

Akira Hirose Introduction To Wave Phenomena

In this book " Radar Technology ", the chapters are divided into four main topic areas: Topic area 1: " Radar Systems " consists of chapters which treat whole radar systems, environment and target functional chain. Topic area 2: " Radar Applications " shows various applications of radar systems, including meteorological radars, ground penetrating radars and glaciology. Topic area 3: " Radar Functional Chain and Signal Processing " describes several aspects of the radar signal processing. From parameter extraction, target detection over tracking and classification technologies. Topic area 4: " Radar Subsystems and Components " consists of design technology of radar subsystem components like antenna design or waveform design.

Introduction to Wave PhenomenaWiley-Interscience

"Now in its ninety-eighth year of publication, this standard Canadian reference source contains the most comprehensive and authoritative biographical information on notable living Canadians. Those listed are carefully selected because of the positions they hold in Canadian society, or because of the contribution they have made to life in Canada. The volume is updated annually to ensure accuracy, and 600 new entries are added each year to keep current with developing trends and issues in Canadian society. Included are outstanding Canadians from all walks of life: politics, media, academia, business, sports and the arts, from every area of human activity. Each entry details birth date and place, education, family, career history, memberships, creative works, honours and awards, and full addresses. Indispensable to researchers, students, media, business, government and schools, Canadian Who's Who is an invaluable source of general knowledge. The complete text of Canadian Who's Who is also available on CD-ROM, in a comprehensively indexed and fully searchable format. Search 'astronaut' or 'entrepreneur of the year,' 'aboriginal achievement award' and 'Order of Canada' and discover a wealth of information. Fast, easy and more accessible than ever, the Canadian Who's Who on CD-ROM is an essential addition to your electronic library. Network Licensing available. ISBN 978-0-8020-4064-0 For pricing information, please contact CEDROM-Sni 1-888-544-0339 ext. 3 info.canada@cedrom-sni.comPST 8% applicable to Ontario residents on all of the aboveCD-ROM requirements: WINDOWS: 95/98/2000/NT/XP - 386/25Mhz - 4mb RAM (8mb recommended) MAC: OS 7, 8, and 9 - 4mb RAM (8mb recommended)"

Author, title

Linking Undergraduate Disciplines

Knowledge-based Intelligent Information Engineering Systems & Allied Technologies

Systems and Human Science, for Safety, Security, and Dependability

Selected Papers of the 1st International Symposium SSR2003, Osaka, Japan, November 2003

Proceedings of the 8th International Conference on Artificial Neural Networks, Skövde, Sweden, 2–4 September 1998

Our society keeps growing with a large number of complicated machines and systems, while we are spending our diverse lives. The number of aged people has been increasing in the society. It is more likely than ever that we are involved in dangers, accidents, crimes, and disasters. Securing and supporting our daily life, building reliable infrastructures against large scale disasters, and preventing unexpected human errors are crucial issues in our highly developed complex society. The systems theory can provide "modelling, decision analysis and management for safety and security" as well as "fault detection and reliable control for the design of fail-safe, fool-proof machines and systems". If the human nature is analyzed and treated properly in the process of designing machines and systems, we could create safer, more reliable, and more intelligent machines and systems that can support our society and give us no anxiety and no uneasiness. "Hybrid systems modelling human behaviours" and "services for human" could give proper examples in this respect. "Robotics for safety and security", "safety recovery systems", "visual surveillance and monitoring", and "transportation systems for safety and security", those will provide powerful tools for safe, secure, and reliable systems to achieve peaceful society. Key features: - Towards a new science and its practical applications - Analysis of humans contributing to system designs - Evaluations of systems in the aspects of sense of security and feeling of easiness

The three volume set LNCS 8226, LNCS 8227, and LNCS 8228 constitutes the proceedings of the 20th International Conference on Neural Information Processing, ICONIP 2013, held in Daegu, Korea, in November 2013. The 180 full and 75 poster papers presented together with 4 extended abstracts were carefully reviewed and selected from numerous submissions. These papers cover all major topics of theoretical research, empirical study and applications of neural information processing research. The specific topics covered are as follows: cognitive science and artificial intelligence; learning theory, algorithms and architectures; computational neuroscience and brain imaging; vision, speech and signal processing; control, robotics and hardware technologies and novel approaches and applications.

Includes a directory of members in one issue each year.

Books in Print

Math and Bio 2010

Artificial Neural Networks and Neural Information Processing - Icnann/Iconip 2003

23rd International Conference, ICONIP 2016, Kyoto, Japan, October 16–21, 2016, Proceedings, Part I

Applications and Novel Algorithm Design

This textbook provides a unified treatment of waves that either occur naturally or can be excited and propagated in various media. This includes both longitudinal and transverse waves. The book covers both mechanical and electrical waves, which are normally covered separately due to their differences in physical phenomena.

In recent years, complex-valued neural networks have widened the scope of application in optoelectronics, imaging, remote sensing, quantum neural devices and systems, spatiotemporal analysis of physiological neural systems, and artificial neural information processing. In this first-ever book on complex-valued neural networks, the most active scientists at the forefront of the field describe theories and applications from various points of view to provide academic and industrial researchers with a comprehensive understanding of the fundamentals, features and prospects of the powerful complex-valued networks. Contents:Complex-Valued Neural Networks: An Introduction (A Hirose)Orthogonal Decision Boundaries and Generalization of Complex-Valued Neural Networks (T Nitta)Clifford Networks (J Pearson)Applications of Complex-Valued Neural Networks for Image Processing (H Aoki)Phasor Model with Application to Multiuser Communication (T Miyajima & K Yamanaka)Adaptive Interferometric Radar Image Processing by Using Complex-Valued Neural Network (A B Suksmo & A Hirose)Coherent Lightwave Neural Network Systems: Use of Frequency Domain (S Kawata & A Hirose)and other articles Readership: Graduate students, academics, researchers, and industrialists in neural networks. Keywords:Neural Networks;Associative Memories;Image Processing;Signal Processing

New York : Wiley, c1985.

Self Organizing Maps

Proceedings of the ... International Conference on Artificial Neural Networks (ICANN-...).

Joint International Conference Icnann/Iconip 2003, Istanbul, Turkey, June 26-29, 2003, Proceedings

Canadian Who's Who 2008

Introduction to Wave Phenomena

Scientific and Technical Books and Serials in Print

Soft computing is a branch of computing which, unlike hard computing, can deal with uncertain, imprecise and inexact data. The three constituents of soft computing are fuzzy-logic-based computing, neurocomputing, and genetic algorithms. Fuzzy logic contributes the capability of approximate reasoning, neurocomputing offers function approximation and learning capabilities, and genetic algorithms provide a methodology for systematic random search and optimization. These three capabilities are combined in a complementary and synergetic fashion. This book presents a cohesive set of contributions dealing with important issues and applications of soft computing in systems and control technology. The contributions include state-of-the-art material, mathematical developments, fresh results, and how-to-do issues. Among the problems studied via neural, fuzzy, neurofuzzy and genetic methodologies are: data fusion, reinforcement learning, approximation properties, multichannel imaging, signal processing, system optimization, gaming, and several forms of control. The book can serve as a reference for researchers and practitioners in the field. Readers can find in it a large amount of useful and timely information, and thus save considerable effort in searching for other scattered literature. Contents:Neural Networks in System Identification and Control:Supervised Learning in Multilayer Perceptrons: The Back-Propagation Algorithm (S G Tzafestas & Y Anthopoulos)Identification of Two-Dimensional State Space Discrete Systems Using Neural Networks (D Wang & A Zilouchian)Neural Networks for Control (R J Mitchell)Neuro-Based Adaptive Regulator (T Tsuji et al.)Local Model Networks and Self-Tuning Predictive Control (P J Gawthrop & E Ronco)Fuzzy and Neuro-Fuzzy Systems in Modeling, Control and Robot Path Planning:An On-Line Self Constructing Fuzzy Modeling Architecture Based on Neural and Fuzzy Concepts and Techniques (S G Tzafestas & K C Zikidis)Neuro-Fuzzy Model Based Control (D Matko et al.)Fuzzy and Neurofuzzy Approaches to Mobile Robot Path and Motion Planning Under Uncertainty (C S Tzafestas & S G Tzafestas)Genetic-Evolutionary Algorithms:A Tutorial Overview of Genetic Algorithms and Their Applications (S G Tzafestas et al.)Results from a Variety of Genetic Algorithm Applications Showing the Robustness of the Approach (W D Potter et al.)Evolutionary Algorithms in Computer-Aided Design of Integrated Circuits (R Drechsler et al.)Soft Computing Applications:Soft Data Fusion (C G Looney & Y Varol)Application of Neural Networks to Computer Gaming (N Baba)Coherent Neural Networks and Their Applications to Control and Signal Processing (A Hirose)Neural, Fuzzy and Evolutionary Reinforcement Learning Systems: An Application Case Study (D A Linkens & H O Nyongesa)Neural Networks in Industrial and Environmental Applications (G C Smith & C L Wrobel) Readership: Researchers and practitioners in systems and control engineering. Keywords:

The three volume set LNCS 7062, LNCS 7063, and LNCS 7064 constitutes the proceedings of the 18th International Conference on Neural Information Processing, ICONIP 2011, held in Shanghai, China, in November 2011.

The 262 regular session papers presented were carefully reviewed and selected from numerous submissions. The papers of part I are organized in topical sections on perception, emotion and development, bioinformatics, biologically inspired vision and recognition, bio-medical data analysis, brain signal processing, brain-computer interfaces, brain-like systems, brain-realistic models for learning, memory and embodied cognition, Clifford algebraic neural networks, combining multiple learners, computational advances in bioinformatics, and computational-intelligent human computer interaction. The second volume is structured in topical sections on cybersecurity and data mining workshop, data mining and knowledge discovery, evolutionary design and optimisation, graphical models, human-originated data analysis and implementation, information retrieval, integrating multiple nature-inspired approaches, kernel methods and support vector machines, and learning and memory. The third volume contains all the contributions connected with multi-agent systems, natural language processing and intelligent Web information processing, neural encoding and decoding, neural network models, neuromorphic hardware and implementations, object recognition, visual perception modelling, and advances in computational intelligence methods based pattern recognition.

Kohonen Self Organizing Maps (SOM) has found application in practical all fields, especially those which tend to handle high dimensional data. SOM can be used for the clustering of genes in the medical field, the study of multi-media and web based contents and in the transportation industry, just to name a few. Apart from the aforementioned areas this book also covers the study of complex data found in meteorological and remotely sensed images acquired using satellite sensing. Data management and employment analysis has also been covered. The application of SOM in mechanical and manufacturing engineering forms another important area of this book. The final section of this book, addresses the design and application of novel variants of SOM algorithms.

Books in Print Supplement

Knowledge-Based Intelligent Information and Engineering Systems

American Journal of Physics

Physics Briefs

American Book Publishing Record

Complex-valued Neural Networks

"Math and bio 2010 grew out of 'Meeting the Challenges: Education across the Biological, Mathematical and Computer Sciences,' a joint project of the Mathematical Association of America (MAA), the National Science Foundation Division of Undergraduate Education (NSF DUE), the National Institute of General Medical Sciences (NIGMS), the American Association for the Advancement of Science (AAAS), and the American Society for Microbiology (ASM)."--Foreword, p. vi

ICANN, the International Conference on Artificial Neural Networks, is the official conference series of the European Neural Network Society which started in Helsinki in 1991. Since then ICANN has taken place in Brighton, Amsterdam, Sorrento, Paris, Bochum and Lausanne, and has become Europe's major meeting in the field of neural networks. This book contains the proceedings of ICANN 98, held 2-4 September 1998 in Skovde, Sweden. Of 340 submissions to ICANN 98, 180 were accepted for publication and presentation at the conference. In addition, this book contains seven invited papers presented at the conference. A conference of this size is obviously not organized by three individuals alone. We therefore would like to thank the following people and organizations for supporting ICANN 98 in one way or another: • the European Neural Network Society and the Swedish Neural Network Society for their active support in the organization of this conference, • the Programme Committee and all reviewers for the hard and timely work that was required to produce more than 900 reviews during April 1998, • the Steering Committee which met in Skovde in May 1998 for the final selection of papers and the preparation of the conference program, • the other Module Chairs: Bengt Asker (Industry and Research), Harald Brandt (Applications), Anders Lansner (Computational Neuroscience and Brain Theory), Thorsteinn Rognvaldsson (Theory), Noel Sharkey (co chair Autonomous Robotics and Adaptive Behavior), Bertil Svensson (Hardware and Implementations), • the conference secretary, Leila Khammari, and the rest of the

The annual Kes International Conference in Knowledge-based Intelligent Information Engineering Systems and Allied Technologies has become an event that is held in high regard by the intelligent systems community. The proceedings of the fifth conference represents a comprehensive survey of research on the theory and application of knowledge-based intelligent systems including topics such as: generic intelligent techniques - artificial neural networks, machine learning fuzzy and neuro-fuzzy techniques, and artificial life; applications of intelligent systems - condition monitoring, fault diagnosis, image processing, and high voltage systems; and allied technologies - communications, the Internet and web-based technologies, e-commerce, and computer pets. The proceedings should be of interest to those in the intelligent systems field, such as engineers, researchers and students.

Theories and Applications

Complex-Valued Neural Networks

Neural Information Processing

Bulletin

18th International Conference, ICONIP 2011, Shanghai, China, November 13-17, 2011, Proceedings, Part I

Applied Mechanics Reviews

The four-volume proceedings LNCS 13108, 13109, 13110, and 13111 constitutes the proceedings of the 28th International Conference on Neural Information Processing, ICONIP 2021, which was held during December 8-12, 2021. The conference was held in Bali, Indonesia but changed to an online format due to the COVID-19 pandemic. The total of 226 full papers presented in these proceedings was carefully reviewed and selected from 1093 submissions. The papers were organized in topical sections and algorithms: Part II: Theory and algorithms: human centred computing; AI and cybersecurity; Part III: Cognitive neurosciences: reliable, robust, and secure machine learning algorithms: theory and applications of natural computing paradigm; Part IV: shallow machine learning algorithms for biomedical data and imaging; applications: Part IV: Applications.

The five volume set LNCS 7663, LNCS 7664, LNCS 7665, LNCS 7666 and LNCS 7667 constitutes the proceedings of the 19th International Conference on Neural Information Processing, ICONIP 2012, held in Doha, Qatar, in November 2012. The 262 regular session papers presented were carefully reviewed and selected from numerous submissions. These papers cover all major topics of theoretical research, empirical study and applications of neural information processing research. The 5 volumes represent the proceedings on theoretical analysis, neural modeling, algorithms, applications, as well as simulation and synthesis.

During recent decades we have witnessed not only the introduction of automation into the work environment but we have also seen a dramatic change in how automation has influenced the conditions of work. While some 30 years ago technology was considered only for routine and boring tasks in support of humans, the balance has dramatically shifted to the computer being able to perform almost any task the human is willing to delegate. The very fast pace of change in processor and software technology has become a main driving force behind this development. Advances in automation and especially Artificial Intelligence (AI) have enabled the formation of a rather unique team with human and electronic members. The team is still supervised by the human and subordinate associate or assistant, sharing responsibility, authority and autonomy over many tasks. The requirement for teaming human and machine in a highly dynamic and unpredictable task environment has led to impressive achievements in many technologies. These include methods for system analysis, design and engineering and in particular for information processing, for cognitive and complex knowledge [1] engineering.

22nd International Conference, ICONIP 2015, Istanbul, Turkey, November 9-12, 2015, Proceedings Part III

Guide to Reprints

7th International Conference, KES 2003 Oxford, UK, September 3-5, 2003 Proceedings, Part II

21st International Conference, ICONIP 2014, Kuching, Malaysia, November 3-6, 2014. Proceedings, Part I

Second Sino-foreign-interchange Workshop, IScIDE 2011, Xi'an, China, October 23-25, 2011, Revised Selected Papers

The New Encyclopædia Britannica: Macropædia

The four volume set LNCS 9489, LNCS 9490, LNCS 9491, and LNCS 9492 constitutes the proceedings of the 22nd International Conference on Neural Information Processing, ICONIP 2015, held in Istanbul, Turkey, in November 2015. The 231 full papers presented were carefully reviewed and selected from 375 submissions. The 4 volumes represent topical sections containing articles on Learning Algorithms and Classification Systems; Artificial Intelligence and Neural Networks: Theory, Design, and Applications; Image and Signal Processing; and Intelligent Social Networks.

In recent years, complex-valued neural networks have widened the scope of application in optoelectronics, imaging, remote sensing, quantum neural devices and systems, spatiotemporal analysis of physiological neural systems, and artificial neural information processing. In this first-ever book on complex-valued neural networks, the most active scientists at the forefront of the field describe theories and applications from various points of view to provide academic and industrial researchers with a comprehensive understanding of the fundamentals, features and prospects of the powerful complex-valued networks.

The four volume set LNCS 9947, LNCS 9948, LNCS 9949, and LNCS 9950 constitutes the proceedings of the 23rd International Conference on Neural Information Processing, ICONIP 2016, held in Kyoto, Japan, in

October 2016. The 296 full papers presented were carefully reviewed and selected from 431 submissions. The 4 volumes are organized in topical sections on deep and reinforcement learning; big data analysis; neural data analysis; robotics and control; bio-inspired/energy efficient information processing; whole brain architecture; neurodynamics; bioinformatics; biomedical engineering; data mining and cybersecurity workshop; machine learning; neuromorphic hardware; sensory perception; pattern recognition; social networks; brain-machine interface; computer vision; time series analysis; data-driven approach for extracting latent features; topological and graph based clustering methods; computational intelligence; data mining; deep neural networks; computational and cognitive neurosciences; theory and algorithms.

19th International Conference, ICONIP 2012, Doha, Qatar, November 12-15, 2012, Proceedings, Part V

Optics News

ICANN 98

Nonlinear Waves in Random Media

28th International Conference, ICONIP 2021, Sanur, Bali, Indonesia, December 8-12, 2021, Proceedings, Part III

Artificial Neural Networks

This book constitutes the refereed proceedings of the joint International Conference on Artificial Neural Networks and International Conference on Neural Information Processing, ICANN/ICONIP 2003, held in Istanbul, Turkey, in June 2003. The 138 revised full papers were carefully reviewed and selected from 346 submissions. The papers are organized in topical sections on learning algorithms, support vector machine and kernel methods, statistical data analysis, pattern recognition, vision, speech recognition, robotics and control, signal processing, time-series prediction, intelligent systems, neural network hardware, cognitive science, computational neuroscience, context aware systems, complex-valued neural networks, emotion recognition, and applications in bioinformatics.

This book constitutes the proceedings of the Sino-foreign-interchange Workshop on Intelligence Science and Intelligent Data Engineering, IScIDE 2011, held in Xi'an, China, in October 2011. The 97 papers presented were carefully peer-reviewed and selected from 389 submissions. The IScIDE papers in this volume are organized in topical sections on machine learning and computational intelligence; pattern recognition; computer vision and image processing; graphics and computer visualization; knowledge discovering, data mining, web mining; multimedia processing and application.

The three volume set LNCS 8834, LNCS 8835, and LNCS 8836 constitutes the proceedings of the 21st International Conference on Neural Information Processing, ICONIP 2014, held in Kuching, Malaysia, in November 2014. The 231 full papers presented were carefully reviewed and selected from 375 submissions. The selected papers cover major topics of theoretical research, empirical study, and applications of neural information processing research. The 3 volumes represent topical sections containing articles on cognitive science, neural networks and learning systems, theory and design, applications, kernel and statistical methods, evolutionary computation and hybrid intelligent systems, signal and image processing, and special sessions intelligent systems for supporting decision, making processes, theories and applications, cognitive robotics, and learning systems for social network and web mining.

Physikalische Berichte

Intelligent Science and Intelligent Data Engineering

20th International Conference, ICONIP 2013, Daegu, Korea, November 3-7, 2013. Proceedings, Part III

INTRODUCTION TO WAVE PHENOMENA

Soft Computing in Systems and Control Technology

Choice