicle sensor technology, vehicle communication technology, convergence with emerging technologies, and vehicle software and hardware integration Addresses challenges such as optimization, real-time control systems for distance and steering mechanism, and cognitive and predictive analysis Provides complete product development, commercial deployment, technological and performing costs and scaling needs*

*Springer Handbook of Crystal Growth*

*Information and Communication Technology for Competitive Strategies (ICTCS 2021)*

*Proceedings of the International Conference on Information Engineering, Management and Security 2015*

*ICIEMS 2015*

*Innovative Design, Analysis and Development Practices in Aerospace and Automotive Engineering (I-DAD 2018)*

*Basic Electrical & Electronics Engineering*