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**KEY=OPNET - SMITH KEENAN**

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## Network Simulation Experiments Manual

Elsevier **Network Simulation Experiments Manual, Third Edition**, is a practical tool containing detailed, simulation-based experiments to help students and professionals learn about key concepts in computer networking. It allows the networking professional to visualize how computer networks work with the aid of a software tool called OPNET to simulate network function. OPNET provides a virtual environment for modeling, analyzing, and predicting the performance of IT infrastructures, including applications, servers, and networking technologies. It can be downloaded free of charge and is easy to install. The book's simulation approach provides a virtual environment for a wide range of desirable features, such as modeling a network based on specified criteria and analyzing its performance under different scenarios. The experiments include the basics of using OPNET IT Guru Academic Edition; operation of the Ethernet network; partitioning of a physical network into separate logical networks using virtual local area networks (VLANs); and the basics of network design. Also covered are congestion control algorithms implemented by the Transmission Control Protocol (TCP); the effects of various queuing disciplines on packet delivery and delay for different services; and the role of firewalls and virtual private networks (VPNs) in providing security to shared public networks. Each experiment in this updated edition is accompanied by review questions, a lab report, and exercises. Networking designers and professionals as well as graduate students will find this manual extremely helpful. Updated

and expanded by an instructor who has used OPNET simulation tools in his classroom for numerous demonstrations and real-world scenarios. Software download based on an award-winning product made by OPNET Technologies, Inc., whose software is used by thousands of commercial and government organizations worldwide, and by over 500 universities. Useful experimentation for professionals in the workplace who are interested in learning and demonstrating the capability of evaluating different commercial networking products, i.e., Cisco routers. Covers the core networking topologies and includes assignments on Switched LANs, Network Design, CSMA, RIP, TCP, Queuing Disciplines, Web Caching, etc.

## Simulation in Computer Network Design and Modeling: Use and Analysis

### Use and Analysis

IGI Global "This book reviews methodologies in computer network simulation and modeling, illustrates the benefits of simulation in computer networks design, modeling, and analysis, and identifies the main issues that face efficient and effective computer network simulation"--Provided by publisher.

## The Practical OPNET User Guide for Computer Network Simulation

CRC Press One of the first books to provide a comprehensive description of OPNET IT Guru and Modeler software, The Practical OPNET User Guide for Computer Network Simulation explains how to use this software for simulating and modeling computer networks. The included laboratory projects help readers learn different aspects of the software in a hands-on way.Q

# The Practical OPNET User Guide for Computer Network Simulation

CRC Press **One of the first books to provide a comprehensive description of OPNET® IT Guru and Modeler software, The Practical OPNET® User Guide for Computer Network Simulation explains how to use this software for simulating and modeling computer networks. The included laboratory projects help readers learn different aspects of the software in a hands-on way. Quickly Locate Instructions for Performing a Task The book begins with a systematic introduction to the basic features of OPNET, which are necessary for performing any network simulation. The remainder of the text describes how to work with various protocol layers using a top-down approach. Every chapter explains the relevant OPNET features and includes step-by-step instructions on how to use the features during a network simulation. Gain a Better Understanding of the "Whats" and "Whys" of the Simulations Each laboratory project in the back of the book presents a complete simulation and reflects the same progression of topics found in the main text. The projects describe the overall goals of the experiment, discuss the general network topology, and give a high-level description of the system configuration required to complete the simulation. Discover the Complex Functionality Available in OPNET By providing an in-depth look at the rich features of OPNET software, this guide is an invaluable reference for IT professionals and researchers who need to create simulation models. The book also helps newcomers understand OPNET by organizing the material in a logical manner that corresponds to the protocol layers in a network.**

## Wireless Technologies: Concepts, Methodologies, Tools and Applications

# Concepts, Methodologies, Tools and Applications

IGI Global Contains the latest research, case studies, theories, and methodologies within the field of wireless technologies.

## Networking and Telecommunications: Concepts, Methodologies, Tools, and Applications

## Concepts, Methodologies, Tools, and Applications

IGI Global "This multiple-volume publications exhibits the most up-to-date collection of research results and recent discoveries in the transfer of knowledge access across the globe"--Provided by publisher.

## Handbook of Research on Discrete Event Simulation Environments: Technologies and Applications

## Technologies and Applications

IGI Global "This book provides a comprehensive overview of theory and practice in simulation systems focusing on major breakthroughs within the technological arena, with particular concentration on the accelerating principles, concepts and applications"--Provided by publisher.

# Network Simulation Guide

LAP Lambert Academic Publishing **This book provides the specialists in the computer networking field with the necessary knowledge to understand and use a network simulation facilities. It begins, in chapter one, by defining the important terminologies and concepts in this field, then exploring the various mathematical methods to build a network simulator. Chapter two, gives an overview of the different simulation tools available nowadays together with their important features. Chapter three presents the details of the adopted simulation package in this book, OPNET IT GURU. In chapter four, the basic simulation strategies of the free academic version OPNET IT GURU is detailed. Finally, different lab experiments and case studies are illustrated to enrich reader experience. This book could be useful in teaching different courses, for both under and postgraduate levels, such as: computer networking, network simulation and computer networking laboratory.**

## Rick Gallahers MPLS Training Guide

### Building Multi Protocol Label Switching Networks

Elsevier **Rick Gallahers MPLS Training Guide introduces readers to mpls concepts, installation, migration, operation, inspection, and troubleshooting. It discusses specific router and switch platforms and includes such topics as frame-mode mpls, cell-mode mpls, label distribution protocol, tag distribution protocol, label distribution protocol migration, mpls configuration, traffic engineering, mpls vpns, mpls vpn deployment models, mpls vpn routing protocol support, multi-protocol bgp, mpls vpn configurations, mpls vpn integration, and mpls vpn management. Readers will find complete ready-to-use configurations for routers Shows how to implement MPLS traffic engineering on a core network and optimize traffic Great for users studying for Cisco's Implementing Cisco MPLS exam, 640-910 and written by a Cisco internetworking expert who knows everything about MPLS Includes coverage of Cisco Systems' newly released (October 7, 2002) Multiprotocol Label Switching (MPLS) Bandwidth Protection software package. The new architecture uses MPLS Traffic Engineering Fast Reroute and an offline application called Tunnel Builder Pro to increase resiliency at a network-wide level Includes updated coverage of MPLS and GMPLS**

# Learning Management System Technologies and Software Solutions for Online Teaching: Tools and Applications

## Tools and Applications

IGI Global "This book gives a general coverage of learning management systems followed by a comparative analysis of the particular LMS products, review of technologies supporting different aspect of educational process, and, the best practices and methodologies for LMS-supported course delivery"--Provided by publisher.

## Методы расчета показателей производительности сетей ЭВМ с неоднородным трафиком

Litres В монографии математическое моделирование рассматривается как средство системного анализа сложных систем. Изложены новые методы расчета показателей производительности сетей ЭВМ с неоднородным трафиком. Выводы и рекомендации основываются на реальных результатах и могут быть внедрены в практике системных администраторов и специалистов в области сетевых технологий предприятий, а также в процессе подготовки специалистов высшего профессионального образования по техническим специальностям в области информационных технологий.

# Network World

For more than 20 years, Network World has been the premier provider of information, intelligence and insight for network and IT executives responsible for the digital nervous systems of large organizations. Readers are responsible for designing, implementing and managing the voice, data and video systems their companies use to support everything from business critical applications to employee collaboration and electronic commerce.

# Intelligent Automation and Systems Engineering

Springer Science & Business Media Intelligent systems are required to facilitate the use of information provided by the internet and other computer based technologies. This book describes the state-of-the-art in Intelligent Automation and Systems Engineering. Topics covered include Intelligent decision making, Automation, Robotics, Expert systems, Fuzzy systems, Knowledge-based systems, Knowledge extraction, Large database management, Data analysis tools, Computational biology, Optimization algorithms, Experimental designs, Complex system identification, Computational modeling, Systems simulation, Decision modeling, and industrial applications.

# Testbeds and Research Infrastructure: Development of Networks and Communities

8th International ICST Conference, TridentCom 2012,  
Thessanoliiki, Greece, June 11-13, 2012, Revised

## Selected Papers

Springer This book constitutes the proceedings of the 8th International ICST Conference, TridentCom 2012, held in Thessaloniki, Greece, in June 2012. Out of numerous submissions the Program Committee finally selected 51 full papers. These papers cover topics such as future Internet testbeds, wireless testbeds, federated and large scale testbeds, network and resource virtualization, overlay network testbeds, management provisioning and tools for networking research, and experimentally driven research and user experience evaluation.

## Network World

For more than 20 years, Network World has been the premier provider of information, intelligence and insight for network and IT executives responsible for the digital nervous systems of large organizations. Readers are responsible for designing, implementing and managing the voice, data and video systems their companies use to support everything from business critical applications to employee collaboration and electronic commerce.

## Improving the Performance of Wireless LANs

### A Practical Guide

CRC Press While there are countless books on wireless networks, few actually quantify the key performance-limiting factors of wireless local area networks (WLANs) and describe various methods for improving WLAN performance. Fulfilling these needs, *Improving the Performance of Wireless LANs: A Practical Guide* provides both theoretical background and empirical

## Traffic and QoS Management in Wireless Multimedia



# Networks

## COST 290 Final Report

Springer Science & Business Media The current book provides a final report of activity performed by the COST 290 Action, "Traffic and QoS Management in Wireless Multimedia Networks," which ran from March 10, 2004, until June 3, 2008. After an introduction to the COST framework and the Action's survey time-frame and activities, the main part of the book addresses a number of technical issues, which are structured into several chapters. All those issues have been carefully investigated by the COST 290 community during the course of the project - the information presented in this book can be regarded as ultimate for each particular topic; every open research issue addressed in the book is described carefully, corresponding existing studies are analyzed and results achieved by the COST 290 community are presented and compared, and further research directions are defined and analyzed. Because the book covers a wide area of research addressing issues of modern wired and wireless networking at different layers, starting from the physical layer up to the application layer, it can be recommended to be used by researchers and students to obtain a comprehensive analysis on particular research topics including related areas, to obtain broad and ultimate referencing, and to be advised on current open issues. COST 290 is one of the Actions of the European COST Program. Founded in 1971, COST is an intergovernmental framework for European Cooperation in the field of Scientific and Technical Research, allowing the coordination of nationally funded research on a European level.

## Cisco PIX Firewalls

### Configure / Manage / Troubleshoot

Elsevier Umer Khan's first book, Cisco Security Specialist's Guide to PIX Firewalls, ISBN: 1931836639, has consistently maintained its spot as the #1 best-selling PIX book on amazon.com by providing readers with a clear, comprehensive, and independent introduction to PIX Firewall configuration. With the market for PIX Firewalls maintaining double digit growth and several major enhancements to both the PIX Firewall and VPN Client product lines, this book will have

enormous appeal with the audience already familiar with his first book. The Cisco Pix firewall is the #1 market leading firewall, owning 43% market share. Cisco is poised to release the newest, completely re-designed version 7 of the Pix operating system in the first quarter of 2004 "Cisco Pix Firewalls: configure | manage | troubleshoot" Covers all objectives on the new Cisco Pix certification exam, making this book the perfect study guide in addition to professional reference Umer Khan's first book "Cisco Security Specialist's Guide to PIX Firewall" has been the #1 market leading Cisco Pix book since it was published in 2002

# Proceedings of the Future Technologies Conference (FTC) 2018

## Volume 2

Springer The book, presenting the proceedings of the 2018 Future Technologies Conference (FTC 2018), is a remarkable collection of chapters covering a wide range of topics, including, but not limited to computing, electronics, artificial intelligence, robotics, security and communications and their real-world applications. The conference attracted a total of 503 submissions from pioneering researchers, scientists, industrial engineers, and students from all over the world. After a double-blind peer review process, 173 submissions (including 6 poster papers) have been selected to be included in these proceedings. FTC 2018 successfully brought together technology geniuses in one venue to not only present breakthrough research in future technologies but to also promote practicality and applications and an intra- and inter-field exchange of ideas. In the future, computing technologies will play a very important role in the convergence of computing, communication, and all other computational sciences and applications. And as a result it will also influence the future of science, engineering, industry, business, law, politics, culture, and medicine. Providing state-of-the-art intelligent methods and techniques for solving real-world problems, as well as a vision of the future research, this book is a valuable resource for all those interested in this area.

# Unlocking the Power of OPNET Modeler

Cambridge University Press For fast, easy modeling, this practical guide provides the essential information you need, plus step-by-step case studies and handy hints/tips.

## OPNET IoT Simulation

Springer Nature This is the first book offering an in-depth and comprehensive IoT network simulation, supported by OPNET tool. Furthermore, the book presents the simulations of IoT in general, not limited by OPNET. The authors provide rich OPNET IoT simulation codes, with detailed explanation regarding the functionalities of the model. These codes can facilitate readers' fast implementation, and the shared model can guide readers through developing their own research. This book addresses various versions of Internet of Things (IoT), including human-centric IoT, green IoT, Narrow band IoT, Smart IoT, IoT-Cloud integration. The introduced OPNET IoT simulation provides a comprehensive platform to simulate above-mentioned IoT systems. Besides, this book introduces OPNET semi-physical simulation in detail. Based on this technology, simulated IoT and practical cloud are seamlessly connected with each other. On top of this "IoT-cloud-integration" semi-physical simulation environment, various smart IoT applications can be realized.

## Managing Next Generation Networks and Services

### 10th Asia-Pacific Network Operations and Management Symposium, APNOMS 2007, Sapporo, Japan, October 10-12, 2007, Proceedings

Springer This book constitutes the refereed proceedings of the 9th Asia-Pacific Network Operations and Management Symposium, APNOMS 2007, held in Sapporo, Japan, October 2007. The 48 revised full papers and 30 revised short

papers cover management of distributed networks, network configuration and planning, network security management, sensor and ad-hoc networks, network monitoring, routing and traffic engineering, management of wireless networks and security on wireless networks.

## Data Analytics and Management

### Proceedings of ICDAM

Springer Nature This book includes original unpublished contributions presented at the International Conference on Data Analytics and Management (ICDAM 2020), held at Jan Wyzykowski University, Poland, during June 2020. The book covers the topics in data analytics, data management, big data, computational intelligence, and communication networks. The book presents innovative work by leading academics, researchers, and experts from industry which is useful for young researchers and students.

## Wireless Sensor Networks

### Concepts, Applications, Experimentation and Analysis

Springer This book focuses on the principles of wireless sensor networks (WSNs), their applications, and their analysis tools, with meticulous attention paid to definitions and terminology. This book presents the adopted technologies and their manufacturers in detail, making WSNs tangible for the reader. In introductory computer networking books, chapter sequencing follows the bottom-up or top-down architecture of the 7-layer protocol. This book addresses subsequent steps in this process, both horizontally and vertically, thus fostering a clearer and deeper understanding through chapters that elaborate on WSN concepts and issues. With such depth, this book is intended for a wide audience; it is meant to be a helper and motivator for senior undergraduates, postgraduates, researchers, and practitioners. It lays out important concepts and WSN-related applications; uses appropriate literature to back research and practical issues; and focuses on new trends. Senior undergraduate students can use it to familiarize themselves with conceptual foundations and practical project implementations. For graduate students and researchers, test beds

and simulators provide vital insights into analysis methods and tools for WSNs. Lastly, in addition to applications and deployment, practitioners will be able to learn more about WSN manufacturers and components within several platforms and test beds.

## Advances in Computing and Information Technology Proceedings of the Second International Conference on Advances in Computing and Information Technology (ACITY) July 13-15, 2012, Chennai, India -

Springer Science & Business Media **The international conference on Advances in Computing and Information technology (ACITY 2012) provides an excellent international forum for both academics and professionals for sharing knowledge and results in theory, methodology and applications of Computer Science and Information Technology. The Second International Conference on Advances in Computing and Information technology (ACITY 2012), held in Chennai, India, during July 13-15, 2012, covered a number of topics in all major fields of Computer Science and Information Technology including: networking and communications, network security and applications, web and internet computing, ubiquitous computing, algorithms, bioinformatics, digital image processing and pattern recognition, artificial intelligence, soft computing and applications. Upon a strength review process, a number of high-quality, presenting not only innovative ideas but also a founded evaluation and a strong argumentation of the same, were selected and collected in the present proceedings, that is composed of three different volumes.**

## Computer Networks

# A Systems Approach

**Elsevier Computer Networks: A Systems Approach, Fifth Edition, explores the key principles of computer networking, with examples drawn from the real world of network and protocol design. Using the Internet as the primary example, this best-selling and classic textbook explains various protocols and networking technologies. The systems-oriented approach encourages students to think about how individual network components fit into a larger, complex system of interactions. This book has a completely updated content with expanded coverage of the topics of utmost importance to networking professionals and students, including P2P, wireless, network security, and network applications such as e-mail and the Web, IP telephony and video streaming, and peer-to-peer file sharing. There is now increased focus on application layer issues where innovative and exciting research and design is currently the center of attention. Other topics include network design and architecture; the ways users can connect to a network; the concepts of switching, routing, and internetworking; end-to-end protocols; congestion control and resource allocation; and end-to-end data. Each chapter includes a problem statement, which introduces issues to be examined; shaded sidebars that elaborate on a topic or introduce a related advanced topic; What's Next? discussions that deal with emerging issues in research, the commercial world, or society; and exercises. This book is written for graduate or upper-division undergraduate classes in computer networking. It will also be useful for industry professionals retraining for network-related assignments, as well as for network practitioners seeking to understand the workings of network protocols and the big picture of networking. Completely updated content with expanded coverage of the topics of utmost importance to networking professionals and students, including P2P, wireless, security, and applications Increased focus on application layer issues where innovative and exciting research and design is currently the center of attention Free downloadable network simulation software and lab experiments manual available**

## Proceedings of 2nd International Conference on

# Communication, Computing and Networking

## ICCCN 2018, NITTTR Chandigarh, India

Springer The book provides insights from the 2nd International Conference on Communication, Computing and Networking organized by the Department of Computer Science and Engineering, National Institute of Technical Teachers Training and Research, Chandigarh, India on March 29-30, 2018. The book includes contributions in which researchers, engineers, and academicians as well as industrial professionals from around the globe presented their research findings and development activities in the field of Computing Technologies, Wireless Networks, Information Security, Image Processing and Data Science. The book provides opportunities for the readers to explore the literature, identify gaps in the existing works and propose new ideas for research.

## Build the Best Data Center Facility for Your Business

Cisco Systems A comprehensive guide to designing and operating reliable server environments Keep your data center cool, clean, scalable, and secure Learn the five principles of effective data center design Avoid the natural and man-made hazards that can jeopardize a data center site Learn how to lay out key infrastructure objects within the data center for greatest efficiency, from buffer zones to server rows Apply proven installation methods by studying sample illustrations of both overhead and under-floor systems Extract the best practices and design strategies for both in-room and standby electrical infrastructure Avoid accidental downtime, improve productivity, and ensure user safety Safeguard and streamline your network infrastructure with a well-organized physical hierarchy Understand the special challenges of retrofitting overburdened server environments Implement solutions from a wide array of sample illustrations and examples of essential data center signage Safeguard servers with operations standards for people working in or visiting the data center Download templates used by Cisco to design its data centers, customizable to square footage and geography Avoid excess construction costs by designing a data center that meets your needs today and for many years to come All data centers are unique, but they all share the same mission: to protect your company's valuable information. Build the Best Data Center Facility for Your Business answers your individual

questions in one flexible step-by-step reference guide. Benefit from the author's concise and practical approach to data center design and management. The author distills this complex topic by sharing his first-hand and worldwide experience and expertise. Regardless of your experience level, you can fill your knowledge gaps on how to safeguard your company's valuable equipment and intellectual property. This easy-to-navigate book is divided into two parts: Part I covers data center design and physical infrastructure details, and Part II covers data center management and operations. You can also access supplementary online materials for installation instructions, which include customizable data center design templates, written cabling specifications, and sample drawings. If you need a starting point for designing your first data center, regardless of size; if you need to prepare yourself with comprehensive strategies to retrofit or improve an existing one; or if you need proven methods to manage a data center for maximum productivity--this book is your readily accessible, comprehensive resource for answers and insights. Invest in the best future for your business by learning how to build and manage robust and productive data centers now. This book is part of the Networking Technology Series from Cisco Press, which offers networking professionals valuable information for constructing efficient networks, understanding new technologies, and building successful careers.

## Pharmaceutical Manufacturing Handbook

### Production and Processes

John Wiley & Sons This handbook features contributions from a team of expert authors representing the many disciplines within science, engineering, and technology that are involved in pharmaceutical manufacturing. They provide the information and tools you need to design, implement, operate, and troubleshoot a pharmaceutical manufacturing system. The editor, with more than thirty years' experience working with pharmaceutical and biotechnology companies, carefully reviewed all the chapters to ensure that each one is thorough, accurate, and clear.

## Proceedings of the International Conference on



# Transformations in Engineering Education

## ICTIEE 2014

Springer This book comprises the proceedings of the International Conference on Transformations in Engineering Education conducted jointly by BVB College of Engineering & Technology, Hubli, India and Indo US Collaboration for Engineering Education (IUCEE). This event is done in collaboration with International Federation of Engineering Education Societies (IFEES), American Society for Engineering Education (ASEE) and Global Engineering Deans' Council (GEDC). The conference is about showcasing the transformational practices in Engineering Education space.

## Wireless Networks For Dummies

John Wiley & Sons You've probably heard the expression, "It's time to cut the cord." Well, it may be time to "cut the cables" at your office and free yourself from your desk and computer. Wireless networks are the waves of the future—literally. **Wireless Networks For Dummies** guides you from design through implementation to ongoing protection of your system and your information so you can: Remain connected to the office in airports and hotels Access the Internet and other network resources in the lunchroom, conference room, or anywhere there's an access point Use your PDA or laptop to query your database from the warehouse or the boardroom Check e-mail wirelessly when you're on the road Get rid of the cable clutter in your office **Wireless Networks For Dummies** was coauthored by Barry D. Lewis, CISSP, and Peter T. Davis, who also coauthored **Computer Security For Dummies**. Barry Lewis is president of an information security consulting firm and an internationally known leader of security seminars. Peter Davis is founder of a firm specializing in the security, audit, and control of information. Together, they cut through the cables, clutter, and confusion and help you: Get off to a quick start and get mobile with IrDA (Infrared Data Association) and Bluetooth Perform a site survey and select the right standard, mode, access point, channel and antenna Check online to verify degree of interoperability of devices from various vendors Install clients and set up roaming Combat security threats such as war driving, jamming, hijacking, and man-in-the-middle attacks Implement security and controls such as MAC (Media Access Control) and protocol filtering, WEP (Wireless Equivalent

Privacy), WPA, (Wi-Fi Protected Access), EAP (Extensible Authentication Protocol), and VPN (Virtual Private Network) Set up multiple access points to form a larger wireless network Complete with suggestions of places to get connected, Web sites where you can get more information, tools you can use to monitor and improve security, and more, *Wireless Networks For Dummies* helps you pull the plug and go wireless!

# Proceedings of the International Conference on Recent Cognizance in Wireless Communication & Image Processing

## ICRCWIP-2014

Springer This volume comprises the proceedings of the International Conference on Recent Cognizance in Wireless Communication & Image Processing. It brings together content from academicians, researchers, and industry experts in areas of Wireless Communication and Image Processing. The volume provides a snapshot of current progress in computational creativity and a glimpse of future possibilities. The proceedings include two kinds of paper submissions: (i) regular papers addressing foundation issues, describing original research on creative systems development and modeling; and (ii) position papers describing work-in-progress or research directions for computational creativity. This work will be useful to professionals and researchers working in the core areas of wireless communications and image processing.

## Pharmaceutical Manufacturing Handbook

## Regulations and Quality

John Wiley & Sons With its coverage of Food and Drug Administration regulations, international regulations, good manufacturing practices, and process analytical technology, this handbook offers complete coverage of the regulations and quality control issues that govern pharmaceutical manufacturing. In addition, the book discusses quality assurance and validation, drug stability, and contamination control, all key aspects of pharmaceutical manufacturing that are heavily influenced by regulatory guidelines. The team of expert authors offer you advice based on their own firsthand experience in all phases of pharmaceutical manufacturing.

## Learning Management Systems and Instructional Design

### Best Practices in Online Education

IGI Global The technical resources, budgets, curriculum, and profile of the student body are all factors that play in implementing course design. Learning management systems administrate these aspects for the development of new methods for course delivery and corresponding instructional design. Learning Management Systems and Instructional Design: Best Practices in Online Education provides an overview on the connection between learning management systems and the variety of instructional design models and methods of course delivery. This book is a useful source for administrators, faculty, instructional designers, course developers, and businesses interested in the technological solutions and methods of online education.

## Computational Intelligence in Wireless Sensor Networks

### Recent Advances and Future Challenges

Springer This book emphasizes the increasingly important role that Computational Intelligence (CI) methods are playing in solving a myriad of entangled Wireless Sensor Networks (WSN) related problems. The book serves as a guide for

surveying several state-of-the-art WSN scenarios in which CI approaches have been employed. The reader finds in this book how CI has contributed to solve a wide range of challenging problems, ranging from balancing the cost and accuracy of heterogeneous sensor deployments to recovering from real-time sensor failures to detecting attacks launched by malicious sensor nodes and enacting CI-based security schemes. Network managers, industry experts, academicians and practitioners alike (mostly in computer engineering, computer science or applied mathematics) benefit from the spectrum of successful applications reported in this book. Senior undergraduate or graduate students may discover in this book some problems well suited for their own research endeavors.

## Data Driven Approach Towards Disruptive Technologies

### Proceedings of MIDAS 2020

[Springer Nature](#) This book is a compilation of peer-reviewed papers presented at the International Conference on Machine Intelligence and Data Science Applications, organized by the School of Computer Science, University of Petroleum & Energy Studies, Dehradun, India, during 4-5 September 2020. The book addresses the algorithmic aspect of machine intelligence which includes the framework and optimization of various states of algorithms. Variety of papers related to wide applications in various fields like data-driven industrial IoT, bioinformatics, network and security, autonomous computing and various other aligned areas. The book concludes with interdisciplinary applications like legal, health care, smart society, cyber-physical system and smart agriculture. All papers have been carefully reviewed. The book is of interest to computer science engineers, lecturers/researchers in machine intelligence discipline and engineering graduates.

## Advances in Computing and Data Sciences

# First International Conference, ICACDS 2016, Ghaziabad, India, November 11-12, 2016, Revised Selected Papers

Springer This book constitutes the refereed proceedings of the First International Conference on Advances in Computing and Data Sciences, ICACDS 2016, held in Ghaziabad, India, in November 2016. The 64 full papers were carefully reviewed and selected from 502 submissions. The papers are organized in topical sections on Advanced Computing; Communications; Informatics; Internet of Things; Data Sciences.

# Information Systems Design and Intelligent Applications Proceedings of Second International Conference INDIA 2015, Volume 1

Springer The second international conference on Information Systems Design and Intelligent Applications (INDIA - 2015) held in Kalyani, India during January 8-9, 2015. The book covers all aspects of information system design, computer science and technology, general sciences, and educational research. Upon a double blind review process, a number of high quality papers are selected and collected in the book, which is composed of two different volumes, and covers a variety of topics, including natural language processing, artificial intelligence, security and privacy, communications, wireless and sensor networks, microelectronics, circuit and systems, machine learning, soft computing, mobile computing and applications, cloud computing, software engineering, graphics and image processing, rural engineering, e-commerce, e-governance, business computing, molecular computing, nano-computing, chemical computing, intelligent computing for GIS and remote sensing, bio-informatics and bio-computing. These fields are not only limited to computer researchers but also include mathematics, chemistry, biology, bio-chemistry, engineering, statistics, and all others in which computer techniques may assist.

# Applications of Soft Computing

## From Theory to Praxis

Springer Science & Business Media **WSC2008Chair's Welcome Message Dear Colleague, The World Soft Computing (WSC) conference is an annual international online conference on applied and theoretical soft computing technology. This WSC 2008 is the thirteenth conference in this series and it has been a great success. We received a lot of excellent paper submissions which were peer-reviewed by an international team of experts. Only 60 papers out of 111 submissions were selected for online publication. This assured a high quality standard for this online conference. The corresponding online statistics are a proof of the great world-wide interest in the WSC 2008 conference. The conference website had a total of 33,367 different human user accesses from 43 countries with around 100 visitors every day, 151 people signed up to WSC to discuss their scientific disciplines in our chat rooms and the forum. Also audio and slide presentations allowed a detailed discussion of the papers. The submissions and discussions showed that there is a wide range of soft computing applications to date. The topics covered by the conference range from applied to theoretical aspects of fuzzy, neuro-fuzzy and rough sets over to neural networks to single and multi-objective optimisation. Contributions about particle swarm optimisation, gene expression programming, clustering, classification, support vector machines, quantum evolution and agent systems have also been received. One whole session was devoted to soft computing techniques in computer graphics, imaging, vision and signal processing.**

## International Conference on Innovative Computing and Communications

# Proceedings of ICICC 2021, Volume 3

Springer Nature **This book includes high-quality research papers presented at the Fourth International Conference on Innovative Computing and Communication (ICICC 2021), which is held at the Shaheed Sukhdev College of Business Studies, University of Delhi, Delhi, India, on February 20-21, 2021. Introducing the innovative works of scientists, professors, research scholars, students and industrial experts in the field of computing and communication, the book promotes the transformation of fundamental research into institutional and industrialized research and the conversion of applied exploration into real-time applications.**