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Advances in Communication and Computational Technology - Gurdeep Singh Hura 2020-08-13

This book presents high-quality peer-reviewed papers from the International Conference on Advanced Communication and Computational Technology (ICACCT) 2019 held at the National Institute of Technology, Kurukshetra, India. The contents are broadly divided into four parts: (i) Advanced Computing, (ii) Communication and Networking, (iii) VLSI and Embedded Systems, and (iv) Optimization Techniques. The major focus is on emerging computing technologies and their applications in the domain of communication and networking. The book will prove useful for engineers and researchers working on physical, data link and transport layers of communication protocols. Also, this will be useful for industry professionals interested in manufacturing of communication devices, modems, routers etc. with enhanced computational and data handling capacities.

Proceedings of Fourth International Conference on Soft Computing for Problem Solving - Kedar Nath Das 2014-12-24

The Proceedings of SocProS 2014 serves as an academic bonanza for scientists and researchers working in the field of Soft Computing. This book contains theoretical as well as practical aspects using fuzzy logic, neural networks, evolutionary algorithms, swarm intelligence algorithms, etc., with many applications under the umbrella of 'Soft Computing'. The book is beneficial for young as well as experienced researchers dealing across complex and intricate real world problems for which finding a solution by traditional methods is a difficult task. The different application areas covered in the Proceedings are: Image Processing, Cryptanalysis, Industrial Optimization, Supply Chain Management, Newly Proposed Nature Inspired Algorithms, Signal Processing, Problems related to Medical and Healthcare, Networking Optimization Problems, etc.

Environmental Systems Analysis with MATLAB® - Stefano Marsili-Libelli 2018-09-03

Explore the inner workings of environmental processes using a mathematical approach. Environmental Systems Analysis with MATLAB® combines environmental science concepts and system theory with numerical techniques to provide a better understanding of how our environment works. The book focuses on building mathematical models of environmental systems, and using these models to analyze their behaviors. Designed with the environmental professional in mind, it offers a practical introduction to developing the skills required for managing environmental modeling and data handling. The book follows a logical sequence from the basic steps of model building and data analysis to implementing these concepts into working computer codes, and then on to assessing their results. It describes data processing (rarely considered in environmental analysis); outlines the tools needed to successfully analyze data and develop models, and moves on to real-world problems. The author illustrates in the first four chapters the methodological aspects of environmental systems analysis, and in subsequent chapters applies them to

specific environmental concerns. The accompanying software bundle is freely downloadable from the book web site. It follows the chapters sequence and provides a hands-on experience, allowing the reader to reproduce the figures in the text and experiment by varying the problem setting. A basic MATLAB literacy is required to get the most out of the software. Ideal for coursework and self-study, this offering: Deals with the basic concepts of environmental modeling and identification, both from the mechanistic and the data-driven viewpoint Provides a unifying methodological approach to deal with specific aspects of environmental modeling: population dynamics, flow systems, and environmental microbiology Assesses the similarities and the differences of microbial processes in natural and man-made environments Analyzes several aquatic ecosystems' case studies Presents an application of an extended Streeter & Phelps (S&P) model Describes an ecological method to estimate the bioavailable nutrients in natural waters Considers a lagoon ecosystem from several viewpoints, including modeling and management, and more

Adaptive Signal Processing - Widrow 2016

Engineering Applications of Neural Networks - Chrisina Jayne 2013-04-19

This book constitutes the refereed proceedings of the 13th International Conference on Engineering Applications of Neural Networks, EANN 2012, held in London, UK, in September 2012. The 49 revised full papers presented were carefully reviewed and selected from numerous submissions. The papers describe the applications of neural networks and other computational intelligence approaches to intelligent transport, environmental engineering, computer security, civil engineering, financial forecasting, virtual learning environments, language interpretation, bioinformatics and general engineering.

Aerobic Granular Sludge - S. Bathe 2005-03-31

Aerobic Granular Sludge has recently received growing attention by researchers and technology developers, worldwide. Laboratory studies and preliminary field tests led to the conclusion that granular activated sludge can be readily established and profitably used in activated sludge plants, provided 'correct' process conditions are chosen. But what makes process conditions 'correct'? And what makes granules different from activated sludge flocs? Answers to these question are offered in Aerobic Granular Sludge. Major topics covered in this book include: Reasons and mechanism of aerobic granule formation Structure of the microbial population of aerobic granules Role, composition and physical properties of EPS Diffuse limitation and microbial activity within granules Physio-chemical characteristics Operation and application of granule reactors Scale-up aspects of granular sludge reactors, and case studies Aerobic Granular Sludge provides up-to-date information about a rapidly emerging new technology of biological treatment.

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.

Introduction to Genetic Algorithms - S.N. Sivanandam
2007-10-24

This book offers a basic introduction to genetic algorithms. It provides a detailed explanation of genetic algorithm concepts and examines numerous genetic algorithm optimization problems. In addition, the book presents implementation of optimization problems using C and C++ as well as simulated solutions for genetic algorithm problems using MATLAB 7.0. It also includes application case studies on genetic algorithms in emerging fields.

Traveler Behavior and Values, 2003 - National Research Council (U.S.). Transportation Research Board 2003

Advanced Control Engineering - Roland Burns 2001-11-07

Advanced Control Engineering provides a complete course in control engineering for undergraduates of all technical disciplines. Included are real-life case studies, numerous problems, and accompanying MatLab programs.

Adaptive Fuzzy Systems and Control - Li-Xin Wang 1994

This volume develops a variety of adaptive fuzzy systems and applies them to a variety of engineering problems. It summarizes the state-of-the-art methods for automatic tuning of the parameters and structures of fuzzy logic systems.

Analytical Tools in Research - L N Pattanaik 2017-02-23

Irrespective of the specialization, researchers in universities or elsewhere often come across a situation where judicious selection of an analytical tool is required for problem solving, modelling, optimization, prediction, data analysis and inference, decision making etc. to proceed with the research work. The book 'Analytical Tools in Research' intends to assist in this crucial step by providing key features of about 80 classical and contemporary analytical tools from statistics, operation research, metaheuristics, artificial intelligence and hybridization of these tools. Some of the popular tools included are Regression analysis (ten types), ANOVA, DoE, Taguchi, RSM, Grey analysis, MCDM (AHP, VIKOR, TOPSIS etc.), Fuzzy logic, ANN, Multi-objective GA, ANFIS, fuzzy-ELECTRE, Grey-Taguchi and so on. Illustrative examples with software applications are presented to reduce the gap between theory and application.

Biomimicry for Optimization, Control, and Automation -

Kevin M. Passino 2005-12-06

Biomimicry uses our scientific understanding of biological systems to exploit ideas from nature in order to construct some technology. In this book, we focus on how to use biomimicry of the functional operation of the "hardware and software" of biological systems for the development of optimization algorithms and feedback control systems that extend our capabilities to implement sophisticated levels of automation. The primary focus

is not on the modeling, emulation, or analysis of some biological system. The focus is on using "bio-inspiration" to inject new ideas, techniques, and perspective into the engineering of complex automation systems. There are many biological processes that, at some level of abstraction, can be represented as optimization processes, many of which have as a basic purpose automatic control, decision making, or automation. For instance, at the level of everyday experience, we can view the actions of a human operator of some process (e. g. , the driver of a car) as being a series of the best choices he or she makes in trying to achieve some goal (staying on the road); emulation of this decision-making process amounts to modeling a type of biological optimization and decision-making process, and implementation of the resulting algorithm results in "human mimicry" for automation. There are clearer examples of biological optimization processes that are used for control and automation when you consider nonhuman biological or behavioral processes, or the (internal) biology of the human and not the resulting external behavioral characteristics (like driving a car). For instance, there are homeostasis processes where, for instance, temperature is regulated in the human body.

AI and Learning Systems - Konstantinos Kyprianidis
2021-02-17

Over the last few years, interest in the industrial applications of AI and learning systems has surged. This book covers the recent developments and provides a broad perspective of the key challenges that characterize the field of Industry 4.0 with a focus on applications of AI. The target audience for this book includes engineers involved in automation system design, operational planning, and decision support. Computer science practitioners and industrial automation platform developers will also benefit from the timely and accurate information provided in this work. The book is organized into two main sections comprising 12 chapters overall:

- Digital Platforms and Learning Systems
- Industrial Applications of AI

Computational Intelligence - Nazmul Siddique 2013-05-06

Computational Intelligence: Synergies of Fuzzy Logic, Neural Networks and Evolutionary Computing presents an introduction to some of the cutting edge technological paradigms under the umbrella of computational intelligence. Computational intelligence schemes are investigated with the development of a suitable framework for fuzzy logic, neural networks and evolutionary computing, neuro-fuzzy systems, evolutionary-fuzzy systems and evolutionary neural systems. Applications to linear and non-linear systems are discussed with examples. Key features: Covers all the aspects of fuzzy, neural and evolutionary approaches with worked out examples, MATLAB® exercises and applications in each chapter Presents the synergies of technologies of computational intelligence such as evolutionary fuzzy neural fuzzy and evolutionary neural systems Considers real world problems in the domain of systems modelling, control and optimization Contains a foreword written by Lotfi Zadeh Computational Intelligence: Synergies of Fuzzy Logic, Neural Networks and Evolutionary Computing is an ideal text for final year undergraduate, postgraduate and research students in electrical, control, computer, industrial and manufacturing engineering.

Applications from Engineering with MATLAB Concepts - Jan Valdmán 2016-07-07

The book presents a collection of MATLAB-based chapters of various engineering background. Instead of giving exhausting amount of technical details, authors were rather advised to explain relations of their problems to actual MATLAB concepts. So, whenever possible, download links to functioning MATLAB codes were added and a potential reader can do own testing. Authors are

typically scientists with interests in modeling in MATLAB. Chapters include image and signal processing, mechanics and dynamics, models and data identification in biology, fuzzy logic, discrete event systems and data acquisition systems.

Numerical Computing with MATLAB - Cleve B. Moler
2010-08-12

A revised textbook for introductory courses in numerical methods, MATLAB and technical computing, which emphasises the use of mathematical software.

Handbook of Fuzzy Computation - E Ruspini 2020-03-05

Initially conceived as a methodology for the representation and manipulation of imprecise and vague information, fuzzy computation has found wide use in problems that fall well beyond its originally intended scope of application. Many scientists and engineers now use the paradigms of fuzzy computation to tackle problems that are either intractable

Sensors, Update 8 - Henry Baltés 2001-02-22

Sensors Update ensures that you stay at the cutting edge of the field. Built upon the series Sensors, it presents an overview of highlights in the field. Coverage includes current developments in materials, design, production, and applications of sensors, signal detection and processing, as well as new sensing principles. Each volume is divided into three sections: Sensor Technology reviews highlights in applied and basic research, while Sensor Applications covers new or improved applications of sensors, and Sensor Markets provides a survey of suppliers and market trends for a particular area. With this unique combination of information in each volume, Sensors Update will be invaluable to scientists and engineers in industry and at universities, to sensors developers, distributors, and users.

Formal Methods in Systems Engineering - Peter Ryan
2012-12-06

As computer technology is used to control critical systems to an increasing degree, it is vital that the methods for developing and understanding these systems are substantially improved. The mathematical and scientific foundations currently used are extremely limited which means that their correctness and reliability cannot be ensured to an acceptable level. Systems engineering needs to become a fully fledged scientific discipline and formal methods, which are characterised by their firm mathematical foundations, are playing a vital role in achieving this transition. This volume is based on the proceedings of the Formal Methods Workshop (FM91), held in Drymen, Scotland, 24-27 September 1991. This was the second workshop sponsored by the Canadian and US governments to address the role of formal methods in the development of digital systems. Traditionally, formal methods have evolved in isolation from more conventional approaches, and one of the aims of this workshop was to emphasise the benefits of integrating the two areas. The workshop concentrated on the themes of quality assurance, design methods and mathematical modelling techniques. Particular emphasis was given to safety and security applications. Among the topics covered in this volume are: what is a formal method?; social research on formal methods; current quality assurance methods and formal methods; a pragmatic approach to validation; integrating methods in practice; composition of descriptions; and topics in large program formal development. Formal Methods in Systems Engineering provides an overview of many of the major approaches to formal methods and the benefits which can result from them. It is relevant to academic and industrial researchers, industrial practitioners and government workers with an interest in certification.

Evolving Connectionist Systems - Nikola Kasabov
2013-03-14

Many methods and models have been proposed for solving difficult problems such as prediction, planning and

knowledge discovery in application areas such as bioinformatics, speech and image analysis. Most, however, are designed to deal with static processes which will not change over time. Some processes - such as speech, biological information and brain signals - are not static, however, and in these cases different models need to be used which can trace, and adapt to, the changes in the processes in an incremental, on-line mode, and often in real time. This book presents generic computational models and techniques that can be used for the development of evolving, adaptive modelling systems. The models and techniques used are connectionist-based (as the evolving brain is a highly suitable paradigm) and, where possible, existing connectionist models have been used and extended. The first part of the book covers methods and techniques, and the second focuses on applications in bioinformatics, brain study, speech, image, and multimodal systems. It also includes an extensive bibliography and an extended glossary. Evolving Connectionist Systems is aimed at anyone who is interested in developing adaptive models and systems to solve challenging real world problems in computing science or engineering. It will also be of interest to researchers and students in life sciences who are interested in finding out how information science and intelligent information processing methods can be applied to their domains.

High Performance Control of AC Drives with Matlab / Simulink Models - Haitham Abu-Rub 2012-04-13

A comprehensive guide to understanding AC machines with exhaustive simulation models to practice design and control. Nearly seventy percent of the electricity generated worldwide is used by electrical motors. Worldwide, huge research efforts are being made to develop commercially viable three- and multi-phase motor drive systems that are economically and technically feasible. Focusing on the most popular AC machines used in industry - induction machine and permanent magnet synchronous machine - this book illustrates advanced control techniques and topologies in practice and recently deployed. Examples are drawn from important techniques including Vector Control, Direct Torque Control, Nonlinear Control, Predictive Control, multi-phase drives and multilevel inverters. Key features include: systematic coverage of the advanced concepts of AC motor drives with and without output filter; discussion on the modelling, analysis and control of three- and multi-phase AC machine drives, including the recently developed multi-phase-phase drive system and double fed induction machine; description of model predictive control applied to power converters and AC drives, illustrated together with their simulation models; end-of-chapter questions, with answers and PowerPoint slides available on the companion website www.wiley.com/go/aburub_control. This book integrates a diverse range of topics into one useful volume, including most the latest developments. It provides an effective guideline for students and professionals on many vital electric drives aspects. It is an advanced textbook for final year undergraduate and graduate students, and researchers in power electronics, electric drives and motor control. It is also a handy tool for specialists and practicing engineers wanting to develop and verify their own algorithms and techniques.

Fuzzy Logic Toolbox - 2000

A First Course in Fuzzy and Neural Control - Hung T. Nguyen 2002-11-12

Although the use of fuzzy control methods has grown nearly to the level of classical control, the true understanding of fuzzy control lags seriously behind. Moreover, most engineers are well versed in either traditional control or in fuzzy control - rarely both. Each has applications for which it is better suited, but without a good understanding of both, engineers cannot

make a sound determination of which technique to use for a given situation. A First Course in Fuzzy and Neural Control is designed to build the foundation needed to make those decisions. It begins with an introduction to standard control theory, then makes a smooth transition to complex problems that require innovative fuzzy, neural, and fuzzy-neural techniques. For each method, the authors clearly answer the questions: What is this new control method? Why is it needed? How is it implemented? Real-world examples, exercises, and ideas for student projects reinforce the concepts presented. Developed from lecture notes for a highly successful course titled The Fundamentals of Soft Computing, the text is written in the same reader-friendly style as the authors' popular A First Course in Fuzzy Logic text. A First Course in Fuzzy and Neural Control requires only a basic background in mathematics and engineering and does not overwhelm students with unnecessary material but serves to motivate them toward more advanced studies.

Proceedings of the International Conference of Mechatronics and Cyber-MixMechatronics - 2017 - Gheorghe I. Gheorghe 2017-08-07

This first edition of conference Proceedings reflects the expansion of the field of Mechatronics, which has now taken its place in the world of newer transdisciplinary fields of Adaptronics, Integronics, and Cyber-Mix Mechatronics. It presents state-of-the art advances in Mechatronics, Adaptronics, Integronics and Cyber-Mix-Mechatronics. The 1st International Conference of Mechatronics and Cyber-MixMechatronics/ICOME CYME was organized by the National Institute of R&D in Mechatronics and Measurement Technique in Bucharest (Romania), on September 7th–8th, 2017 and attracted specialists from all over the world—including North America, South America, and Asia. In addition to presenting research results, ICOMECYME also offered a forum for exchange between R&D experts.

Proceedings of the 8th International Conference on Advanced Intelligent Systems and Informatics 2022 - Aboul Ella Hassanien 2022-12-19

This proceedings book constitutes the refereed proceedings of the 8th International Conference on Advanced Intelligent Systems and Informatics (AISI 2021), which took place in Cairo, Egypt, during November 20–22, 2022, and is an international interdisciplinary conference that presents a spectrum of scientific research on all aspects of informatics and intelligent systems, technologies, and applications.

PEM Fuel Cell Modeling and Simulation Using Matlab - Colleen Spiegel 2011-08-29

Although, the basic concept of a fuel cell is quite simple, creating new designs and optimizing their performance takes serious work and a mastery of several technical areas. PEM Fuel Cell Modeling and Simulation Using Matlab, provides design engineers and researchers with a valuable tool for understanding and overcoming barriers to designing and building the next generation of PEM Fuel Cells. With this book, engineers can test components and verify designs in the development phase, saving both time and money. Easy to read and understand, this book provides design and modelling tips for fuel cell components such as: modelling proton exchange structure, catalyst layers, gas diffusion, fuel distribution structures, fuel cell stacks and fuel cell plant. This book includes design advice and MATLAB and FEMLAB codes for Fuel Cell types such as: polymer electrolyte, direct methanol and solid oxide fuel cells. This book also includes types for one, two and three dimensional modeling and two-phase flow phenomena and microfluidics. *Modeling and design validation techniques *Covers most types of Fuel Cell including SOFC *MATLAB and FEMLAB modelling codes *Translates basic phenomena into mathematical equations

Fuzzy Logic for Embedded Systems Applications - Ahmad Ibrahim 2004

Extensive coverage of both the theory and application of fuzzy logic design.

Neuro-fuzzy and Soft Computing - Jyh-Shing Roger Jang 1997

Neuro-Fuzzy and Soft Computing provides the first comprehensive treatment of the constituent methodologies underlying neuro-fuzzy and soft computing, an evolving branch of computational intelligence. The constituent methodologies include fuzzy set theory, neural networks, data clustering techniques, and several stochastic optimization methods that do not require gradient information. In particular, the authors put equal emphasis on theoretical aspects of covered methodologies, as well as empirical observations and verifications of various applications in practice. The book is well suited for use as a text for courses on computational intelligence and as a single reference source for this emerging field. To help readers understand the material the presentation includes more than 50 examples, more than 150 exercises, over 300 illustrations, and more than 150 Matlab scripts. In addition, Matlab is utilized to visualize the processes of fuzzy reasoning, neural-network learning, neuro-fuzzy integration and training, and gradient-free optimization (such as genetic algorithms, simulated annealing, random search, and downhill Simplex method). The presentation also makes use of SIMULINK for neuro-fuzzy control system simulations. All Matlab scripts used in the book are available on the free companion software disk that may be ordered by using the enclosed reply card. The book also contains an "Internet Resource Page" to point the reader to on-line neuro-fuzzy and soft computing home pages, publications, public-domain software, research institutes, news groups, etc. All the HTTP and FTP addresses are available as a bookmark file on the companion software disk.

Artificial Intelligence with Python - Prateek Joshi 2017-01-27

Build real-world Artificial Intelligence applications with Python to intelligently interact with the world around you About This Book Step into the amazing world of intelligent apps using this comprehensive guide Enter the world of Artificial Intelligence, explore it, and create your own applications Work through simple yet insightful examples that will get you up and running with Artificial Intelligence in no time Who This Book Is For This book is for Python developers who want to build real-world Artificial Intelligence applications. This book is friendly to Python beginners, but being familiar with Python would be useful to play around with the code. It will also be useful for experienced Python programmers who are looking to use Artificial Intelligence techniques in their existing technology stacks. What You Will Learn Realize different classification and regression techniques Understand the concept of clustering and how to use it to automatically segment data See how to build an intelligent recommender system Understand logic programming and how to use it Build automatic speech recognition systems Understand the basics of heuristic search and genetic programming Develop games using Artificial Intelligence Learn how reinforcement learning works Discover how to build intelligent applications centered on images, text, and time series data See how to use deep learning algorithms and build applications based on it In Detail Artificial Intelligence is becoming increasingly relevant in the modern world where everything is driven by technology and data. It is used extensively across many fields such as search engines, image recognition, robotics, finance, and so on. We will explore various real-world scenarios in this book and you'll learn about various algorithms that can be used to build Artificial Intelligence applications. During the course of this book, you will find out how to make informed decisions about what algorithms to use in a given context. Starting from the

basics of Artificial Intelligence, you will learn how to develop various building blocks using different data mining techniques. You will see how to implement different algorithms to get the best possible results, and will understand how to apply them to real-world scenarios. If you want to add an intelligence layer to any application that's based on images, text, stock market, or some other form of data, this exciting book on Artificial Intelligence will definitely be your guide! Style and approach This highly practical book will show you how to implement Artificial Intelligence. The book provides multiple examples enabling you to create smart applications to meet the needs of your organization. In every chapter, we explain an algorithm, implement it, and then build a smart application.
MATLAB Neural Network Toolbox: User's Guide - Howard B. Demuth 1992

SISTEM FUZZY - Galang Persada Nurani Hakim, S.T., M.T., 2021-07-16

Modeling of Tropospheric Delays Using ANFIS - Wayan Suparta 2015-12-22

This book investigates tropospheric delays, one of the main error sources in Global Navigation Satellite Systems (GNSS), and its impact plays a crucial role in near real-time weather forecasting. Accessibility and accurate estimation of this parameter are essential for weather and climate research. Advances in GNSS application has allowed the measurements of Zenith Tropospheric Delay (ZTD) in all weather conditions and on a global scale with fine temporal and spatial resolution. However, GPS data are not always available for a full 24-hour period. Using a soft computing technique such as Adaptive Neuro-Fuzzy Inference System (ANFIS) as a new alternative, the ZTD can be determined by using the surface meteorological data as inputs. The estimation and prediction of ZTD value are presented in this book.

Solving Optimization Problems with MATLAB® - Dingyü Xue 2020-04-06

This book focuses on solving optimization problems with MATLAB. Descriptions and solutions of nonlinear equations of any form are studied first. Focuses are made on the solutions of various types of optimization problems, including unconstrained and constrained optimizations, mixed integer, multiobjective and dynamic programming problems. Comparative studies and conclusions on intelligent global solvers are also provided.

Introduction to Fuzzy Logic using MATLAB - S.N. Sivanandam 2006-10-28

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.

Tutorial CEPAT & MUDAH FUZZY LOGIC dengan MATLAB - DR. Eng. Agus Naba 2009-11-01

Dengan fuzzy logic, transfer kecerdasan yang dimiliki manusia ke dalam robot, komputer, dan bahkan alat-alat elektronik sehari-hari, telah menjadi mudah, seperti mesin cuci, kamera, microwave, dan lain-lain telah mampu berpikir seperti manusia berkat penerapan fuzzy logic. MATLAB telah menyediakan Fuzzy Logic Toolbox yang berisi kumpulan fungsi-fungsi siap pakai untuk rancang-bangun sistem fuzzy. Bagi mereka yang berlatar-belakang non-komputer, MATLAB menyediakan Graphical User Interface (GUI), suatu alat bantu interaktif yang didesain khusus untuk perancangan sistem fuzzy logic dengan mudah, bahkan untuk seorang pemula. Buku ini akan memandu Anda step-by-step dengan cepat dan mudah dalam memahami konsep fuzzy logic. Pada saat yang sama Anda bisa menguasai MATLAB, terutama Fuzzy Logic Toolbox-nya, karena panduan-panduan yang diberikan dalam buku ini dilakukan dengan langsung berinteraksi dengan MATLAB. Dan melalui buku ini pula, Anda akan mampu dan siap merancang sendiri sistem fuzzy logic untuk aplikasi di bidang Anda.

Evolving Connectionist Systems - Nikola K. Kasabov 2007-08-23

This second edition of the must-read work in the field presents generic computational models and techniques that can be used for the development of evolving, adaptive modeling systems, as well as new trends including computational neuro-genetic modeling and quantum information processing related to evolving systems. New applications, such as autonomous robots, adaptive artificial life systems and adaptive decision support systems are also covered.

Application of Soft Computing and Intelligent Methods in Geophysics - Alireza Hajian 2018-06-21

This book provides a practical guide to applying soft-computing methods to interpret geophysical data. It discusses the design of neural networks with Matlab for geophysical data, as well as fuzzy logic and neuro-fuzzy concepts and their applications. In addition, it describes genetic algorithms for the automatic and/or intelligent processing and interpretation of geophysical data.

Developments in Renewable Energies Offshore - Guedes Soares Carlos 2020-10-13

Developments in Renewable Energies Offshore contains the papers presented at the 4th International Conference on Renewable Energies Offshore (RENEW 2020, Lisbon, Portugal, 12 - 15 October 2020). The book covers a wide range of topics, including: resource assessment; wind energy; wave energy; tidal energy; ocean energy devices; multiuse platforms; PTO design; grid connection; economic assessment; materials and structural design; installation planning and maintenance planning. The book will be invaluable to professionals and academics involved or interested in Offshore Engineering, and Renewable and Wind Energy.

Transportation Research Record - 1974