

Engineering Science 2012 Memo N

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Nanofluid in Heat Exchangers for Mechanical Systems CRC Press

For more than two decades, anthropologists have wrestled with new digital technologies and their impacts on how their data are collected, managed, and ultimately presented. Anthropological Data in the Digital Age compiles a range of academics in anthropology and the information sciences, archivists, and librarians to offer in-depth discussions of the issues raised by digital scholarship. The volume covers the technical aspects of data management—retrieval, metadata, dissemination, presentation, and preservation—while at once engaging with case studies written by cultural anthropologists and archaeologists returning from the field to grapple with the implications of producing data digitally. Concluding with thoughts on the new considerations and ethics of digital data, Anthropological Data in the Digital Age is a multi-faceted meditation on anthropological practice in a technologically mediated world.

Comprehensive Water Quality and Purification Springer

Spacecraft Dynamics and Control: The Embedded Model Control Approach provides a uniform and systematic way of approaching space engineering control problems from the standpoint of model-based control, using state-space equations as the key paradigm for simulation, design and implementation. The book introduces the Embedded Model Control methodology for the design and implementation of attitude and orbit control systems. The logic architecture is organized around the embedded model of the spacecraft and its surrounding environment. The model is compelled to include disturbance dynamics as a repository of the uncertainty that the control law must reject to meet attitude and orbit requirements within the uncertainty class. The source of the real-time uncertainty estimation/prediction is the model error signal, as it encodes the residual discrepancies between spacecraft measurements and model output. The embedded

model and the uncertainty estimation feedback (noise estimator in the book) constitute the state predictor feeding the control law. Asymptotic pole placement (exploiting the asymptotes of closed-loop transfer functions) is the way to design and tune feedback loops around the embedded model (state predictor, control law, reference generator). The design versus the uncertainty class is driven by analytic stability and performance inequalities. The method is applied to several attitude and orbit control problems. The book begins with an extensive introduction to attitude geometry and algebra and ends with the core themes: state-space dynamics and Embedded Model Control. Fundamentals of orbit, attitude and environment dynamics are treated giving emphasis to state-space formulation, disturbance dynamics, state feedback and prediction, closed-loop stability. Sensors and actuators are treated giving emphasis to their dynamics and modelling of measurement errors. Numerical tables are included and their data employed for numerical simulations. Orbit and attitude control problems of the European GOCE mission are the inspiration of numerical exercises and simulations. The suite of the attitude control modes of a GOCE-like mission is designed and simulated around the so-called mission state predictor. Solved and unsolved exercises are included within the text - and not separated at the end of chapters - for better understanding, training and application. Simulated results and their graphical plots are developed through MATLAB/Simulink code.

Communications and Multimedia Security CRC Press

eResearch presents new challenges in managing data. This book explains to librarians and other information specialists what eResearch is, how it impacts library services and collections, and how to contribute to eResearch activities at their parent institutions. Today's librarians need to be technology-savvy information experts who understand how to manage datasets. Demystifying eResearch: A Primer for Librarians prepares librarians for careers that involve eResearch, clearly defining what it is and how it impacts library services and collections, explaining key terms and concepts, and explaining the importance of the field. You will come to understand exactly how the use of networked computing technologies enhances and supports collaboration and innovative methods particularly in scientific research, learn about eResearch library initiatives and best practices, and recognize the professional development opportunities that eResearch offers. This book takes the broad approach to the complex topic of eResearch and how it pertains to the library community, providing an introduction that will be accessible to readers without a background in electronic research. The author presents a conceptual overview of eResearch with real-world examples of electronic research activities to quickly increase your familiarity with eResearch and awareness of the current state of eResearch librarianship.

Anthropological Data in the Digital Age Academic Conferences Limited

Advances in Computers, Volume 107, the latest volume in a series published since 1960, presents detailed coverage of innovations in computer hardware, software, theory, design and applications.

Chapters in this updated volume include Advances in Model-based Analysis and Testing, Advances in Software Quality Assurance, Advances in Handling Uncertainty in Testing, Advances in Testing of Communicating Systems, and Advances in Formal Verification and Cyber-physical Systems. This book provides contributors with a medium in which they can explore their subjects in greater depth and breadth than journal articles usually allow. Provides in-depth surveys and tutorials on new computer technology Presents well-known authors and researchers in the field Includes extensive bibliographies with most chapters Volumes are devoted to single themes or subfields of computer science

Demystifying eResearch Elsevier

This book on biomimicry assessment tools studies the concepts of sustainability, sustainable construction practices, and the evaluation categories that constitute a sustainability assessment tool. By exploring and drawing lessons from biomimicry principles, the book provides a nature-inspired assessment tool to aid and guide the sustainable transformation of the built environment. The book encapsulates the attributes of the conceptualised biomimicry assessment tool, which is aimed at helping practitioners, regulatory bodies, and governmental and non-governmental agencies in greening the built environment. Owing to the dire need for country-specific and tailor-made tools that address developing countries' needs, this book serves as a practical reference and theoretical springboard for the development of sustainability assessment tools for the built environment. Furthermore, the book serves as a guide in navigating the path towards achieving the greening agendas of the built environment and other sectors and seeks to align the new biomimicry assessment tool with the UN Sustainable Development Goals (SDGs). It is important reading for academics, professionals and advanced students in the built environment, engineering, and sustainable development.

Advances in Computers CRC Press

This book summarizes all different fields of cotton fiber, including genetics, fiber chemistry, soft materials, textile, and fashion engineering. It also contains some new applications such as biomaterials, nanocoated smart fabrics, and functional textiles. Moreover, the significant improvement recently in gene modification and gene technology is introduced. This book discusses all these aspects in a more straightforward way, and new illustrations will help readers to understand the contents. It is intended for undergraduate and graduate students who are interested in cotton science and processing technologies, researchers investigating the updated applications of cotton in various fields as well as industrialists who want to have a quick review of the cotton and its different stages.

Renewable Power for Sustainable Growth Emerald Group Publishing

Handbook of Advances in Braided Composite Materials: Theory, Production, Testing and Applications focuses on the fundamentals of these materials and their associated technology. It provides a one-stop resource that outlines all the significant issues about structural braiding, providing readers with the means by which to produce, test, and design braided composite material structures. It documents the latest research findings into these advanced materials and provides new ideas to encourage greater use of the

technology. Introduces new modeling and testing procedures Presents up-to-date technology developments and recent research findings Provides both an Android and iPhone App to support design criteria

Handbook of Advances in Braided Composite Materials Springer

The commodification of science—often identified with commercialization, or the selling of expertise and research results and the “capitalization of knowledge” in academia and beyond—has been investigated as a threat to the autonomy of science and academic culture and criticized for undermining the social responsibility of modern science. In *From Commodification to the Common Good*, Hans Radder revisits the commodification of the sciences from a philosophical perspective to focus instead on a potential alternative, the notion of public-interest science. Scientific knowledge, he argues, constitutes a common good only if it serves those affected by the issues at stake, irrespective of commercial gain. Scrutinizing the theory and practices of scientific and technological patenting, Radder challenges the legitimacy of commercial monopolies and the private appropriation and exploitation of research results. His book invites us to reevaluate established laws and to question doctrines and practices that may impede or even prohibit scientific research and social progress so that we might achieve real and significant transformations in service of the common good.

HCTL Open Science and Technology Letters (STL) CRC Press

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. After 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 technologies 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 level of presented results.

Security with Intelligent Computing and Big-data Services Walter de Gruyter GmbH & Co KG

Regenerative therapy has rapidly developed as one of the most promising treatments for patients suffering from severe heart failure. Autologous bone marrow-derived cells and cardiac stem cells have been clinically applied for cell injection therapy for heart failure. As a next-generation therapy, tissue-engineered myocardial-patch transplantation h

ICIME 2013 Proceedings of the 4th International Conference on IS Management and Evaluation

John Wiley & Sons

Cloud computing, the Internet of Things (IoT), and big data are three significant technological trends affecting the world's largest corporations. This book discusses big data, cloud computing, and the IoT, with a focus on the benefits and implementation problems. In addition, it examines the many structures and applications pertinent to these disciplines. Also, big data, cloud computing, and the IoT are proposed as possible study avenues. Features: Informs about cloud computing, IoT and big data, including theoretical foundations and the most recent empirical findings Provides essential research on the relationship between various technologies and the aggregate influence they have on solving real-world problems Ideal for academicians, developers, researchers, computer scientists, practitioners, information technology professionals, students, scholars, and engineers exploring research on the incorporation of technological innovations to address contemporary societal challenges

Managing Software Process Evolution Springer Nature

Greywater Reuse examines the features and implications of greywater reuse scientifically, quantitatively, and thoroughly. Based on the authors' extensive studies of treatment facilities in urban and rural environments, development of greywater treatment systems, and research of potential environmental and health risks posed by greywater at differen

Organic Pollutants CRC Press

This book constitutes the refereed proceedings of the 15th IFIP TC 6/TC 11

International Conference on Communications and Multimedia Security, CMS 2014, held in Aveiro, Portugal, in September 2014. The 4 revised full papers presented together with 6 short papers, 3 extended abstracts describing the posters that were discussed at the conference, and 2 keynote talks were carefully reviewed and selected from 22 submissions. The papers are organized in topical sections on vulnerabilities and threats, identification and authentication, applied security.

Proceeding Celebes International Conference on Diversity of Wallacea's Line (CICDWL 2015) CRC Press

Engineering Challenges for Sustainable Future contains the papers presented at the 3rd International Conference on Civil, Offshore & Environmental Engineering (ICCOEE2016, Kuala Lumpur, Malaysia, 15-17 August 2016), under the banner of World Engineering, Science & Technology Congress (ESTCON2016). The ICCOEE series of conferences started in Kuala Lumpur, Malaysia 2012, and the second event of the series took place in Kuala Lumpur, Malaysia 2014. This conference series deals with the civil, offshore & environmental engineering field, addressing the following topics: • Environmental and Water Resources Engineering • Coastal and Offshore Engineering • Structures and Materials • Construction and Project Management • Highway, Geotechnical and Transportation Engineering and Geo-informatics This book is an essential reading for academic, engineers and all professionals involved in the area of civil, offshore and environmental engineering.

Spacecraft Dynamics and Control CRC Press

With the current emphasis on sustainable construction there is now a move towards using non-hazardous waste materials and by-products, as binders in making self-compacting concrete. *Alternative Cementitious Materials for Self-Compacting Concrete* provides a detailed review on the various properties of self-compacting concrete (SCC) and how they are affected by the use, of by-products and waste materials in concrete production. The book provides a fair comparison on the application and use of various types of materials in SCC. It also provides the latest data and detailed information on modeling and soft computing techniques for estimation of the various properties of SCC as well as detailed investigations on microstructural characterization. The book will be a valuable reference resource for materials scientists, and civil and structural engineers working in construction materials and self-compacting concrete, as well as for those working in the cement production and non-hazard waste industries. Includes detailed information on modeling and computational techniques for estimating SCC properties Provides comprehensive information on the use of waste materials and by-products in self-compacting concrete Covers comprehensive information on the different properties of SCC

Building Smart, Resilient and Sustainable Infrastructure in Developing Countries Unhalu Press

Organic pollutants cause several environmental problems if discharged to air or water body. The occurrence of organic pollutants in the ecosystem, their risk and removal methods are very important issues. This book deals with several aspects of organic pollutants, especially in the light of organic

pollutants monitoring, risk assessment as well as the practical application of different techniques for removing it from the environment. The book is divided into three sections contains 9 chapters. The first section explains monitoring of organic pollutants in soil and water. The second section discusse its risk to human, soil and plants. The third section focuse on the different treatment process for the removal of organic pollutants.

Engineering Challenges for Sustainable Future CRC Press

The authors offer road infrastructure stakeholders with a precise and functional tool that promotes collaboration, common language and comprehension, engagement and interaction among all individuals and institutions involved in sustainable road infrastructure project implementation.

Cotton Science and Processing Technology Academic Press

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.

From Commodification to the Common Good Woodhead Publishing

Prosiding ini memuat sejumlah abstrak dan makalah yang disajikan dalam Celebes International Conference on Diversity of Wallacea's Line (CICDWL 2015). Mengusung tema "Sustainable Management of Geological, Biological, and Cultural Diversities of Wallacea's Line toward A Millennium Era" seminar ini diselenggarakan di Kendari pada 8–10 Mei 2015.

Computational Intelligence in Digital Forensics: Forensic Investigation and Applications Springer Nature

To mitigate climate change and to reduce the emissions of greenhouse gases the interest in the utilization of renewable energies has increased drastically in the recent years. Due to the broad availability and its negative carbon emissions biomass is an attractive renewable energy resource. By applying the biomass chemical looping gasification technology the biomass can be used for the generation of electricity or the production of syngas as feedstock for synthetic fuels such as hydrogen and methanol. To promote the progress of this technology, a novel two-stage design for the gasification reactor is proposed in this work aiming to reduce the undesired tar content in the produced syngas, while maintaining a high syngas yield. To investigate the performance of this design, a reaction model was developed using the so-called multiphase particle-in-cell (MP-PIC) method. Furthermore, optimization recommendations for biomass chemical looping processes in general were derived to adjust the syngas composition and to increase the syngas yield.