

Fuzzy Logic And Applications 5th International Workshop Will 2003 Naples Italy October 9 11 2003 Revised Selected Papers Lecture Notes In Computer Science

Technology has dramatically changed the way in which knowledge is shared within and outside of traditional classroom settings. The application of fuzzy logic to new forms of technology-centered education has presented new opportunities for analyzing and modeling learner behavior. Fuzzy Logic-Based Modeling in Collaborative and Blended Learning explores the application of the fuzzy set theory to educational settings in order to analyze the learning process, gauge student feedback, and enable quality learning outcomes. Focusing on educational data analysis and modeling in collaborative and blended learning environments, this publication is an essential reference source for educators, researchers, educational administrators and designers, and IT specialists. This premier reference monograph presents key research on educational data analysis and modeling through the integration of research on advanced modeling techniques, educational technologies, fuzzy concept mapping modeling, neuro-fuzzy learning management systems, and quality of interactivity.

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.

Fuzzy logic, which is based on the concept of fuzzy set, has enabled scientists to create models under conditions of imprecision, vagueness, or both at once. As a result, it has now found many important applications in almost all sectors of human activity, becoming a complementary feature and supporter of probability theory, which is suitable for modeling situations of uncertainty derived from randomness. Fuzzy mathematics has also significantly developed at the theoretical level, providing important insights into branches of traditional mathematics like algebra, analysis, geometry, topology, and more. With such widespread applications, fuzzy sets and logic are an important area of focus in mathematics. The Handbook of Research on Advances and Applications of Fuzzy Sets and Logic studies recent theoretical advances of fuzzy sets and numbers, fuzzy systems, fuzzy logic and their generalizations, extensions, and more. This book also explores the applications of fuzzy sets and logic applied to science, technology, and everyday life to further provide research on the subject. This book is ideal for mathematicians, physicists, computer specialists, engineers, practitioners, researchers, academicians, and students who are looking to learn more about fuzzy sets, fuzzy logic, and their applications.

Edited in collaboration with FoLLI, the Association of Logic, Language and Information, this book constitutes the refereed proceedings of the 5th Indian Conference on Logic and Its Applications, ICLA 2013, held in Chennai, India, in January 2013. The 15 revised full papers presented together with 7 invited talks were carefully reviewed and selected from numerous submissions. The papers cover the topics related to pure and applied logic, foundations and philosophy of mathematics and the sciences, set theory, model theory, proof theory, areas of theoretical computer science, artificial intelligence and other disciplines which are of direct interest to mathematical and philosophical research.

Proceedings of the Eighth International Conference on Management Science and Engineering Management Computational Intelligence in Fault Diagnosis

FUZZY LOGIC WITH ENGINEERING APPLICATIONS, 3RD ED

Time-Varying Waveform Distortions in Power Systems Introduction to Fuzzy Logic using MATLAB

Handbook of Research on Advances and Applications of Fuzzy Sets and Logic

"Fuzzy Engineering and Operations Research" is the edited outcome of the 5th International Conference on Fuzzy Information and Engineering (ICFIE2011) held during Oct. 15-17, 2011 in Chengdu, China and by the 1st academic conference in establishment of Guangdong Province Operations Research Society (GDORS) held on Oct. 20, 2011 in Guangzhou, China. The 5th ICFIE2011, built on the success of previous conferences, and the GDORC, first held, are major Symposiums, respectively, for scientists, engineers practitioners and Operation Research (OR) researchers presenting their updated results, developments and applications in all areas of fuzzy information and engineering and OR. It aims to strengthen relations between industry research laboratories and universities, and to create a primary symposium for world scientists in Fuzziology and OR fields. The book contains 62 papers and is divided into five main parts: "Fuzzy Optimization, Logic and Information"; "The mathematical Theory of Fuzzy Systems"; "Fuzzy Engineering Applications and Soft Computing Methods"; "OR and Fuzziology" and "Guess and Review".

This book constitutes the refereed proceedings of the International Conference on Computational Intelligence held in Dortmund, Germany, as the 5th Fuzzy Days, in April 1997. Besides three invited contributions, the book presents 53 revised full papers selected from a total of 130 submissions. Also included are 35 posters documenting a broad scope of applications of computational intelligence techniques in a variety of areas. The volume addresses all current issues in computational intelligence, e.g. fuzzy logic, fuzzy control, neural networks, evolutionary algorithms, genetic programming, neuro-fuzzy systems, adaptation and learning, machine learning, etc. In his sequel to the bestselling, "Fuzzy Systems Handbook", the foremost authority on the applications of fuzzy logic presents actual models and case studies from business and industry. This hands-on book/disk package contains fuzzy modelling concepts and software that will be used throughout the industry.

This book constitutes the refereed proceedings of the 5th International Symposium on Rules, RuleML 2011 - Europe, held in Barcelona, Spain, in July 2011 - collocated with the 22nd International Joint Conference on Artificial Intelligence, IJCAI 2011. It is the first of two RuleML events that take place in 2011. The second RuleML Symposium - RuleML 2011 - America - will be held in Fort Lauderdale, FL, USA, in November 2011. The 18 revised full papers, 8 revised short papers and 3 invited track papers presented together with the abstracts of 2 keynote talks were carefully reviewed and selected from 58 submissions. The papers are organized in the following topical sections: rule-based distributed/multi-agent systems; rules, agents and norms; rule-based event processing and reaction rules; fuzzy rules and uncertainty; rules and the semantic Web; rule learning and extraction; rules and reasoning; and rule-based applications.

5th International Symposium on Data Mining Applications

International Conference on Information Engineering and Applications (IEA 2011)

Simulation of Control Systems

Theory and Applications

5th International Symposium, RuleML 2011 - Europe, Barcelona, Spain, July 19-21, 2011, Proceedings

Methodologies For The Conception, Design And Application Of Soft Computing - Proceedings Of The 5th International Conference On Soft Computing And Information/Intelligent Systems (In 2 Volumes)

A uniquely practical DSP text, this book gives a thorough understanding of the principles and applications of DSP with a minimum of mathematics, and provides the reader with an introduction to DSP applications in telecoms, control engineering and measurement and data analysis systems. The new edition contains:

Expanded coverage of the basic concepts to aid understanding • *New sections on filter synthesis, control theory and contemporary topics of speech and image recognition* • *Full solutions to all questions and exercises in the book* *Assuming the reader already has some prior knowledge of signal theory, this textbook will be highly suitable for undergraduate and postgraduate students in electrical and electronic engineering taking introductory and advanced courses in DSP, as well as courses in communications and control systems engineering. It will also prove an invaluable introduction to DSP and its applications for the professional engineer. Expanded coverage of the basic concepts to aid understanding, along with a wide range of DSP applications New textbook features included throughout, including learning objectives, summary sections, exercises and worked examples to increase accessibility of the text Full solutions to all questions and exercises included in the book*

Artificial intelligence (AI) is a dynamic field that is constantly expanding into new application areas, discovering new research challenges and facilitating the development of innovative products. Today's information overload and rapid technological advancement raise needs for effective management of the complexity and heterogeneity of knowledge, for intelligent and adaptable man-machine interfaces and for products and applications that can learn and take decisions by themselves. Although the mystery of human-level intelligence has just started to be uncovered in various interdisciplinary fields, AI is inspired by the respective scientific areas to explore certain theories and models that will provide the methods and techniques to design and develop human-centered applications that address the above-mentioned needs. This volume contains papers selected for presentation at the 5th Hellenic Conference on Artificial Intelligence (SEIN 2008), the official meeting of the Hellenic Society for Artificial Intelligence (SEIN). Previous conferences were held at the University of Piraeus (1996), at the Aristotle University of Thessaloniki (2002), at the University of the Aegean (2004) and at the Institute of Computer Science at FORTH (Foundation for Research and Technology - Hellas) and the University of Crete (2006).

This volume of Advances in Intelligent and Soft Computing contains accepted papers presented at SOCO 2010 held in the beautiful and historic city of Guimarães, Portugal, June 2010. The global purpose of SOCO conferences has been to provide a broad and interdisciplinary forum for soft computing and associated paradigms, which are playing increasingly important roles in an important number of industrial and environmental applications fields. 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. This workshop is mainly focused on its industrial and environmental applications. SOCO 2010 is the 5th International Workshop on Soft Computing Models in Industrial Applications and provides interesting opportunities to present and discuss the latest theoretical advances and real world applications in this multidisciplinary research field. This volume presents the papers accepted for the 2010 edition, both for the main event and the Special Sessions. SOCO 2010 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. Special Sessions that emphasize on multi-disciplinary and transversal aspects, as well as cutting-edge topics were especially encouraged and welcome. SOCO 2010 included a total of 3 Special Sessions: Ensemble Learning and Formation Fusion for Industrial Applications; Soft Computing for Service Management; Hybrid Intelligent Systems and Applications.

This volume investigates simulation and computer-aided control system designs. The book covers the use of models and program packages, their theoretical aspects and practical applications, and uses illustrative case studies to give a comprehensive view of this fast developing science.

5th International Workshop, WILF 2003, Naples, Italy, October 9-11, 2003, Revised Selected Papers

International Conference, ICICA 2010, Tangshan, China, October 15-19, 2010, Proceedings

AI '92 - Proceedings of The 5th Australian Joint Conference On Artificial Intelligence

Soft Computing Models in Industrial and Environmental Applications, 5th International Workshop (SOCO 2010)

Computational Intelligence. Theory and Applications

Fuzzy Logic and Applications

This volume is devoted to the main areas of mathematical logic and applications to computer science. There are articles on weakly ω -minimal theories, algorithmic complexity of relations, models within the computable model theory, hierarchies of randomness tests, computable numberings, and complexity problems of minimal unsatisfiable formulas. The problems of characterization of the deduction-detachment theorem, Π_1 -induction, completeness of Leśniewski's systems, and reduction calculus for the satisfiability problem are also discussed. The coverage includes the answer to Kanovei's question about the upper bound for the complexity of equivalence relations by convergence at infinity for continuous functions. The volume also gives some applications of the book to the problems of fuzzy logic control, the full collection of positive examples and some negative data, the effects of random negative data, methods of formal specification and verification on the basis of model theory and multiple-valued logics, interval fuzzy algebraic systems, the problems of information exchange among agents on the base topological structures, and the predictions provided by inductive theories.

The volume Software Engineering Perspectives and Application in Intelligent Systems presents new approaches and methods to real-world problems, and in particular, exploratory research that describes novel approaches in the field of Software Engineering. Particular emphasis is laid on modern trends in selected fields of interest. New algorithms or methods in a variety of fields are also presented. The 5th Computer Science On-line Conference (CSOC 2016) is intended to provide an international forum for discussions on the latest research results in all areas related to Computer Science. The addressed topics are the theoretical aspects and applications of Computer Science, Artificial Intelligences, Cybernetics, Automation Control Theory and Software Engineering.

The book contains select proceedings of the International Conference on Smart Grid Energy Systems and Control (SGESC 2021). The proceedings is divided into 03 volumes, and this volume focuses on adaptive control and intelligent sensors, wide-area measurements, and applications in the smart grid. This book includes papers on topics such as SMART sensors, vision based applications, smart meters, and the Internet of Things (IIoT), Machine Learning, Remote sensing, Telemetry, and its applications in automated vehicle control. This book is a unique collection of chapters from different areas with a common theme and will be immensely useful to academic researchers and practitioners in the industry. This book presents the most recent concerns and research results in industrial fault diagnosis using intelligent techniques. It focuses on computational intelligence applications to fault diagnosis with real-world applications used in different chapters to validate the different diagnosis methods. The book includes one chapter dealing with a novel coherent fault diagnosis distributed methodology for complex systems.

A Model-Based Approach

SYNTHESIS AND APPLICATIONS (WITH CD)

Artificial Intelligence: Theories, Models and Applications

Analysis and Synthesis of Fuzzy Control Systems

Mathematical Logic in Asia

Proceedings of the 5th Computer Science On-line Conference 2016 (CSOC2016), Vol 2

This is the Proceedings of the Eighth International Conference on Management Science and Engineering Management (ICMSEM) held from July 25 to 27, 2014 at Universidade Nova de Lisboa, Lisbon, Portugal and organized by International Society of Management Science and Engineering Management (ISMSEM), Sichuan University (Chengdu, China) and Universidade Nova de Lisboa (Lisbon, Portugal). The goals of the conference are to foster international research collaborations in Management Science and Engineering Management as well as to provide a forum to present current findings. A total number of 138 papers from 14 countries are selected for the proceedings by the conference scientific committee through rigorous referee review. The selected papers in the first volume are focused on Intelligent System and Management Science covering areas of Intelligent Systems, Decision Support Systems, Manufacturing and Supply Chain Management.

This book presents recent research in intelligent and fuzzy technologies on digital transformation and the new normal, the state to which economies, societies, etc. settle following a crisis bringing us to a new environment. Digital transformation and the new normal-appearing in many areas such as digital economy, digital finance, digital government, digital health, and digital education are the main scope of this book. The readers can benefit from this book for preparing for a digital "new normal" and maintaining a leading position in both manufacturing and service companies. Digitizing an industrial company is a challenging process, which involves rethinking established structures, processes, and steering mechanisms presented in this book. The intended readers are intelligent and fuzzy systems researchers, lecturers, M.Sc., and Ph.D. students studying digital transformation and new normal. The book covers fuzzy logic theory and applications, heuristics, and metaheuristics from optimization to machine learning, from quality management to risk management, making the book an excellent source for researchers.

Fuzzy logic control (FLC) has proven to be a popular control methodology for many complex systems in industry, and is often used with great success as an alternative to conventional control techniques. However, because it is fundamentally model free, conventional FLC suffers from a lack of tools for systematic stability analysis and controller design. To address this problem, many model-based fuzzy control approaches have been developed, with the fuzzy dynamic model or the Takagi and Sugeno (T-S) fuzzy model-based approaches receiving the greatest attention. Analysis and Synthesis of Fuzzy Control Systems: A Model-Based Approach offers a unique reference devoted to the systematic analysis and synthesis of model-based fuzzy control systems. After giving a brief review of the varieties of FLC, including the T-S fuzzy model-based control, it fully explains the fundamental concepts of fuzzy sets, fuzzy logic, and fuzzy systems. This enables the book to be self-

contained and provides a basis for later chapters, which cover: T-S fuzzy modeling and identification via nonlinear models or data; Stability analysis of T-S fuzzy systems; Stabilization controller synthesis as well as robust H_∞ and observer and output feedback controller synthesis; Robust controller synthesis of uncertain T-S fuzzy systems; Time-delay T-S fuzzy systems; Fuzzy model predictive control; Robust fuzzy filtering; Adaptive control of T-S fuzzy systems; A reference for scientists and engineers in the area of fuzzy control systems. The book also contains a number of chapters on fuzzy logic control that are elegantly combined and further developed so that disambiguating and further development of conventional FLC can be avoided and the horizon of conventional control technology greatly extended. Many chapters feature application simulation examples and practical numerical examples based on MATLAB.

Special Features: New edition of a classic text brought up-to-date with the latest advances in the areas of fuzzy logic. Includes abundant new illustrations and examples using MATLAB code constituting an invaluable tool for students as well as for self-study by practicing engineers. Introduces new material on expansions of the MLFE method using genetic algorithms, cognitive mapping, fuzzy agent-based models and total uncertainty. Features completely revised end-of-chapter problems. Companion website with MATLAB code examples and instructors solutions set. About The Book: This new edition features the latest advances in the field including material on expansion of the MLFE method using genetic algorithms, cognitive mapping, fuzzy agent-based models and total uncertainty. Redundant or obsolete topics have been removed, resulting in a more concise yet inclusive text that will ensure the book retains its broad appeal at the forefront of the literature. Fuzzy Logic with Engineering Applications, 3rd Edition is oriented mainly towards methods and techniques. Every chapter has been revised, featuring new illustrations and examples throughout. Supporting MATLAB code is downloadable at www.wileyurope.com/gofuzzylogic. This will benefit student learning in all basic operations, the generation of membership functions, and the specialized applications in the later chapters of the book, providing an invaluable tool for students as well as for self-study by practicing engineers.

Fuzzy Logic with Engineering Applications

Fuzzy Engineering and Operations Research

Proceedings of the 5th International Conference on Big Data and Internet of Things

5th International Conference on Man-Machine Interactions, ICMMI 2017 Held at Kraków, Poland, October 3-6, 2017

Hybrid Intelligent Systems in Control, Pattern Recognition and Medicine

This Proceedings book provides essential insights into the current state of research in the field of human-computer interactions. It presents the outcomes of the International Conference on Man-Machine Interactions (ICMMI 2017), held on October 3-6, 2017, in Cracow, Poland, which offers a unique international platform for researchers and practitioners to share cutting-edge developments related to technologies, algorithms, tools and systems focused on the means by which humans interact and communicate with computers. This book is the 5th edition in the series and includes a unique selection of high-quality, original papers highlighting the latest theoretical and practical research on technologies, applications and challenges encountered in the rapidly evolving new forms of human-machine relationships. Major research topics covered include human-computer interfaces, bio-data analysis and mining, image analysis and signal processing, decision support and expert systems, pattern recognition, algorithms and optimisations, computer networks, and data management systems. As such, the book offers a valuable resource for researchers in academia, industry and other fields whose work involves man-machine interactions.

This book is an excellent starting point for any curriculum in fuzzy systems fields such as computer science, mathematics, business/economics and engineering. It covers the basics leading to: fuzzy clustering, fuzzy pattern recognition, fuzzy database, fuzzy image processing, soft computing, fuzzy applications in operations research, fuzzy decision making, fuzzy rule based systems, fuzzy systems modeling, fuzzy mathematics. It is not a book designed for researchers – it is where you really learn the "basics" needed for any of the above-mentioned applications. It includes many figures and problem sets at the end of sections.

This book provides comprehensive introduction to a consortium of technologies underlying soft computing, an evolving branch of computational intelligence. The constituent technologies discussed comprise neural networks, fuzzy logic, genetic algorithms, and a number of hybrid systems which include classes such as neuro-fuzzy, fuzzy-genetic, and neuro-genetic systems. The hybridization of the technologies is demonstrated on architectures such as Fuzzy-Back-propagation Networks (NN-FL), Simplified Fuzzy ARTMAP (NN-FL), and Fuzzy Associative Memories. The book also gives an exhaustive discussion of FL-GA hybridization. Every architecture has been discussed in detail through illustrative examples and applications. The algorithms have been presented in pseudo-code with a step-by-step illustration of the same in problems. The applications, demonstrative of the potential of the architectures, have been chosen from diverse disciplines of sciences and engineering. This book with a wealth of information that is clearly presented and illustrated by many examples and applications is designed for use as a text for courses in soft computing at both the senior undergraduate and first-year post-graduate engineering levels. It should also be of interest to researchers and technologists desirous of applying soft computing technologies to their respective fields of work.

This proceedings contains papers presented at the 31st International Conference on Coastal Engineering, which has held in Hamburg, Germany (31 August - 5 September 2008). The proceeding is divided into five parts: Waves; Long Waves, Nearshore Currents, and Swash; Sediment Transport and Morphology; Coastal Management, Environment, and Risk; and Coastal Structures. The papers cover a broad range of topics including theory, numerical and physical modeling, field measurements, case studies, design, and management. Coastal Engineering 2008 provides coastal engineers, scientists, and planners, with state-of-the-art information on coastal engineering and coastal processes.ForewordForeword (56k)/a

5th Hellenic Conference on AI, SETN 2008, Syros, Greece, October 2-4, 2008, Proceedings

Information Engineering and Applications

Software Engineering Perspectives and Application in Intelligent Systems

Practical Applications of Soft Computing in Engineering

Focused on Intelligent System and Management Science

Computational Intelligence Systems for Applied Research

This book constitutes the proceedings of the International Conference on Information Computing and Applications, held in Tangshan, China, in October 2010.

In past twenty years or so, information technology has influenced and changed every aspect of our lives and our cultures. Without various IT-based applications, we would find it difficult to keep information stored securely, to process information and business efficiently, and to communicate information conveniently. In the future world, ITS and information engineering will play a very important role in convergence of computing, communication, business and all other computational sciences and application and it also will influence the future world's various areas, including science, engineering, industry, business, law, politics, culture and medicine. The International Conference on Information Engineering and Applications (IEA) 2011 is intended to foster the dissemination of state-of-the-art research in information and business areas, including their models, services, and novel applications associated with their utilization. International Conference on Information Engineering and Applications (IEA) 2011 is organized by Chongqing Normal University, Chongqing University, Shanghai Jiao Tong University, Nanyang Technological University, University of Michigan and the Chongqing University of Arts and Sciences, and is sponsored by National Natural Science Foundation of China (NSFC). The objective of IEA 2011 is to will provide a forum for engineers and scientists in academia, industry, and government to address the most innovative research and development. Information Engineering and Applications provides a summary of this conference including contributions for key speakers on subjects such as technical challenges, social and economic issues, and ideas, results and current work on all aspects of advanced information and business intelligence.

The first edition of Fuzzy Logic with Engineering Applications (1995) was the first classroom text for undergraduates in the field. Now updated for the second time, this new edition features the latest advances in the field including material on expansion of the MLFE method using genetic algorithms, cognitive mapping, fuzzy agent-based models and total uncertainty. Redundant or obsolete topics have been removed, resulting in a more concise yet inclusive text that will ensure the book retains its broad appeal at the forefront of the literature. Fuzzy Logic with Engineering Applications, 3rd Edition is oriented mainly towards methods and techniques. Every chapter has been revised, featuring new illustrations and examples throughout. Supporting MATLAB code is downloadable at www.wileyurope.com/gofuzzylogic. This will benefit student learning in all basic operations, the generation of membership functions, and the specialized applications in the later chapters of the book, providing an invaluable tool for students as well as for self-study by practicing engineers.

What is fuzzy logic?–a system of concepts and methods for exploring modes of reasoning that are approximate rather than exact. While the engineering community has appreciated the advances in understanding using fuzzy logic for quite some time, fuzzy logic's impact in non-engineering disciplines is only now being recognized. The authors of Fuzzy Logic in Geology attend to this growing interest in the subject and introduce the use of fuzzy set theory in a style geoscientists can understand. This is followed by individual chapters on topics relevant to earth scientists: sediment modeling, fracture detection, reservoir characterization, clustering in geophysical data analysis, ground water movement, and time series analysis. George Kler is the Distinguished Professor of Systems Science and Director of the Center for Intelligent Systems, Fellow of the IEEE and IFSA, editor of nine volumes, editorial board member of 18 journals, and author or co-author of 16 books Foreword by the inventor of fuzzy logic– Professor Lotfi Zadeh

Information Computing and Applications, Part I

International Conference, 5th Fuzzy Days, Dortmund, Germany, April 28-30, 1997 Proceedings

Man-Machine Interactions 5

Selected Papers from the IFAC Symposium, Vienna, Austria, 22-26 September, 1986

Intelligent and Fuzzy Systems

Digital Signal Processing and Applications

A comprehensive review of analytical signal processing techniques applied to power systems and power quality applications. This reference book is unique in addressing time-varying waveform and harmonic distortions. It details many different approaches, pooling cutting edge material from university lecturers and practising power engineers to provide a wide spectrum of expertise. Divided into clear sections, the book discusses a range of topics including...current and voltage variations; standards and measurement issues; advanced techniques such as spectral, time-frequency, probabilistic; and further methods, such as independent component analysis, and fuzzy logic. Case studies, real world data and examples (including basic application examples and sample waves from industrial sites) supplement the theory and demonstrate the methods shown. With extensive appendices in addition, this book is of great value to power systems, utility, maintenance and instrumentation engineers. It is also a useful source of information for researchers and consultants, university professors and graduate students in power systems and power quality areas.

Soft computing has been presented not only with the theoretical developments but also with a large variety of realistic applications to consumer products and industrial systems. Application of soft computing has provided the opportunity to integrate human-like vagueness and real-life uncertainty into an otherwise hard computer program. This book highlights some of the recent developments in practical applications of soft computing in engineering problems. All the chapters have been sophisticatedly designed and revised by international experts to achieve wide but in-depth coverage. Contents:Automatic Detection of Microcalcifications in Mammograms Using a Fuzzy Classifier (A P Drijjarera et al);Predictive Fuzzy Model for Control of an Artificial Muscle (P B Petrovi);Evolutionary Computation for Information Retrieval Based on User Preference (H-G Kim & S-B Cho);Fuzzy Logic and Neural Networks Approach – A Way to Improve Overall Performance of Integrated Heating Systems (E Entchev);Design and Tuning a Neurofuzzy Power System Stabilizer Using Genetic Algorithms (A Atzalan & D A Linkens);An Application of Logic Programs with Soft Computing Aspects to Fault Diagnosis in Digital Circuits (H Sakai et al);Determination of the Motion Parameters from the Perspective Projection of a Triangle (M M Sein & H Hamad);and other papers Readership: Graduate students, industrial researchers and academics in fuzzy logic, software engineering, neural networks and artificial intelligence. Keywords:Soft Computing;Neuro-Fuzzy;Choquet Integral;Fuzzy Control;Genetic Algorithm;Information Retrieval;Pattern Recognition;Power System;Emergency Management;Fault Diagnosis

Fuzzy Logic and Applications5th International Workshop, WILF 2003, Naples, Italy, October 9-11, 2003, Revised Selected PapersSpringer Science & Business Media

This book provides a broad-ranging, but detailed overview of the basics of Fuzzy Logic. The fundamentals of Fuzzy Logic are discussed in detail, and illustrated with various solved examples. The book also deals with applications of Fuzzy Logic, to help readers more fully understand the concepts involved. Solutions to the problems are programmed using MATLAB 6.0, with simulated results. The MATLAB Fuzzy Logic toolbox is provided for easy reference.

NEURAL NETWORKS, FUZZY LOGIC AND GENETIC ALGORITHM

Fuzzy Logic in Geology

Fuzzy Logic Theory and Applications

Control and Measurement Applications for Smart Grid

An Introduction to Fuzzy Logic and Fuzzy Sets

5th International Conference, ICLA 2013, Chennai, India, January 10-12, 2013, Proceedings

The 5th Symposium on Data Mining Applications (SDMA 2018) provides valuable opportunities for technical collaboration among data mining and machine learning researchers in Saudi Arabia, Gulf Cooperation Council (GCC) countries and the Middle East region. This book gathers the proceedings of the SDMA 2018. All papers were peer-reviewed based on a strict policy concerning the originality, significance to the area, scientific vigor and quality of the contribution, and address the following research areas: • Applications: Applications of data mining in domains including databases, social networks, web, bioinformatics, finance, healthcare, and security. • Algorithms: Data mining and machine learning foundations, algorithms, models, and theory. • Text Mining: Semantic analysis and mining text in Arabic, semi-structured, streaming, multimedia data. • Framework: Data mining frameworks, platforms and systems implementation. • Visualizations: Data visualization and modeling.

Explore the diverse electrical engineering application of polymer composite materials with this in-depth collection edited by leaders in the field! Polymer Composites for Electrical Engineering delivers a comprehensive exploration of the fundamental principles, state-of-the-art research, and future challenges of polymer composites. Written from the perspective of electrical engineering applications, like electrical and thermal energy storage, high temperature applications, fire retardance, power cables, electric stress control, and others, the book covers all major application branches of these widely used materials. Rather than focus on polymer composite materials themselves, the distinguished editors have chosen to collect contributions from industry leaders in the area of real and practical electrical engineering applications of polymer composites. The books relevance will only increase as advanced polymer composites receive more attention and interest in the area of advanced electronic devices and electric power equipment. Unique amongst its peers, Polymer Composites for Electrical Engineering offers readers a collection of practical and insightful materials that will be of great interest to both academic and industrial audiences. Those resources include: A comprehensive discussion of glass fiber reinforced polymer composites for power equipment, including GIS, bushing, transformers, and more) Explorations of polymer composites for capacitors, outdoor insulation, electric stress control, power cable insulation, electrical and thermal energy storage, and high temperature applications A treatment of semi-conductive polymer composites for power cables in-depth analysis of fire-retardant polymer composites for electrical engineering An examination of polymer composite conductors Perfect for postgraduate students and researchers working in the fields of electrical, electronic, and polymer engineering, Polymer Composites for Electrical Engineering will also earn a place in the libraries of those working in the areas of composite materials, energy science and technology, and nanotechnology.

This book describes the latest advances in fuzzy logic, neural networks and optimization algorithms, as well as their hybrid combinations, and their applications in areas such as: intelligent control and robotics, pattern recognition, medical diagnosis, time series prediction, and optimization of complex problems. The book is divided into five main parts. The first part proposes new concepts and algorithms based on type-1 and type-2 fuzzy logic and their applications; the second explores new concepts and algorithms in neural networks and fuzzy logic applied to recognition. The third part examines the theory and practice of meta-heuristics in various areas of application, while the fourth highlights diverse applications of fuzzy logic, neural networks and hybrid intelligent systems in medical contexts. Finally, the fifth part focuses on applications of fuzzy logic, neural networks and meta-heuristics to robotics problems.

Digital Acceleration and The New Normal - Proceedings of the INFUS 2022 Conference, Volume 1

Fuzzy Logic for Business and Industry

Fuzzy Sets and Fuzzy Logic

Selected Proceedings of SGESC 2021

Fuzzy Logic-Based Modeling in Collaborative and Blended Learning

Proceedings of the 9th Asian Logic Conference, Novosibirsk, Russia, 16-19 August 2005