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Innovations in Computing Sciences and Software Engineering includes a set of rigorously reviewed world-class manuscripts addressing and detailing state-of-the-art research projects in the areas of Computer Science, Software Engineering, Computer Engineering, and Systems Engineering and Sciences. Topics Covered: •Image and Pattern Recognition: Compression, Image processing, Signal Processing Architectures, Signal Processing for Communication, Signal Processing Implementation, Speech Compression, and Video Coding Architectures. •Languages and Systems: Algorithms, Databases, Embedded Systems and Applications, File Systems and I/O, Geographical Information Systems, Kernel and OS Structures, Knowledge Based Systems, Modeling and Simulation, Object Based Software Engineering, Programming Languages, and Programming Models and tools. •Parallel Processing: Distributed Scheduling, Multiprocessing, Real-time Systems, Simulation Modeling and Development, and Web Applications. •Signal and Image Processing: Content Based Video Retrieval, Character Recognition, Incremental Learning for Speech Recognition, Signal Processing Theory and Methods, and Vision-based Monitoring Systems. •Software and Systems: Activity-Based Software Estimation, Algorithms, Genetic Algorithms, Information Systems Security, Programming Languages, Software Protection Techniques, Software Protection Techniques, and User Interfaces. •Distributed Processing: Asynchronous Message Passing System, Heterogeneous Software Environments, Mobile Ad Hoc Networks, Resource Allocation, and Sensor Networks. •New trends in computing: Computers for People of Special Needs, Fuzzy Inference, Human Computer Interaction, Incremental Learning, Internet-based Computing Models, Machine Intelligence, Natural Language.

Entrepreneurship, 5th Edition helps aspiring entrepreneurs understand the process of starting a new venture and appreciate the vital role of entrepreneurship in the economy. This accessible textbook explains the steps involved in starting a new company, and offers insights on engaging with startups as investors, bankers, accountants, lawyers, vendors, customers, and employees. Delving into the real-world trials and tribulations of entrepreneurship, the text covers every stage of the entrepreneurial process, from searching for an opportunity and molding it into an attractive product or service, to launching, growing, and eventually harvesting the new venture. The fully revised and updated fifth edition integrates core concepts of entrepreneurship and practical case studies—enabling students to develop an inclusive perspective on how businesses are born, grow, and succeed or fail. The authors explore the entrepreneurial competitiveness of nations throughout the world, describe the critical factors for starting a new enterprise and building it into a successful business, and demonstrate how to build a workable business model. Clear, straightforward chapters cover each essential area of entrepreneurship, including marketing, strategy, team building, financial projections, business planning, and more.

This volume brings together selected contributed papers presented at the International Conference of Computational Methods in Science and Engineering (ICCMSE 2006), held in Chania, Greece, October 2006. The conference aims to bring together computational scientists from several disciplines in order to share methods and ideas. The ICCMSE is unique in its kind. It regroups original contributions from all fields of the traditional Sciences, Mathematics, Physics, Chemistry, Biology, Medicine and all branches of Engineering. It would be perhaps more appropriate to define the ICCMSE as a conference on computational science and its applications to science and engineering. Topics of general interest are: Computational Mathematics, Theoretical Physics and Theoretical Chemistry, Computational Engineering and Mechanics, Computational Biology and Medicine, Computational Geosciences and Meteorology, Computational Economics and Finance, Scientific Computation, High Performance Computing, Parallel and Distributed Computing, Visualization, Problem Solving Environments, Numerical Algorithms, Modelling and Simulation of Complex System, Web-based Simulation and Computing, Grid-based Simulation and Computing, Fuzzy Logic, Hybrid Computational Methods, Data Mining, Information Retrieval and Virtual Reality, Reliable Computing, Image Processing, Computational Science and Education etc. More than 800 extended abstracts have been submitted for consideration for presentation in ICCMSE 2005. From these 500 have been selected after international peer review by at least two independent reviewers.

This book constitutes the refereed proceedings of the First Asian Semantic Web Conference, ASWC 2006, held in Beijing, China, in September 2006. The 36 revised full papers and 36 revised short papers presented together with three invited contributions were carefully reviewed and selected from 208 full paper submissions. The papers are organized in topical sections.

A New Deal for an Effective European Research Policy
The Semantic Web – ASWC 2006
Technical Universities

Recent Advances in Computer Science and Information Engineering
Innovations and Advanced Techniques in Computer and Information Sciences and Engineering
Smart Sensors for Industrial Applications

This book presents a sample of theoretical and practical advances in symmetry in multidisciplinary engineering applications. It covers several applications, such as mechanical analysis of tunnel lining, prediction methods for the ring damper used in gears, calibration methods for manipulators, design methods for wheel configurations of mobile robots, analysis of elastic plastic damaged zones, 3D printed corneal models, analysis of multibody system dynamic networks, structural elements in architecture, railway transportation, transportation of hazardous materials, cable-driven mechanisms, and image processing. The contributions included in this book describe the state-of-the-art advances in this field and demonstrate the possibilities of the study of symmetry in multidisciplinary applications in the field of engineering.

This book includes a set of rigorously reviewed world-class manuscripts addressing and detailing state-of-the-art research projects in the areas of Computer Science, Informatics, and Systems Sciences, and Engineering. It includes selected papers from the conference proceedings of the Ninth International Joint Conferences on Computer, Information, and Systems Sciences, and Engineering (CISSE 2013). Coverage includes topics in: Industrial Electronics, Technology & Automation, Telecommunications and Networking, Systems, Computing Sciences and Software Engineering, Engineering Education, Instructional Technology, Assessment, and E-learning. • Provides the latest in a series of books growing out of the International Joint Conferences on Computer, Information, and Systems Sciences, and Engineering; • Includes chapters in the most advanced areas of Computing, Informatics, Systems Sciences, and Engineering; • Accessible to a wide range of readership, including professors, researchers, practitioners and students.

Advances in Computational Methods in Sciences and Engineering 2005 (2 vols)Selected Papers from the International Conference of Computational Methods in Sciences and Engineering (ICCMSE 2005)CRC Press

Thermal processing remains one of the most important processes in the food industry. Now in its second edition, Thermal Food Processing: New Technologies and Quality Issues continues to explore the latest developments in the field. Assembling the work of a worldwide panel of experts, this volume highlights topics vital to the food industry today an

Institutional Innovation and High-Tech Competition in Western Europe

Innovations and Advanced Techniques in Systems, Computing Sciences and Software Engineering

Complexity, Confrontation, and Compromise

Proceedings of the 2nd International Conference on Engineering Sciences and Technologies, 29 June - 1 July 2016, High Tatras Mountains, Tatranské Matliare, Slovak Republic

The Professional Journal of the Earthquake Engineering Research Institute

IAENG Transactions on Engineering Sciences

Issue 149564 October 20 2005

Advanced Techniques in Computing Sciences and Software Engineering includes a set of rigorously reviewed world-class manuscripts addressing and detailing state-of-the-art research projects in the areas of Computer Science, Software Engineering, Computer Engineering, and Systems Engineering and Sciences. Advanced Techniques in Computing Sciences and Software Engineering includes selected papers from the conference proceedings of the International Conference on Systems, Computing Sciences and Software Engineering (SCSS 2008) which was part of the International Joint Conferences on Computer, Information and Systems Sciences and Engineering (CISSE 2008).

This book includes a set of rigorously reviewed world-class manuscripts addressing and detailing state-of-the-art research projects in the areas of Computing Sciences, Software Engineering and Systems. The book presents selected papers from the conference proceedings of the International Conference on Systems, Computing Sciences and Software Engineering (SCSS 2006). All aspects of the conference were managed on-line.

This third volume in a four-volume set offers new theories and applications for the diagnosis and treatment of mental disorders. Having laid the groundwork in the first two volumes, the authors now embark on significant, real-life scenarios that apply their philosophy to mental disorder treatments. The goal of the project is to take the industry toward sustainability, not just in terms of the chemical engineering used to create medicines, but also environmentally, economically, and personally. Their unique approach uses a more holistic and philosophically cohesive method for treating mental disorders, making the industry "greener" and the patient healthier. The four volumes in "The Greening of Pharmaceutical Engineering" are: Volume 1: Practice, Analysis, and Methodology Volume 2: Theories and Solutions Volume 3: Applications for Mental Disorder Treatments Volume 4: Applications for Physical Disorder Treatments This ground-breaking set of books is a unique and state-of-the-art study that only appears here, within these pages. A fascinating study for the engineer, scientist, and pharmacist working in the pharmaceutical industry and interested in sustainability, it is also a valuable textbook for students and faculty studying these subjects.

Sensor technologies are a rapidly growing area of interest in science and product design, embracing developments in electronics, photonics, mechanics, chemistry, and biology. Their presence is widespread in everyday life, where they are used to sense sound, movement, and optical or magnetic signals. The demand for portable and lightweight sensors is relentless in several industries, from consumer electronics to biomedical engineering to the military. Smart Sensors for Industrial Applications brings together the latest research in smart sensors technology and exposes the reader to myriad applications that this technology has enabled. Organized into five parts, the book explores: Photonics and optoelectronics sensors, including developments in optical fibers, Brillouin detection, and Doppler effect analysis. Chapters also look at key applications such as oxygen detection, directional discrimination, and optical sensing. Infrared and thermal sensors, such as Bragg gratings, thin films, and microbolometers. Contributors also cover temperature measurements in industrial conditions, including sensing inside explosions. Magnetic and inductive sensors, including magnetometers, inductive coupling, and ferro-fluidics. The book also discusses magnetic field and inductive current measurements in various industrial conditions, such as on airplanes. Sound and ultrasound sensors, including underwater acoustic modem, vibrational spectroscopy, and photoacoustics. Piezoresistive, wireless, and electrical sensors, with applications in health monitoring, agrofood, and other industries. Featuring contributions by experts from around the world, this book offers a comprehensive review of the groundbreaking technologies and the latest applications and trends in the field of smart sensors.

Intelligent Robotics and Applications

Cumulative List of Organizations Described in Section 170 (c) of the Internal Revenue Code of 1954

Recent Advances in Nanofabrication Techniques and Applications

10th International Conference, ICIRA 2017, Wuhan, China, August 16-18, 2017, Proceedings, Part II

US Black Engineer & IT

Symmetry in Engineering Sciences II

Science & Engineering Indicators

As synthetic biology transforms living matter into a medium for making, what is the role of design and its associated values? Synthetic biology manipulates the stuff of life. For synthetic biologists, living matter is programmable material. In search of carbon-neutral fuels, sustainable manufacturing techniques, and innovative drugs, these researchers aim to redesign existing organisms and even construct completely novel biological entities. Some synthetic biologists see themselves as designers, inventing new products and applications. But if biology is viewed as a malleable, engineerable, designable medium, what is the role of design and how will its values apply? In this book, synthetic biologists, artists, designers, and social scientists investigate synthetic biology and design. After chapters that introduce the science and set the terms of the discussion, the book follows six boundary-crossing collaborations between artists and designers and synthetic biologists from around the world, helping us understand what it might mean to 'design nature.' These collaborations have resulted in biological computers that calculate form; speculative packaging that builds its own contents; algae that feeds on circuit boards; and a sampling of human cheeses. They raise intriguing questions about the scientific process, the delegation of creativity, our relationship to designed matter, and, the importance of critical engagement. Should these projects be considered art, design, synthetic biology, or something else altogether? Synthetic biology is driven by its potential: some of these projects are fictions, beyond the current capabilities of the technology. Yet even as fictions, they help illuminate, question, and even shape the future of the field.

Regulation shapes all aspects of America's fragmented health care industry, from the flow of dollars to the communication between physicians and patients. It is the engine that translates public policy into action. While the health and lives of patients, as well as almost one-sixth of the national economy depend on its effectiveness, health care regulation in America is bewilderingly complex. Government agencies at the federal, state, and local levels direct portions of the industry, but hundreds of private organizations do so as well. Some of these overseers compete with one another, some conflict, and others collaborate. Their interaction is as important to the provision of health care as are the laws and rules they implement. Health Care Regulation in America is a guide to this regulatory maze. It succinctly recaps the past and present conflicts that have guided the oversight of each industry segment over the past hundred years and explains the structure of regulation today. To make the system comprehensible, this book also presents the sweep of regulatory policy in the context of the interests, values, goals, and issues that guide it. Chapters cover the process of regulation and each key area of regulatory focus - professionals, institutions, financing arrangements, drugs and devices, public health, business relationships, and research. In a uniquely American way, the system thrives on confrontation between competing interests but survives by engendering compromise. Robert Field shows that health care regulation is an inexorable force that nurtures as well as restricts the enterprise of American health care. For the student, practitioner, executive, policy analyst, or concerned citizen, this book is an invaluable guide to the policy, politics, and practice of an industry that directly touches us all.

These are the proceedings of the International Conference on Engineering Science and Production Management, 16th 17th April 2015, Tatransktrba, High Tatras Mountains - Slovak Republic . The proceedings contain articles focusing on:- Production Management, Logistics- Industrial development, sustainable production- Planning, management and pr

This book argues that a New Deal for research in Europe is needed. This New Deal would involve the mobilisation of policy actors across all levels--regional, national and European--and their commitment to develop a more effective research system based on actions where they have the greatest impact. The book presents, from a viewpoint inside the European Commission, the nuts and bolts of how EU research policy is actually designed. It also provides a comprehensive analysis, on the basis of factual evidence, not only of the positive impacts of European research, but of the various criticisms that have been made of the Framework Programme.

Thermal Food Processing

The Design and Impacts of the 7th Framework Programme

Image Correlation for Shape, Motion and Deformation Measurements

Investigating Synthetic Biology's Designs on Nature

First Asian Semantic Web Conference, Beijing, China, September 3-7, 2006, Proceedings

Proceedings of IETA 2005, TeNe 2005 and EIAE 2005

Synthetic Aesthetics

This publication comprises the presentations made at the NATO Advanced Research Workshop held in Sinaia, Romania 9 - 11 October, 2006. The contributions represent a unique cross section of issues and challenges related to contaminated site management. These range from low cost solutions to petroleum contaminated sites to advances in biological treatment methods. The publication is meant to foster links between groups facing challenges cleaning up contaminated sites.

Innovations and Advanced Techniques in Systems, Computing Sciences and Software Engineering includes a set of rigorously reviewed world-class manuscripts addressing and detailing state-of-the-art research projects in the areas of Computer Science, Software Engineering, Computer Engineering, and Systems Engineering and Sciences. Innovations and Advanced Techniques in Systems, Computing Sciences and Software Engineering includes selected papers from the conference proceedings of the International Conference on Systems, Computing Sciences and Software Engineering (SCSS 2007) which was part of the International Joint Conferences on Computer, Information and Systems Sciences and Engineering (CISSE 2007).

Organizational Behaviour As A Management Discipline Is A Fascinating Subject And Is Becoming Increasingly Important As People With Diverse Backgrounds And Cultural Values Have To Work Together Effectively And Efficiently.

This Book Addresses All The Issues That Come In To Play In An Organization In Today S Global Economy. It Has A Novel Orientation And Its Primary Aim Is To Let Practitioners And Students Know The Latest And Best Trends In Organizational Behaviour. This Book Prescribes Methods To Manage Employees And Suggests That The Management Takes Responsibility For Everything That Might Adversely Affect An Employee S Capacity To Work Creatively And Intelligently, Irrespective Of The Place Inside The Organization Or Outside It. The Focus Of The Book Is On Holistic Development Of The Individual. Peeping Into The Human Mind, It Shows How Organizations Can Tap The Passions And Fears Of Their Employees To Make Them More Creative And Productive. The Book Prescribes A Democratic And Inclusive Management Sty. A Special Feature Of This Book Is That There Is An Innovative Integration Of Chapter Objectives And Summaries Leading To Analysis Through Caselets. Every Point In The Objectives Has Corresponding Text And Is Supplemented By A Case. Going Through This Book Will Be A Personally Fulfilling Experience And Maybe It Succeeds To Make The Readers Better Human Beings, Better Teachers, Better Friends And May Be Even Better Managers.

This volume brings together selected contributed papers presented at the International Conference of Computational Methods in Science and Engineering (ICCMSE 2005), held in Greece, 21 aEURO" 26 October 2005. The conference aims to bring together computational scientists from several disciplines in order to share methods and ideas. The ICCMSE is unique in its kind. It regroups original contributions from all fields of the traditional Sciences, Mathematics, Physics, Chemistry, Biology, Medicine and all branches of Engineering. It would be perhaps more appropriate to define the ICCMSE as a conference on computational science and its applications to science and engineering. Topics of general interest are: Computational Mathematics, Theoretical Physics and Theoretical Chemistry, Computational Engineering and Mechanics, Computational Biology and Medicine, Computational Geosciences and Meteorology, Computational Economics and Finance, Scientific Computation, High Performance Computing, Parallel and Distributed Computing, Visualization, Problem Solving Environments, Numerical Algorithms, Modelling and Simulation of Complex System, Web-based Simulation and Computing, Grid-based Simulation and Computing, Fuzzy Logic, Hybrid Computational Methods, Data Mining, Information Retrieval and Virtual Reality, Reliable Computing, Image Processing, Computational Science and Education etc. More than 800 extended abstracts have been submitted for consideration for presentation in ICCMSE 2005. From these 500 have been selected after international peer review by at least two independent reviewers.

Advances in Computational Methods in Sciences and Engineering 2005 (2 vols)

Innovations in Computing Sciences and Software Engineering

New Technologies and Quality Issues, Second Edition

How Hidden Fractures Still Threaten the World Economy

Synthesis and Characterization, Processing and Specific Applications

Advances in Computer, Information, and Systems Sciences, and Engineering

Daily Graphic

At the close of the twentieth century, Denmark, Finland, and Ireland emerged as unlikely centers for high-tech competition. In *When Small States Make Big Leaps*, Darius Ornston reveals how these historically low-tech countries managed to positions in new industries such as biotechnology, software, and telecommunications equipment. In each case, countries used institutions that are commonly perceived to delay restructuring to accelerate the redistribution of resources to and industries. Ornston draws on interviews with hundreds of politicians, policymakers, and industry representatives to identify two different patterns of institutional innovation and economic restructuring. Irish policymakers worked with representatives to contain costs and expand market competition. Denmark and Finland adopted a different strategy, converting an established tradition of private-public and industry-labor cooperation to invest in high-quality inputs such as research. Both strategies facilitated movement into new high-tech industries but with distinctive political and economic consequences. In explaining how previously slow-moving states entered dynamic new industries, Ornston identifies a strategies by which countries can respond to disruptive challenges such as economic internationalization, rapid technological innovation, and the shift to services.

These are the proceedings of the 2nd International Conference on Engineering Sciences and Technologies (ESaT 2016), held from 29th of June until the 1st of July 2016 in the scenic High Tatras Mountains, Tatranské Matliare, Slovak Republic. The successful implementation and excellent feedback of the first international conference ESaT 2015, ESaT 2016 was organized under the auspices of the Faculty of Civil Engineering, Technical University of Košice, Slovak Republic in collaboration with the University of Miskolc, Hungary. The conference focused on a wide spectrum of topics and subject areas in civil engineering sciences. The proceedings bringing new and original advances and trends in various fields of engineering sciences and that accost a wide range of academics, scientists, researchers and professionals from universities and practice. The authors of the articles originate from different countries around the world guaranteeing the importance, topicality, quality and presented results.

Nanotechnology has experienced a rapid growth in the past decade, largely owing to the rapid advances in nanofabrication techniques employed to fabricate nano-devices. Nanofabrication can be divided into two categories: "bottom up" ap

chemical synthesis or self assembly, and "top down" approach using nanolithography, thin film deposition and etching techniques. Both topics are covered, though with a focus on the second category. This book contains twenty nine chapters provide the fundamentals and recent advances of nanofabrication techniques, as well as its device applications. Most chapters focus on in-depth studies of a particular research field, and are thus targeted for researchers, though some chapters basics of lithographic techniques accessible for upper year undergraduate students. Divided into five parts, this book covers electron beam, focused ion beam, nanoimprint, deep and extreme UV, X-ray, scanning probe, interference, two-photon nanosphere lithography.

"There's Plenty of Room at the Bottom" ? this was the title of the lecture Prof. Richard Feynman delivered at California Institute of Technology on December 29, 1959 at the American Physical Society meeting. He considered the possibility of matter on an atomic scale. Indeed, the design and controllable synthesis of nanomaterials have attracted much attention because of their distinctive geometries and novel physical and chemical properties. For the last two decades nano-structures in the form of nanofibers, nanoparticles, nanotubes, nanoclays, nanorods, nanodisks, nanoribbons, nanowhiskers etc. have been investigated with increased interest due to their enormous advantages, such as large surface area and active surface. Among all nanostructures, nanofibers have attracted tremendous interest in nanotechnology and biomedical engineering owing to the ease of controllable production processes, low pore size and superior mechanical properties for a range of diverse areas such as catalysis, sensors, medicine, pharmacy, drug delivery, tissue engineering, filtration, textile, adhesive, aerospace, capacitors, transistors, battery separators, energy storage, fuel cells, information technology, photonic structures, panel displays, just to mention a few. Nanofibers are continuous filaments of generally less than about 1000 nm diameters. Nanofibers of a variety of cellulose and non-cellulose based materials can be produced by a variety of techniques such as separation, self assembly, drawing, melt fibrillation, template synthesis, electro-spinning, and solution spinning. They reduce the handling problems mostly associated with the nanoparticles. Nanoparticles can agglomerate and form clusters, while nanofibers form a mesh that stays intact even after regeneration. The present book is a result of contributions of experts from international scientific community working in different areas and types of nanofibers. The book thoroughly covers different varieties of nanofibers. It provides an up-to-date insightful coverage to the synthesis, characterization, functional properties and potential device applications of nanofibers in specialized areas. We hope that this book will prove to be a thought provoking and will serve as a valuable reference for researchers working in different areas of nanofibers. Special thanks goes to the authors for their valuable contributions.

Advances in Ceramic Armor XI

Advanced Techniques in Computing Sciences and Software Engineering

6 Opportunities for Becoming a Can-Do Nation Once Again

Entrepreneurship

Production Management and Engineering Sciences

Biomaterials Fabrication and Processing Handbook

Organizational Behaviour: A Modern Approach

The Ceramic Engineering and Science Proceeding has been published by The American Ceramic Society since 1980. This series contains a collection of papers dealing with issues in both traditional ceramics (i.e., glass, whitewares, refractories, and porcelain enamel) and advanced ceramics. Topics covered in the area of advanced ceramic include bioceramics, nanomaterials, composites, solid oxide fuel cells, mechanical properties and structural design, advanced ceramic coatings, ceramic armor, porous ceramics, and more.

The three volume set LNAI 10462, LNAI 10463, and LNAI 10464 constitutes the refereed proceedings of the 10th International Conference on Intelligent Robotics and Applications, ICIRA 2017, held in Wuhan, China, in August 2017. The 235 papers presented in the three volumes were carefully reviewed and selected from 310 submissions. The papers in this second volume of the set are organized in topical sections on industrial robot and robot manufacturing; mechanism and parallel robotics; machine and robot vision; robot grasping and control.

Image Correlation for Shape, Motion and Deformation Measurements provides a comprehensive overview of data extraction through image analysis. Readers will find and in-depth look into various single- and multi-camera models (2D-DIC and 3D-DIC), two- and three-dimensional computer vision, and volumetric digital image correlation (VDIC). Fundamentals of accurate image matching are described, along with presentations of both new methods for quantitative error estimates in correlation-based motion measurements, and the effect of out-of-plane motion on 2D measurements. Thorough appendices offer descriptions of continuum mechanics formulations, methods for local surface strain estimation and non-linear optimization, as well as terminology in statistics and probability. With equal treatment of computer vision fundamentals and techniques for practical applications, this volume is both a reference for academic and industry-based researchers and engineers, as well as a valuable companion text for appropriate vision-based educational offerings.

This book includes a set of rigorously reviewed world-class manuscripts addressing and detailing state-of-the-art research projects in the areas of Computer Science, Computer Engineering and Information Sciences. The book presents selected papers from the conference proceedings of the International Conference on Systems, Computing Sciences and Software Engineering (SCSS 2006). All aspects of the conference were managed on-line.

Past, Present and Future

New Trends in Networking, Computing, E-learning, Systems Sciences, and Engineering

When Small States Make Big Leaps

Recent Progress in Computational Sciences and Engineering (2 vols)

Special Issue for the International Association of Engineers Conferences 2016Volume II

Basic Concepts, Theory and Applications

Fault Lines

CSIE 2011 is an international scientific Congress for distinguished scholars engaged in scientific, engineering and technological research, dedicated to build a platform for exploring and discussing the future of Computer Science and Information Engineering with existing and potential application scenarios. The congress has been held twice, in Los Angeles, USA for the first and in Changchun, China for the second time, each of which attracted a large number of researchers from all over the world. The congress turns out to develop a spirit of cooperation that leads to new friendship for addressing a wide variety of ongoing problems in this vibrant area of technology and fostering more collaboration over the world. The congress, CSIE 2011, received 2483 full paper and abstract submissions from 27 countries and regions over the world. Through a rigorous peer review process, all submissions were refereed based on their quality of content, level of innovation, significance, originality and legibility. 688 papers have been accepted for the international congress proceedings ultimately.

The current book contains twenty-two chapters and is divided into three sections. Section I consists of nine chapters which discuss synthesis through innovative as well as modified conventional techniques of certain advanced ceramics (e.g. target materials, high strength porous ceramics, optical and thermo-luminescent ceramics, ceramic powders and fibers) and their characterization using a combination of well known and advanced techniques. Section II is also composed of nine chapters, which are dealing with the aqueous processing of nitride ceramics, the shape and size optimization of ceramic components through design methodologies and manufacturing technologies, the sinterability and properties of ZnO oxide ceramics, the grinding optimization, the redox behaviour of ceria based and related materials, the alloy reinforcement by ceramic particles addition, the sintering study through dihedral surface angle using AFM and the surface modification and properties induced by a laser beam in pressings of ceramic powders. Section III includes four chapters which are dealing with the deposition of ceramic powders for oxide fuel cells preparation, the perovskite type ceramics for solid fuel cells, the ceramics for laser applications and fabrication and the characterization and modeling of protonic ceramics.

Focusing on a lucrative and increasingly important area of biomedicine, the Biomaterials Fabrication and Processing Handbook brings together various biomaterials production and processing aspects, including tissue engineering scaffold materials, drug delivery systems, nanobiomaterials, and biosensors. With contributions from renowned international experts and extensive reference lists in each chapter, the volume provides detailed, practical information to produce and use biomaterials. The different facets of biomaterials technology are split into four sections in the book— Part I The development of new materials and devices capable of interacting specifically with biological tissues and the preparation of scaffolds using materials with appropriate composition and structure Part II The necessary materials to create a drug delivery system capable of controlled release and the incorporation of drug reservoirs into implantable devices for sustained controlled release Part III The significant role nanotechnology plays in the biomedical and biotechnology fields Part IV More biomaterials, including synthetic and natural degradable polymeric biomaterials, electroactive polymers as smart materials, and biomaterials for gastrointestinal and cartilage repair and reconstruction Two large international conferences on Advances in Engineering Sciences were held in London, UK, 29 June - 1 July, 2016, under the World Congress on Engineering (WCE 2016), and San Francisco, USA, 19-21 October, 2016, under the World Congress on Engineering and Computer Science (WCECS 2016) respectively. This volume contains 42 revised and extended research articles written by prominent researchers participating in the conferences. Topics covered include electrical engineering, manufacturing engineering, industrial engineering, computer science, engineering mathematics and industrial applications. The book offers state-of-the-art advances in engineering sciences and also serves as an excellent reference work for researchers and graduate students working with/on engineering sciences.

Advances and Innovations in Systems, Computing Sciences and Software Engineering

Selected Papers from the International Conference of Computational Methods in Sciences and Engineering (ICCMSE 2005)

Nanofibers

Advances in Ceramics

Earthquake Spectra

Health Care Regulation in America

America the Principled

Arguing that the American principles of open minds, open borders, and open markets are threatened by globalization, the rise of politically powerful religious ideology, and new technologies, a provocative study calls for renewing our commitment as a society that invests in people and new ideas, rewards hard work and talent, values dialogue, and learns from dissent. Reprint. 20,000 first printing.

The conference proceedings of: International Conference on Industrial Electronics, Technology & Automation (IETA 05) International Conference on Telecommunications and Networking (TeNe 05) International Conference on Engineering Education, Instructional Technology, Assessment, and E-learning (EIAE 05) include a set of rigorously reviewed world-class manuscripts addressing and detailing state-of-the-art research projects in the areas of: Industrial Electronics, Technology and Automation, Telecommunications, Networking, Engineering Education, Instructional Technology and e-Learning. The three conferences, (IETA 05, TENE 05 and EIAE 05) were part of the International Joint Conference on Computer, Information, and System Sciences, and Engineering (CISSE 2005). CISSE 2005, the World's first Engineering/Computing and Systems Research E-Conference was the first high-caliber Research Conference in the world to be completely conducted online in real-time via the internet. CISSE received 255 research paper submissions and the final program included 140 accepted papers, from more than 45 countries. The whole concept and format of CISSE 2005 was very exciting and ground-breaking. The powerpoint presentations, final paper manuscripts and time schedule for live presentations over the web had been available for 3 weeks prior to the start of the conference for all registrants, so they could pick and choose the presentations they want to attend and think about questions that they might want to ask. The live audio presentations were also recorded and are part of the permanent CISSE archive, which includes all power point presentations, papers and recorded presentations. All aspects of the conference were managed on-line; not only the reviewing, submissions and registration processes; but also the actual conference. Conference participants - authors, presenters and attendees - only needed an internet connection and sound available on their computers in order to be able to contribute and participate in this international ground-breaking conference. The on-line structure of this high-quality event allowed academic professionals and industry participants to contribute work and attend world-class technical presentations based on rigorously refereed submissions, live, without the need for investing significant travel funds or time out of the office. Suffice to say that CISSE received submissions from more than 50 countries, for whose researchers, this opportunity presented a much more affordable, dynamic and well-planned event to attend and submit their work to, versus a classic, on-the-ground conference. The CISSE conference audio room provided superb audio even over low speed internet connections, the ability to display PowerPoint presentations, and cross-platform compatibility (the conferencing software runs on Windows, Mac, and any other operating system that supports Java). In addition, the conferencing system allowed for an unlimited number of participants, which in turn granted CISSE the opportunity to allow all participants to attend all presentations, as opposed to limiting the number of available seats for each session. The implemented conferencing technology, starting with the submission & review system and ending with the online conferencing capability, allowed CISSE to conduct a very high quality, fulfilling event for all participants. See: www.cissee2005.org, sections: IETA, TENE, EIAE

This Open Access book analyses the past, present and future of the technical university as a single faculty independent institution. The point of departure is a view of changing academic realities, through which the identity as a technical university is challenged and reconstituted. More specifically, the book connects the development of technical universities to changes in the structure and dimensioning of national higher education systems, to changes in the disciplinary basis of academic research and to changes in the governance of higher education institutions. Introduced in the age of industrialization, polytechnical schools rose to prominence in many national settings during the second half of the 19th century. Over time, new technologies have been developed and incorporated into the repertoire, and waves of academisation have swept over the former polytechnics, transforming them into technical universities. Their traditions and brands, however, prevail. Several technical universities are included among the most prestigious academic institutions of their nations and the training of engineers and engineering research still enjoys a high level of prestige and national priority, e.g. in the context of innovation and industrial policy. But the world keeps changing, and the higher education sector with it. Will technical universities have an equally attractive position within university systems in the decades to come? --

From an economist who warned of the global financial crisis, a new warning about the continuing peril to the world economy Raghuram Rajan was one of the few economists who warned of the global financial crisis before it hit. Now, as the world struggles to recover, it's tempting to blame what happened on just a few greedy bankers who took irrational risks and left the rest of us to foot the bill. In Fault Lines, Rajan argues that serious flaws in the economy are also to blame, and warns that a potentially more devastating crisis awaits us if they aren't fixed. Rajan shows how the individual choices that collectively brought about the economic meltdown—made by bankers, government officials, and ordinary homeowners—were rational responses to a flawed global financial order in which the incentives to take on risk are incredibly out of step with the dangers those risks pose. He traces the deepening fault lines in a world overly dependent on the indebted American consumer to power global economic growth and stave off global downturns. He exposes a system where America's growing inequality and thin social safety net create tremendous political pressure to encourage easy credit and keep job creation robust, no matter what the consequences to the economy's long-term health; and where the U.S. financial sector, with its skewed incentives, is the critical but unstable link between an overstimulated America and an underconsuming world. In Fault Lines, Rajan demonstrates how unequal access to education and health care in the United States puts us all in deeper financial peril, even as the economic choices of countries like Germany, Japan, and China place an undue burden on America to get its policies right. He outlines the hard choices we need to make to ensure a more stable world economy and restore lasting prosperity.

Methods and Techniques for Cleaning-up Contaminated Sites

Proceedings of the International Conference on Engineering Science and Production Management (ESPM 2015), Tatranské Matliare, High Tatras Mountains, Slovak Republic, 16th-17th April 2015

Volume 5

The Greening of Pharmaceutical Engineering, Applications for Mental Disorder Treatments

Advances and Trends in Engineering Sciences and Technologies II