Neural Networks In A Softcomputing Framework Author Ke Lin Du Oct 2010

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Cognitive and Soft Computing Techniques for the Analysis of Healthcare Data Akash Kumar Bhoi 2022-01-28 Cognitive and Soft Computing Techniques for the Analysis of Healthcare Data discusses the insight of data processing applications in various domains through soft computing techniques and enormous advancements in the field. The book focuses on the cross-disciplinary mechanisms and ground-breaking research ideas on novel techniques and data processing approaches in handling structured and unstructured healthcare data. It also gives insight into various information-processing models and many memories associated with it while processing the information for forecasting future trends and decision making. This book is an excellent resource for researchers and professionals who work in the Healthcare Industry, Data Science, and Machine learning. Focuses on data-centric operations in the Healthcare industry Provides the latest trends in healthcare data analytics and practical implementation outcomes of the proposed models Addresses real-time challenges and case studies in the Healthcare industry

Kansei Engineering and Soft Computing: Theory and Practice Dai, Ying 2010-08-31 Kansei Engineering and Soft Computing: Theory and Practice offers readers a comprehensive review of kansei engineering, soft computing techniques, and the fusion of these two fields from a variety of viewpoints. It explores traditional technologies, as well as solutions to real-world problems through the concept of kansei and the effective utilization of soft computing techniques. This publication is an essential read for professionals, researchers, and students in the field of kansei information processing and soft computing providing both theoretical and practical viewpoints of research in humanized technology.

Canadian Who's Who 2008 Elizabeth Lumley 2008-01-05 "Now in its ninety-eighth year of publication, this standard Canadian reference source contains the most comprehensive and authoritative biographical information on notable living Canadians. Those listed are carefully selected because of the positions they hold in Canadian society, or because of the contribution they have made to life in Canada.The volume is updated annually to ensure accuracy, and 600 new entries are added each year to keep current with developing trends and issues in Canadian

society. Included are outstanding Canadians from all walks of life: politics, media, academia, business, sports and the arts, from every area of human activity. Each entry details birth date and place, education, family, career history, memberships, creative works, honours and awards, and full addresses. Indispensable to researchers, students, media, business, government and schools, Canadian Who's Who is an invaluable source of general knowledge. The complete text of Canadian Who's Who is also available on CD-ROM, in a comprehensively indexed and fully searchable format. Search 'astronaut' or 'entrepreneur of the year,' 'aboriginal achievement award' and 'Order of Canada' and discover a wealth of information. Fast, easy and more accessible than ever, the Canadian Who's Who on CD-ROM is an essential addition to your electronic library. Network Licensing available. ISBN 978-0-8020-4064-0 For pricing information, please contact CEDROM-Sni 1-888-544-0339 ext. 3 info.canada@cedrom-sni.comPST 8% applicable to Ontario residents on all of the aboveCD-ROM requirements: WINDOWS: 95/98/2000/NT/XP - 386/25Mhz - 4mb RAM (8mb recommended) MAC: OS 7, 8, and 9 - 4mb RAM (8mb recommended)"

Applied Soft Computing and Communication Networks Sabu M. Thampi 2021-07-01 This book constitutes thoroughly refereed post-conference proceedings of the International Applied Soft Computing and Communication Networks (ACN 2020) held in VIT, Chennai, India, during October 14–17, 2020. The research papers presented were carefully reviewed and selected from several initial submissions. The book is directed to the researchers and scientists engaged in various fields of intelligent systems.

Advances on Smart and Soft Computing Faisal Saeed

Applied Soft Computing Samarjeet Borah 2022-02-03 This new volume explores a variety of modern techniques that deal with estimated models and give resolutions to complex real-life issues. Soft computing has played a crucial role not only with theoretical paradigms but is also popular for its pivotal role for designing a large variety of expert systems and artificial intelligence-based applications. Involving the concepts and practices of soft computing in conjunction with other frontier research

domains, this book begins with the basics and goes on to explore a variety of modern applications of soft computing in areas such as approximate reasoning, artificial neural networks, Bayesian networks, big data analytics, bioinformatics, cloud computing, control systems, data mining, functional approximation, fuzzy logic, genetic and evolutionary algorithms, hybrid models, machine learning, metaheuristics, neuro fuzzy system, optimization, randomized searches, and swarm intelligence. This book will be helpful to a wide range of readers who wish to learn applications of soft computing approaches. It will be useful for academicians, researchers, students, and machine learning experts who use soft computing techniques and algorithms to develop cutting-edge artificial intelligence-based applications.

Applications of Soft Computing for the Web Rashid Ali 2018-01-08 This book discusses the applications of different soft computing techniques for the web-based systems and services. The respective chapters highlight recent developments in the field of soft computing applications, from web-based information retrieval to online marketing and online healthcare. In each chapter author endeavor to explain the basic ideas behind the proposed applications in an accessible format for readers who may not possess a background in these fields. This carefully edited book covers a wide range of new applications of soft computing techniques in Web recommender systems, Online documents classification, Online documents summarization, Online document clustering, Online market intelligence, Web usage profiling, Web data extraction, Social network extraction, Question answering systems, Online health care, Web knowledge management, Multimedia information retrieval, Navigation guides, User profiles extraction, Web-based distributed information systems, Web security applications, Internet of Things Applications and so on. The book is aimed for researchers and practitioner who are engaged in developing and applying intelligent systems principles for solving real-life problems. Further, it has been structured so that each chapter can be read independently of the others.

Distributed Computing, Artificial Intelligence, Bioinformatics, Soft Computing, and Ambient Assisted Living Sigeru Omatu 2009-06-08

This book constitutes the refereed proceedings of the 10th International Work-Conference on Artificial Neural Networks, IWANN 2009, held in Salamanca, Spain in June 2009. The 167 revised full papers presented together with 3 invited lectures were carefully reviewed and selected from over 230 submissions. The papers are organized in thematic sections on theoretical foundations and models; learning and adaptation; self-organizing networks, methods and applications; fuzzy systems; evolutionary computation and genetic algoritms; pattern recognition; formal languages in linguistics; agents and multi-agent on intelligent systems; brain-computer interfaces (bci); multiobjetive optimization; robotics; bioinformatics; biomedical applications; ambient assisted living (aal) and ambient intelligence (ai); other applications.

Intelligent Systems and Soft Computing Behnam Azvine 2006-12-30 Artificial intelligence has, traditionally focused on solving human-centered problems like natural language processing or common-sense reasoning. On the other hand, for a while now soft computing has been applied successfully in areas like pattern recognition, clustering, or automatic control. The papers in this book explore the possibility of bringing these two areas together. This book is unique in the way it concentrates on building intelligent software systems by combining methods from diverse disciplines, such as fuzzy set theory, neuroscience, agent technology, knowledge discovery, and symbolic artificial intelligence. The first part of the book focuses on foundational aspects and future directions; the second part provides the reader with an overview of recently developed software tools for building flexible intelligent systems; the final section studies developed applications in various fields.

Recurrent Neural Networks and Soft Computing Mahmoud ElHefnawi 2012-03-30 New applications in recurrent neural networks are covered by this book, which will be required reading in the field. Methodological tools covered include ranking indices for fuzzy numbers, a neuro-fuzzy digital filter and mapping graphs of parallel programmes. The scope of the techniques profiled in real-world applications is evident from chapters on the recognition of severe weather patterns, adult and foetal ECGs in healthcare and the prediction of temperature time-series signals.

Additional topics in this vein are the application of AI techniques to electromagnetic interference problems, bioprocess identification and I-term control and the use of BRNN-SVM to improve protein-domain prediction accuracy. Recurrent neural networks can also be used in virtual reality and nonlinear dynamical systems, as shown by two chapters.

Soft Computing: Theories and Applications Rajesh Kumar 2022-06-01 This book focuses on soft computing and how it can be applied to solve real-world problems arising in various domains, ranging from medicine and healthcare, to supply chain management, image processing, and cryptanalysis. It gathers high-quality papers presented at the International Conference on Soft Computing: Theories and Applications (SoCTA 2021), organized online. The book offers valuable insights into soft computing for teachers and researchers alike; the book will inspire further research in this dynamic field.

Soft Computing for Security Applications G. Ranganathan

Soft Computing Applications for Database Technologies K. Anbumani 2010-01-01 "This book investigates the advent of soft computing and its applications in database technologies"--Provided by publisher.

Proceedings of the Tenth International Conference on Soft Computing and Pattern Recognition (SoCPaR 2018) Ana Maria Madureira 2019-04-09 This book highlights recent research on Soft Computing, Pattern Recognition, Information Assurance and Security. It presents 38 selected papers from the 10th International Conference on Soft Computing and Pattern Recognition (SoCPaR 2018) and the 14th International Conference on Information Assurance and Security (IAS 2018) held at Instituto Superior de Engenharia do Porto (ISEP), Portugal during December 13–15, 2018. SoCPaR – IAS 2018 is a premier conference and brings together researchers, engineers and practitioners whose work involves soft computing and information assurance and their applications in industry and the real world. Including contributions by authors from over 25 countries, the book offers a valuable reference guide for all researchers, students and practitioners in the fields of Computer Science and Engineering.

Issues in Computer Science and Theory: 2013 Edition 2013-05-01 Issues in Computer Science and Theory / 2013 Edition is a ScholarlyEditions™ book that delivers timely, authoritative, and comprehensive information about Soft Computing. The editors have built Issues in Computer Science and Theory: 2013 Edition on the vast information databases of ScholarlyNews.™ You can expect the information about Soft Computing in this book to be deeper than what you can access anywhere else, as well as consistently reliable, authoritative, informed, and relevant. The content of Issues in Computer Science and Theory: 2013 Edition has been produced by the world's leading scientists, engineers, analysts, research institutions, and companies. All of the content is from peer-reviewed sources, and all of it is written, assembled, and edited by the editors at ScholarlyEditions™ and available exclusively from us. You now have a source you can cite with authority, confidence, and credibility. More information is available at http://www.ScholarlyEditions.com/.
Foundations and Practical Applications of Cognitive Systems and Information Processing Fuchun Sun 2013-09-21 "Foundations and Practical Applications of Cognitive Systems and Information Processing" presents selected papers from the First International Conference on Cognitive Systems and Information Processing, held in Beijing, China on December 15-17, 2012 (CSIP2012). The aim of this conference is to bring together experts from different fields of expertise to discuss the state-of-the-art in artificial cognitive systems and advanced information processing, and to present new findings and perspectives on future development. This book introduces multidisciplinary perspectives on the subject areas of Cognitive Systems and Information Processing, including cognitive sciences and technology, autonomous vehicles, cognitive psychology, cognitive metrics, information fusion, image/video understanding, brain-computer interfaces, visual cognitive processing, neural computation, bioinformatics, etc. The book will be beneficial for both researchers and practitioners in the fields of Cognitive Science, Computer Science and Cognitive Engineering. Fuchun Sun and Huaping Liu are both professors at the Department of Computer Science &

Technology, Tsinghua University, China. Dr. Dewen Hu is a professor at the College of Mechatronics and Automation, National University of Defense Technology, Changsha, China.
Soft Computing and Signal Processing V. Sivakumar Reddy 2020-03-13 This book presents selected research papers on current developments in the fields of soft computing and signal processing from the Second International Conference on Soft Computing and Signal Processing (ICSCSP 2019). The respective contributions address topics such as soft sets, rough sets, fuzzy logic, neural networks, genetic algorithms and machine learning, and discuss various aspects of these topics, e.g. technological considerations, product implementation, and application issues.
Neural Networks and Soft Computing Leszek Rutkowski 2013-03-20 This volume presents new trends and developments in soft computing techniques. Topics include: neural networks, fuzzy systems, evolutionary computation, knowledge discovery, rough sets, and hybrid methods. It also covers various applications of soft computing techniques in economics, mechanics, medicine, automatics and image processing. The book contains contributions from internationally recognized scientists, such as Zadeh, Bubnicki, Pawlak, Amari, Batyrshin, Hirota, Koczy, Kosinski, Novák, S.-Y. Lee, Pedrycz, Raudys, Setiono, Sincak, Strumillo, Takagi, Usui, Wilamowski and Zurada. An excellent overview of soft computing methods and their applications.
Advances in Soft Computing Rajkumar Roy 2012-12-06 Advances in Soft Computing contains the most recent developments in the field of soft computing in engineering design and manufacture. The book comprises a selection of papers that were first presented in June 1998 at the 3rd On-line World Conference on Soft Computing in Engineering Design and Manufacturing. Amongst these are four invited papers by World-renowned researchers in the field. Soft computing is a collection of methodologies which aim to exploit tolerance for imprecision, uncertainty and partial truth to achieve tractability, robustness and low solution cost. The area of applications of soft computing is extensive. Principally the constituents of soft computing are: fuzzy computing, neuro-computing, genetic

computing and probabilistic computing. The topics in this book are well focused on engineering design an d manufacturing. This broad collection of 43 research papers, has been arranged into nine parts by the editors. These include: Design Support Systems, Intelligent Control, Data Mining and New Topics in EA basics. The papers on evolutionary design and optimisation are of particular interest. Innovative techniques are explored and the reader is introduced to new, highly advanced research results. The editors present a unique collection of papers that provide a comprehensive overview of current developments in soft computing research around the world.

Soft Computing Models in Industrial and Environmental Applications, 6th International Conference SOCO 2011 Emilio Corchado 2011-03-04 This volume of Advances in Intelligent and Soft Computing contains accepted papers presented at SOCO 2011 held in the beautiful and historic city of Salamanca, Spain, April 2011. This volume presents the papers accepted for the 2011 edition, both for the main event and the Special Sessions. SOCO 2011 Special Sessions are a very useful tool in order to complement the regular program with new or emerging topics of particular interest to the participating community. Four special sessions were organized related to relevant topics as: Optimization and Control in Industry, Speech Processing and Soft Computing, Systems, Man & Cybernetics and Soft Computing for Medical Applications.

Neural Networks in a Softcomputing Framework Ke-Lin Du 2010-10-13 This concise but comprehensive textbook reviews the most popular neural-network methods and their associated techniques. Each chapter provides state-of-the-art descriptions of important major research results of the respective neural-network methods. A range of relevant computational intelligence topics, such as fuzzy logic and evolutionary algorithms – powerful tools for neural-network learning – are introduced. The systematic survey of neural-network models and exhaustive references list will point readers toward topics for future research. The algorithms outlined also make this textbook a valuable reference for scientists and practitioners working in pattern recognition, signal processing, speech and image processing, data analysis and artificial intelligence.

Proceedings of the Eighth International Conference on Soft Computing and Pattern Recognition (SoCPaR 2016) Ajith Abraham 2017-08-17 This volume presents 70 carefully selected papers from a major joint event: the 8th International Conference on Soft Computing and Pattern Recognition (SoCPaR 2016) and the 8th International Conference on Computational Aspects of Social Networks (CASoN 2016). SoCPaR–CASoN 2016, which was organized by the Machine Intelligence Research Labs (MIR Labs), USA and Vellore Institute of Technology (VIT), India and held at the VIT on December 19–21, 2016. It brings together researchers and practitioners from academia and industry to share their experiences and exchange new ideas on all interdisciplinary areas of soft computing and pattern recognition, as well as intelligent methods applied to social networks. This book is a valuable resource for practicing engineers/scientists and researchers working in the field of soft computing, pattern recognition and social networks.

Recent Advances in Intelligent Paradigms and Applications Ajith Abraham 2013-03-20 Digital systems that bring together the computing capacity for processing large bodies of information with the human cognitive capability are called intelligent systems. Building these systems has become one of the great goals of modem technology. This goal has both intellectual and economic incentives. The need for such intelligent systems has become more intense in the face of the global connectivity of the internet. There has become an almost insatiable requirement for instantaneous information and decision brought about by this confluence of computing and communication. This requirement can only be satisfied by the construction of innovative intelligent systems. A second and perhaps an even more significant development is the great advances being made in genetics and related areas of biotechnology. Future developments in biotechnology may open the possibility for the development of a true human-silicon interaction at the micro level, neural and cellular, bringing about a need for "intelligent" systems. What is needed to further the development of intelligent systems are tools to

enable the representation of human cognition in a manner that allows formal manipulation. The idea of developing such an algebra goes back to Leibniz in the 17th century with his dream of a calculus ratiocinator. It wasn't until two hundred years later beginning with the work of Boole, Cantor and Frege that a formal mathematical logic for modeling human reasoning was developed. The introduction of the modem digital computer during the Second World War by von Neumann and others was a culmination of this intellectual trend.

Advances in Abstract Intelligence and Soft Computing Wang, Yingxu 2012-12-31 Continuous developments in software and intelligence sciences have brought together the studies of both natural and machine intelligence and the relationship between the function of the brain and the abstract soft mind; creating a new multidisciplinary field of study. Advances in Abstract Intelligence and Soft Computing brings together the latest research in computer science: theoretical software engineering, cognitive science and informatics, and also their influence on the processes of natural and machine intelligence. This book is a collection of widespread research in the constant expansions on this emerging discipline.

Fuzzy Logic and Applications Vito Di Gesù 2006-01-25 This volume constitutes the thoroughly refereed post-workshop proceedings of the 5th International Workshop on Fuzzy Logic and Applications held in Naples, Italy, in October 2003. The 40 revised full papers presented have gone through two rounds of reviewing and revision. All current issues of theoretical, experimental and applied fuzzy logic and related techniques are addressed with special attention to rough set theory, neural networks, genetic algorithms and soft computing. The papers are organized in topical section on fuzzy sets and systems, fuzzy control, neuro-fuzzy systems, fuzzy decision theory and application, and soft computing in image processing.

Hybrid Soft Computing Approaches Siddhartha Bhattacharyya 2015-08-21 The book provides a platform for dealing with the flaws and failings of the soft computing paradigm through different manifestations. The different chapters highlight the necessity of the hybrid soft computing methodology in general with emphasis on several application perspectives in particular. Typical examples include (a) Study of Economic Load Dispatch by Various Hybrid Optimization Techniques, (b) An Application of Color Magnetic Resonance Brain Image Segmentation by Para Optimus LG Activation Function, (c) Hybrid Rough-PSO Approach in Remote Sensing Imagery Analysis, (d) A Study and Analysis of Hybrid Intelligent Techniques for Breast Cancer Detection using Breast Thermograms, and (e) Hybridization of 2D-3D Images for Human Face Recognition. The elaborate findings of the chapters enhance the exhibition of the hybrid soft computing paradigm in the field of intelligent computing.

15th International Conference on Soft Computing Models in Industrial and Environmental Applications (SOCO 2020) Álvaro Herrero 2020-08-28 This book contains accepted papers presented at SOCO 2020 conference held in the beautiful and historic city of Burgos (Spain), in September 2020. Soft computing represents a collection or set of computational techniques in machine learning, computer science and some engineering disciplines, which investigate, simulate, and analyze very complex issues and phenomena. After a through peer-review process, the SOCO 2020 International Program Committee selected 83 papers which are published in these conference proceedings and represents an acceptance rate of 35%. Due to the COVID-19 outbreak, the SOCO 2020 edition was blended, combining on-site and on-line participation. In this relevant edition a special emphasis was put on the organization of special sessions. Eleven special session were organized related to relevant topics such as: Soft Computing Applications in Precision Agriculture, Manufacturing and Management Systems, Management of Industrial and Environmental Enterprises, Logistics and Transportation Systems, Robotics and Autonomous Vehicles, Computer Vision, Laser-Based Sensing and Measurement and other topics such as Forecasting Industrial Time Series, IoT, Big Data and Cyber Physical Systems, Non-linear Dynamical Systems and Fluid Dynamics, Modeling and Control systems The selection of papers was extremely rigorous in order to maintain the high quality of SOCO conference editions and we

would like to thank the members of the Program Committees for their hard work in the reviewing process. This is a crucial process to the creation of a high standard conference and the SOCO conference would not exist without their help.

Recent Developments and the New Direction in Soft-Computing Foundations and Applications Lotfi A. Zadeh 2018-05-28 This book is an authoritative collection of contributions in the field of soft-computing. Based on selected works presented at the 6th World Conference on Soft Computing, held on May 22-25, 2016, in Berkeley, USA, it describes new theoretical advances, as well as cutting-edge methods and applications. Theories cover a wealth of topics, such as fuzzy logic, cognitive modeling, Bayesian and probabilistic methods, multi-criteria decision making, utility theory, approximate reasoning, human-centric computing and many others. Applications concerns a number of fields, such as internet and semantic web, social networks and trust, control and robotics, computer vision, medicine and bioinformatics, as well as finance, security and e-Commerce, among others. Dedicated to the 50th Anniversary of Fuzzy Logic and to the 95th Birthday Anniversary of Lotfi A. Zadeh, the book not only offers a timely view on the field, yet it also discusses thought-provoking developments and challenges, thus fostering new research directions in the diverse areas of soft computing.

Soft Computing in Acoustics Bozena Kostek 2013-06-29 Applications of some selected soft computing methods to acoustics and sound engineering are presented in this book. The aim of this research study is the implementation of soft computing methods to musical signal analysis and to the recognition of musical sounds and phrases. Accordingly, some methods based on such learning algorithms as neural networks, rough sets and fuzzy-logic were conceived, implemented and tested. Additionally, the above-mentioned methods were applied to the analysis and verification of subjective testing results. The last problem discussed within the framework of this book was the problem of fuzzy control of the classical pipe organ instrument. The obtained results show that computational intelligence and soft computing may be used for solving some vital problems in both musical and architectural acoustics.

Soft Computing Luigi Fortuna 2012-12-06 The book presents a clear understanding of a new type of computation system, the Cellular Neural Network (CNN), which has been successfully applied to the solution of many heavy computation problems, mainly in the fields of image processing and complex partial differential equations. The text describes how CNN will improve the soft-computation toolbox, and examines the many applications of soft computing to complex systems.

Advances in Soft Computing Lourdes Martínez-Villaseñor 2020-10-07 The two-volume set LNAI 12468 and 12469 constitutes the proceedings of the 19th Mexican International Conference on Artificial Intelligence, MICAI 2020, held in Mexico City, Mexico, in October 2020. The total of 77 papers presented in these two volumes was carefully reviewed and selected from 186 submissions. The contributions are organized in topical as follows: Part I: machine and deep learning, evolutionary and metaheuristic algorithms, and soft computing. Part II: natural language processing, image processing and pattern recognition, and intelligent applications and robotics.

Soft Computing for Problem Solving Kedar Nath Das 2019-11-27 This two-volume book presents the outcomes of the 8th International Conference on Soft Computing for Problem Solving, SocProS 2018. This conference was a joint technical collaboration between the Soft Computing Research Society, Liverpool Hope University (UK), and Vellore Institute of Technology (India), and brought together researchers, engineers and practitioners to discuss thought-provoking developments and challenges in order to select potential future directions. The book highlights the latest advances and innovations in the interdisciplinary areas of soft computing, including original research papers on algorithms (artificial immune systems, artificial neural networks, genetic algorithms, genetic programming, and particle swarm optimization) and applications (control systems, data mining and clustering, finance, weather forecasting, game theory, business and forecasting applications). It offers a valuable resource for both young and experienced researchers dealing with complex and intricate real-world problems that are difficult to solve using traditional methods.

Neural Networks and Statistical Learning Ke-Lin Du 2013-12-09 Providing a broad but in-depth introduction to neural network and machine learning in a statistical framework, this book provides a single, comprehensive resource for study and further research. All the major popular neural network models and statistical learning approaches are covered with examples and exercises in every chapter to develop a practical working understanding of the content. Each of the twenty-five chapters includes state-of-the-art descriptions and important research results on the respective topics. The broad coverage includes the multilayer perceptron, the Hopfield network, associative memory models, clustering models and algorithms, the radial basis function network, recurrent neural networks, principal component analysis, nonnegative matrix factorization, independent component analysis, discriminant analysis, support vector machines, kernel methods, reinforcement learning, probabilistic and Bayesian networks, data fusion and ensemble learning, fuzzy sets and logic, neurofuzzy models, hardware implementations, and some machine learning topics. Applications to biometric/bioinformatics and data mining are also included. Focusing on the prominent accomplishments and their practical aspects, academic and technical staff, graduate students and researchers will find that this provides a solid foundation and encompassing reference for the fields of neural networks, pattern recognition, signal processing, machine learning, computational intelligence, and data mining.

Architectural Wireless Networks Solutions and Security Issues Santosh Kumar Das 2021-04-23 This book presents architectural solutions of wireless network and its variations. It basically deals with modeling, analysis, design and enhancement of different architectural parts of wireless network. The main aim of this book is to enhance the applications of wireless network by reducing and controlling its architectural issues. The book discusses efficiency and robustness of wireless network as a platform for communication and data transmission and also discusses some challenges and security issues such as limited hardware resources, unreliable communication, dynamic topology of some wireless networks, vulnerability and unsecure environment. This book is edited for users, academicians and researchers of wireless network. Broadly, topics include modeling of security enhancements, optimization model for network lifetime, modeling of aggregation systems and analyzing of troubleshooting techniques.

Modelling and Simulation in Science Vito Di Ges 2007 This proceedings volume contains results presented at the Sixth International Workshop on Data Analysis in Astronomy OCo OC Modeling and Simulation in ScienceOCO held on April 15-22, 2007, at the Ettore Majorana Foundation and Center for Scientific Culture, Erice, Italy. Recent progress and new trends in the field of simulation and modeling in three branches of science OCo astrophysics, biology, and climatology OCo are described in papers presented by outstanding scientists. The impact of new technologies on the design of novel data analysis systems and the interrelation among different fields are foremost in scientists'' minds in the modern era. This book therefore focuses primarily on data analysis methodologies and techniques. Sample Chapter(s). Chapter 1: Simulations for Uhe Cosmic Ray Experiments (562 KB). Contents: Astrophysics, Cosmology and Earth Physics: Simulations for UHE Cosmic Ray Experiments (J Knapp); Problems and Solutions in Climate Modeling (A Sutera); Statistical Analysis of Quasar Data and Validity of the Hubble Law (S Roy et al.); Quantum Astronomy and Information (C Barbieri); Biology, Biochemistry and Bioinformatics: From Genomes to Protein Models and Back (A Tramontano et al.); Exploring Biomolecular Recognition by Modeling and Simulation (R Wade); BioInfogrid: Bioinformatics Simulation and Modeling Based on Grid (L Milanesi); Methods and Techniques: Optimization Strategies for Modeling and Simulation (J Louchet); Biclustering Bioinformatics Data Sets: A Possibilistic Approach (F Masulli); From the Qubit to the Quantum Search Algorithms (G Cariolaro & T Occhipinti); Comparison of Stereo Vision Techniques for Cloud-Top Height Retrieval (A Anzalone et al.); and other papers. Readership: Physicists; biologists; computer scientists and data analysts."

Soft Computing and its Engineering Applications Kanubhai K. Patel *Soft Computing Methods for Practical Environment Solutions: Techniques and Studies* Gestal Pose, Marcos 2010-05-31 "This publication presents a

series of practical applications of different Soft Computing techniques to real-world problems, showing the enormous potential of these techniques in solving problems"--Provided by publisher.

The Internet of Medical Things (IoMT) R. J. Hemalatha 2022-03-29 INTERNET OF MEDICAL THINGS (IOMT) Providing an essential addition to the reference material available in the field of IoMT, this timely publication covers a range of applied research on healthcare, biomedical data mining, and the security and privacy of health records. With their ability to collect, analyze and transmit health data, IoMT tools are rapidly changing healthcare delivery. For patients and clinicians, these applications are playing a central part in tracking and preventing chronic illnesses — and they are poised to evolve the future of care. In this book, the authors explore the potential applications of a wave of sensor-based tools—including wearables and stand-alone devices for remote patient monitoring—and the marriage of internet-connected medical devices with patient information that ultimately sets the IoMT ecosystem apart. This book demonstrates the connectivity between medical devices and sensors is streamlining clinical workflow management and leading to an overall improvement in patient care, both inside care facilities and in remote locations.

Artificial Intelligence and Soft Computing Leszek Rutkowski 2020-10-20 The two-volume set LNCS 12415 and 12416 constitutes the refereed proceedings of of the 19th International Conference on Artificial Intelligence and Soft Computing, ICAISC 2020, held in Zakopane, Poland*, in October 2020. The 112 revised full papers presented were carefully reviewed and selected from 265 submissions. The papers included in the first volume are organized in the following six parts: neural networks and their applications; fuzzy systems and their applications; evolutionary algorithms and their applications; pattern classification; bioinformatics, biometrics and medical applications; artificial intelligence in modeling and simulation. The papers included in the second volume are organized in the following four parts: computer vision, image and speech analysis; data mining; various problems of artificial intelligence; agent systems, robotics and control. *The conference was held virtually due to the COVID-19 pandemic.

Soft Computing in Wireless Sensor Networks Huynh Thi Thanh Binh 2018-09-27 This book focuses on the suitable methods to solve optimization problems in wireless network system utilizing digital sensors like Wireless Sensor Network. This kind of system has been emerging as the cornerstone technology for all new smart devices and its direct application in many fields in life.