



Route to:

IEEE Analyzes Results from Library Survey

In the April 1992 issue of this publication, we conducted a survey entitled: "How will your library acquire computing and electronics information?". Our intent was to find out how librarians will acquire information in the years ahead, so that we may plan our customer service and product development operations accordingly. Overall, results were *not* surprising. Two general observations are:

- Most IEEE library customers spend the biggest share of their budget on subscriptions; and
- Library budgets in electronics and computing are either increasing by a small amount or actually decreasing.

Below are the questions that we included in the survey:

1. What type of a library or information center do you manage?

College/University	43%
Corporate	39.5%
Government	9%
Other	8.5%
2. Are you located in:

USA	76%
Outside USA	24%
3. Has your library budget for materials in computing and electronics increased or decreased from 1991 to 1992?

Increased	46.5%
Decreased	38.5%
Same	15%

continued on next page



IEEE General Manager, John Powers, with Phyllis Hall, Staff Director responsible for Ask*IEEE, the first such venture by a primary publisher into document delivery

IEEE Announces Ask*IEEE – A Comprehensive New Document Delivery Service

The IEEE has announced their entry into the document delivery business with a new service available January 1, 1993 that will enable researchers from around the world to obtain virtually any document in the public domain rapidly via phone, fax, e-mail and online requests.

Specializing in engineering and computer science information, but offering ready access to information of any kind, the new service, known as Ask*IEEE, is the *first* such venture by a leading primary publisher into document delivery. Ask*IEEE will provide journals, magazines and conference proceedings from *all* publishers on an article-by-article basis.

To assure the fastest and most efficient service, the IEEE has joined forces with Dynamic Information Corp. of Burlingame, CA, a pioneer in the document delivery business. The IEEE has established a toll-free telephone number, 1-800-949-IEEE

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Ask*IEEE
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(or 415-259-5040 outside of the USA) which links customers directly with Ask*IEEE.

As the world's largest technical society and leading publisher in computing, electronics and electrical engineering worldwide, the IEEE offers several key benefits to the document delivery service:

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Ask*IEEE offers different payment options for your convenience: semimonthly invoic-

ing, credit cards (Visa, MasterCard, American Express, Diners Club) and deposit accounts.

As a primary publisher in the field, the IEEE "will have an important impact on how scientific and technical information is delivered in the future," said Hall. And, as document delivery continues to be one of the hottest topics in the industry, the decision for the IEEE to look to alternate forms of delivery is only a prelude for better things to come.

For more information, contact:

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Internet:askieee@ieee.org ♦

Library Survey Results
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Do you expect it to increase or decrease from 1992 to 1993?

Increase	49%
Decrease	35%
Same	16%

Further, did your acquisitions from the IEEE increase, decrease, or remain the same from 1991 to 1992?

Increase	20%
Decrease	18%
Remain the same	62%

Do you anticipate your acquisitions from the IEEE to increase, decrease, or remain the same from 1992 to 1993?

Increase	17%
Decrease	10%
Remain the same	73%

4. Who makes the *initial requests* for new publications or information services in computing or electronics in your library? (Note: Total exceeds 100% because of multiple responses)

Library staff	72%
Faculty	40%
R&D Staff	39%
Department Heads	26%
Staff of Operating Divisions	25%
Other	11.5%

5. Who makes the *acquisitions decisions* for new publications or information services in computing or electronics in your library? (Note: Total exceeds 100% because of multiple responses)

Library Staff	80%
Department Heads	20%
Faculty	14.5%
R&D Staff	13.5%
Staff of Operating Divisions	10%
Other	9.5%

6. What is the limit of your signing authority for publications or information in computing and electronics?

\$0	19%
\$1-\$100	7%
\$101-\$200	5%
\$201-\$300	4%
\$301-\$400	1%
\$401-\$500	14%
\$501-\$1,000	8%
over \$1,000	29%
open	12%
varies	1%

7. How much of your budget is allocated to: (by total response)

	% of budget	# of responses
periodicals	1-20% 21-40% 41-60%	87 164 149
books	1-20% 21-40% 41-60%	288 160 37
conference proceedings	1-20% 21-40% over 40%	300 15 1
standards	1-20% 21-40% over 40%	235 17 5
videos	1-20% 21-40% over 40%	149 1 0
on-line databases	1-20% 21-40% over 40%	238 36 8
microforms	1-20% 21-40% over 40%	180 3 0

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IEEE

PRESS

& Other Books

The Guide to the EMC Directive 89/336/EEC
by Chris Marshman, United Kingdom.
November 1992.

This book will be published by E.P.A. Press, UK. Exclusive North American distribution rights assigned to IEEE Press. *Only available for purchase in the US, Canada and Mexico.*

This vital source provides manufacturers with the critical details they need to develop and test products that comply with The Electromagnetic Compatibility Directive. It answers frequently asked questions concerning the Directive, explains essential product certification and marking requirements, compares existing regulations in the U.S., Germany and the UK with those now required by the EC, and offers positive suggestions for future developments.

PARTIAL CONTENTS: The European Community; Directive on EMC — An Introduction; The EC Directive on EMC; The Explanatory Document Explained; Legislation; A Guide to Relevant Standards; Emission Standards; Immunity Standards; Test Facilities; Implications of Directive 89/336/EEC; Achieving Compliance with the EMC Directive; Existing Regulations Summarized; Future Prospects

384pp. (est.), \$49.95
ISBN 0-7803-0445-4
PC0342-6

Integrated Continuous-Time Filters Principles, Design, and Applications

edited by Yannis P. Tsividis, National Technical University of Athens, Greece, and J.O. Voorman, Philips Research Laboratories, The Netherlands.
December 1992.

This practical guide offers an up-to-the-minute look at new techniques used to incorporate filters on a chip — critically affecting the improvement of recent products such as computer communication transceivers, disk drives and VCRs. It covers on-chip automatic tuning (the key to success of integrated time filters) while providing a handy guide to several techniques that have been proposed for continuous-time filter integra-

tion including transconductance-capacitance filters and MOSFET-C filters.

PARTIAL CONTENTS: Overview; MOSFET-C Filters Using Operational Amplifiers; Filters Using Capacitors and Transducers; Filters Using Capacitors, Transconductors and Operational Amplifiers; Other Approaches

512pp. (est.), LC92-53216, \$79.95
ISBN 0-7803-0425-X
PC0321-0

Lucky Strikes . . . Again

by Robert W. Lucky, Bellcore.
January 1993.

Bob Lucky, author of the widely acclaimed "Reflections" column in *SPECTRUM* magazine, provides a humorous, nostalgic collection of ten years worth of his own reflections on typical situations engineers encounter during their careers. Spiced with 20% *new* anecdotes and personal experiences, LUCKY STRIKES . . . AGAIN takes good-natured gibes at corporate bureaucrats while offering some not-so-subtle advice on ways to circumvent the bureaucracy and giving bureaucrats some hints on when to look the other way.

PARTIAL CONTENTS: About Engineers; So What if Engineers Can't Talk or Write?; The Fickleness of Technology; Playing the Corporate Game; Looking at Life; Fantasies of the Future

304pp. (est.), LC92-30769, \$32.95
ISBN 0-7803-0433-0
PC0330-1

Implementing Configuration Management Hardware, Software, and Firmware

by Fletcher J. Buckley, General Electric, Moorestown, N.J.
January 1993.

The first book to cover hardware, software, and firmware all in one volume, this handy reference provides both an overview of configuration management and specific guidance on implementations that can be tailored to meet both commercial and government organizational needs. It offers practical, cost-effective implementations that can be used to maintain the integrity of hardware, software, and firmware products, as well as: how to identify products being developed, how to control changes to these items, and how to audit the effective implementation of these controls to maintain an accurate status report.

PARTIAL CONTENTS: Introduction; Configuration Identification; Configuration Identification Topics; Configuration Control;

Configuration Control Topics; Configuration Status Accounting; Configuration Audits; Additional Implementation Topics; List of Figures; List of Tables

256pp. (est.), LC92-26277, \$49.95
ISBN 0-7803-0435-7
PC0332-7

Understanding the Nervous System An Engineering Perspective

by Sid Deutsch, University of South Florida, Tampa and Alice Deutsch, Bioscreen, Inc., New York.
January 1993.

Providing a fascinating alternative to the unwieldy life science sources, this book describes how the nervous system (including the brain) communicates with, sends signals to, and receives input from the sensory organs. Starting with the basic principles, the authors unfold the mystery of this communication with simple, elegant mathematical formulas to enhance your understanding of how the nervous system functions. UNDERSTANDING THE NERVOUS SYSTEM provides engineers with simplified models of the auditory system, the visual system, and, to the extent that it is known, how the brain functions.

PARTIAL CONTENTS: Excitable Tissue; Sensory Receptors; Dendritic Summation; Skeletal Muscle Circuits; Auditory System; The Eye as a Transducer; Visual Pattern Recognition and "Household Chores"; Three-Neuron Interactions

416pp. (est.), LC92-49854, \$34.95
ISBN 0-87942-296-3
PP0291-5

Visual Cues

Practical Data Visualization

by Peter Keller, Lawrence Livermore National Laboratory, and Mary Keller.
January 1993.

VISUAL CUES is a non-intimidating reference manual, tutorial, and practical guide to scientific visualizations for scientists, engineers, and other researchers. It presents actual examples of visualization techniques (that are easy to understand and apply) and reviews the elements of good visual representation of data. By describing these examples, the authors show scientists and researchers that the technique is applicable across disciplines and that the knowledge of additional techniques for analyzing and communicating data may result in advances in any given field of study.

PARTIAL CONTENTS: How to Use This Book; Introduction; Principles of Technical Graphics: Graphical Formats; Output Media; Design and Layout of Computer Pic-

IEEE

PRESS
& Other Books

continued

tures; Utilizing Color; Basic Programming Techniques; Pictures and Descriptions: Picture Examples; Detailed Descriptions of Pictures; Indexes; Glossary of Terms; General Comprehensive Index

352pp. (est.), LC92-23865, \$79.95
PC0286-5

How to Create and Present Successful Government Proposals

Techniques for Today's Tough Economy edited by James Hill, HRB Systems Inc., State College, PA, and Timothy Whelan, Frank E. Basil Inc., Washington, D.C. January 1993.

No proposal writer should be without this handy guide to the latest, most comprehensive information on proposal preparation. It offers in-depth coverage from expert practitioners on such important topics as writing incumbent proposals and strategies for preparing IR&D reports. It also includes 1992 information regarding federal guidelines on proposals and support for IR&D.

PARTIAL CONTENTS: Introduction; Preproposal Marketing; Making the Bid Decision; Managing the Proposal Effort; Organizing the Proposal; Writing the Proposal; Illustrating the Proposal; Proposals of the Future; Preparing IR&D Reports

304pp. (est.), LC92-29664, \$54.95
ISBN 0-7803-0431-4
PC0328-5

Advances in Thermal Modeling of Electronic Components and Systems, Volume 3 edited by A. Bar-Cohen and A. Kraus. November 1992.

This book offers a most cost-effective way for project managers, packaging engineers, and consultants to gain a clear picture of the state of the art in the modeling of thermal phenomena in electronic systems. Each chapter (designed to cover critical reviews of the recent literature) ensures a thorough understanding of current trends and concepts and provides a close look at the hottest modeling and analysis techniques.

PARTIAL CONTENTS: Physical Designs of Electronic Systems — Methodology, Technology Trends, and Future Challenges; The

Influence of Temperature on Integrated Circuit Failure Mechanisms; Methodologies for Thermal Analysis of Electronic Components and Systems; Thermal Stress Failures of Surface Mounted Components; Bibliography of Heat Transfer in Electronic Equipment — 1989

416pp. (est.), \$94.95
PC0345-9

THE LEADER MANAGER

Guidelines for Action

by William D. Hitt, Ph.D.
1988.

The Leader-Manager gives practical advice on the actions managers should take to become more effective leaders. Filled with sensible guidelines, this book explains how managers become leaders — people who empower their teams, plan and build toward the future, and oversee the creation of outstanding systems, products, and organizations.

PARTIAL CONTENTS: The Nature of Leadership; The Leader as Change Agent; Creating the Vision; Developing the Team; Clarifying the Values; Positioning; Communicating; Empowering; Coaching; Measuring

336pp., \$21.95
ISBN 0-7803-1007-1, Softcover
PP0356-6

(Please note: This is the IEEE edition of a book previously published by Battelle Press (ISBN 0-935470-40-9) under the same title.)

MANAGEMENT IN ACTION

Guidelines for New Managers

by William D. Hitt, Ph.D.
1986.

Effectively uniting theory and practice, **Management in Action** integrates the basics of management within an understandable framework of theory that is both meaningful and practical. The text provides a holistic view of management — in the form of a management model that can be easily adapted to the reader's particular situation.

PARTIAL CONTENTS: A Philosophy of Management; The Manager as an Effective Human Being; Leader Styles; Participative Management; Management by Objectives; Planning; Organizing; Staffing and Staff Development; Motivating; Controlling

304pp., \$21.95
ISBN 0-7803-1008-X, Softcover
PP0357-4

(Please note: This is the IEEE edition of a book previously published by Battelle Press (ISBN 0-935470-20-4) under the same title.)

IEEE

CONFERENCE
PROCEEDINGS

AEROSPACE AND ELECTRONIC SYSTEMS

COMPASS '92 - IEEE Proceedings of the Seventh Annual Conference on Computer Assurance; held June 15-18, 1992 in Gaithersburg, MD; sponsored by the IEEE Aerospace and Electronic Systems Society, the IEEE National Capital Area Council in cooperation with the British Computer Society.

COMPASS '92 was a study of high-integrity systems using digital computers. Highlights covered include: Verification; Security; Safety; Software Safety and Economics and Processes.

168 pp., LC 92-52720, \$52.00
ISBN 0-7803-0579-5 (paper)
ISBN 0-7803-0580-9 (case)
ISBN 0-7803-0581-7 (microfiche)
92CH3138-5 (OOP 1 AII/1C)

NAECON 1992 IEEE National Aerospace and Electronics Conference; held May 18-22, 1992 in Dayton, OH; sponsored by the IEEE Aerospace and Electronic Systems Society and the IEEE Dayton Section.

This year's theme, "Technology - Our Future," covers existing technology developments focusing on user's needs in the field of aerospace and electronics. Topics covered include: Digital Technology & Applications; Avionics Subsystem & Weapon Technology; Flight Control; Human Factors; Logistics/Acquisition Engineering and Electro-Optics.

1,752 pp., 3 vols., LC 79-640977, \$148.00
ISBN 0-7803-0652-X (paper)
ISBN 0-7803-0653-8 (case)
ISBN 0-7803-0654-6 (microfiche)
92CH3158-3 (OOP 1 AII/1C)

IEEE National Telesystems Conference, 1992, NTC-92; held May 19-20, 1992 in Washington, DC; sponsored by the IEEE Aerospace and Electronics Systems Society, the IEEE National Capital Area Council, the IEEE Atlanta Section and The George Washington University School of Engineering and Applied Science.

This conference covers the latest in research on space oriented systems and

equipment. Topics covered include: Radar Systems; Antennas; Global Positioning Systems; Navigation, Guidance and Control; Displays and Graphics-Based Telesystems; Remote Sensing and Signal Processing; Satellite-Based Communications Services; Telemetry and Broadband/Optical Communications.

368 pp., LC 91-59046, \$78.00
ISBN 0-7803-0554-X (paper)
ISBN 0-7803-0555-8 (case)
ISBN 0-7803-0556-6 (microfiche)
92CH3120-3 (OOP 1 AII/1C)

1992 IEEE International Conference on Systems Engineering; held Sept. 17-19, 1992 in Kobe, Japan; sponsored by the IEEE Aerospace and Electronic Systems Society, the Department of Electrical Engineering at Wright State University and the Pascal Research Institute in Kobe, Japan.

Systems engineering is understood as the integration of different areas of science and engineering including electrical and electronics, mechanical and materials, aerospace and astronautical, computers, industrial human factors and biomedicine. Selected highlights covered include: Adaptive Control; Multi-Dimensional DSP; Stochastic Signal Processing; Flexible Manufacturing Systems and Fuzzy Control.

672 pp., LC 92-53497, \$104.00
ISBN 0-7803-0734-8 (paper)
ISBN 0-7803-0735-6 (case)
ISBN 0-7803-0736-4 (microfiche)
92CH3179-9 (OOP 1 AII/1C)

ANTENNAS AND PROPAGATION

1992 IEEE Antennas and Propagation Society International Symposium; held July 20-24, 1992 in Chicago, IL; sponsored by the IEEE Antennas and Propagation Society.

This leading symposium explores the latest in antenna applications both military and commercial (media) including wire optics. Topics covered include: Beam Scanning and Array Feeds; Microstrip Arrays; Numerical and Experimental Rough Surface Scattering; Polarization Radar Calibration; Photonic Systems for Antenna Applications and Reflector Antennas and Components.

2,438 pp., 4 vols., LC 90-640397, \$134.00
ISBN 0-7803-0730-5 (paper)
ISBN 0-7803-0731-3 (case)
ISBN 0-7803-0732-1 (microfiche)
92CH3178-1 (OOP 1 AII/1D)

CIRCUITS AND SYSTEMS

1991 IEEE 34th Midwest Symposium on Circuits and Systems; held May 14-17, 1991 in Monterey, CA; sponsored by the IEEE Circuits and Systems Society and the Naval

Postgraduate School in cooperation with the IEEE Control Systems Society, the IEEE Education Society, the IEEE Industrial Electronics Society, the IEEE Instrumentation and Measurement Society, the IEEE Signal Processing Society and the IEEE Systems, Man and Cybernetics Society.

Broad in scope, this symposium presents new results in electronic circuits and systems, systems theory, discrete IC, and VLSI circuit design. Selected highlights include: Chaotic Systems; Neural Networks; Power Electronics; Digital Filters; Oscillators; Computer Modeling; Control Systems; Macro-modeling; Amplifiers and Multiprocessor Architectures.

1,122 pp., 2 vols., LC 79-645128, \$134.00
ISBN 0-7803-0620-1 (paper)
ISBN 0-7803-0621-X (case)
ISBN 0-7803-0622-8 (microfiche)
91CH3143-5 (OOP 1 AII/1A)

COMMUNICATIONS

IEEE International Conference on Communications, 1992, SUPERCOMM/IEEE '92; held June 14-18, 1992 in Chicago, IL; sponsored by the IEEE Communications Society and the IEEE Chicago Section.

Presenting state-of-the-art advances in communications and applications of artificial intelligence, this international conference covered such areas as: Wireless Communications; ATM Switching and Broadband Networking; Network Survivability Performance; Impact of Multimedia Services on Protocols; PCN Radio Systems Engineering; Propagation Effects in Satellite Communications; Wireless Local Area Networks; Advances in Data Communications; Photonic Networks and Advances in ATM Switching.

2,158 pp., 4 vols., LC 81-649547, \$186.00
ISBN 0-7803-0599-X (paper)
ISBN 0-7803-0600-7 (case)
ISBN 0-7803-0601-7 (microfiche)
92CH3132-8 (OOP 1 AII/1C)

IEEE 1st International Conference on Universal Personal Communications; held Sept. 29-Oct. 2, 1992 in Dallas, TX; sponsored by the IEEE Communications Society and the IEEE Dallas Section.

The rapid growth of Personal Communications Services (PCS) and consumer interest has led to the formation of the 1st International Conference on Universal Personal Communications. Topics covered include: Cellular and PCS Trials; RBOC PCS Trials; Monolithic Integrated Circuit Technologies for PCS; Regulatory Issues Impacting PCS Evolution and Wireless Business Communications.

474 pp., LC 92-52728, \$88.00

ISBN 0-7803-0591-4 (paper)
ISBN 0-7803-0592-2 (microfiche)
92TH0434-1 (OOP 6)

COMPONENTS, HYBRIDS & MANUFACTURING TECHNOLOGY

1992 IEEE 42nd Electronic Components & Technology Conference; held May 18-20, 1992 in San Diego, CA; sponsored by the IEEE Components, Hybrids & Manufacturing Technology Society and the Electronic Industries Association.

This premier international forum features perspectives on four important market segments for electronic components in the 1990's including surface mount technology, communications, computing systems, and multimedia technologies.

1,012 pp., LC 78-647174, \$175.00
ISBN 0-7803-0167-6 (paper)
ISBN 0-7803-0168-4 (case)
ISBN 0-7803-0169-2 (microfiche)
92CH3056-9 (OOP 1 AII/1D)

IEEE/SEMI International Semiconductor Manufacturing Science Symposium, 4th, 1992 (ISMSS 92); held June 15-16, 1992 in San Francisco, CA; sponsored by the IEEE Components, Hybrids, and Manufacturing Technology Society, the IEEE Electron Devices Society and the Semiconductor Equipment and Materials International.

This update of microprocessor and electron device manufacturing technology covers such topics as: Manufacturing Performance Characterization; Personal Empowerment, Teamwork & Organizational Systems; Productivity Tools and Systems and Evolving Technology.

160 pp., LC 92-53929, \$110.00
ISBN 0-7803-0680-5 (paper)
ISBN 0-7803-0681-3 (case)
ISBN 0-7803-0682-1 (microfiche)
92CH3161-7 (OOP 1 AII/1D)

COMPUTER

Proceedings Fifth International Workshop on Computer-Aided Software Engineering, CASE '92; held July 6-10, 1992 in Montreal, Quebec, Canada; sponsored by the IEEE Computer Society.

CASE '92 features efforts to identify critical bottlenecks that are keeping the software engineering community from realizing the full promise of computer-aided software engineers. Topics covered include: Environments and Tool Integration; Reverse Engineering and Design Recovery; Support for Formal Methods; Software Process Engineering and Evolution; Human-Computer Interface for CASE Design; Managing Complexity; Empirical Evaluation of CASE Im-

ment and Support for Engineering Disciplines in CASE.

354 pp., LC 92-71723, \$80.00
ISBN 0-8186-2960-6 (paper)
ISBN 0-8186-2962-2 (case)
ISBN 0-8186-2961-4 (microfiche)
92CH3166-6 (OOP 1 All/1E)

1992 IEEE Computer Vision and Pattern Recognition (CVPR '92); held June 15-18, 1992 in Champaign, IL; sponsored by the IEEE Computer Society.

This conference highlights advancements in research on computers and the relationship between vision, action, and task. Selected topics covered include: Invariants, Motion Sequences and Optical Flow; Range Images; Navigation and Recognition; Object Recognition and Morphology.

888 pp., LC 92-71519, \$130.00
ISBN 0-8186-2855-3 (paper)
ISBN 0-8186-2857-X (case)
ISBN 0-8186-2856-1 (microfiche)
92CH3168-2 (OOP 1 All/1E)

1992 European Design Automation Conference (EURO-DAC '92); held Sept. 7-10, 1992 in Hamburg, Germany; sponsored by the IEEE Computer Society and the Gesellschaft für Informatik e. V. (GI).

The latest information on use of computer and control systems in automation is the main focus of this conference. Topics covered include: Asynchronous Design Techniques; Module Generation; FSM Design; Topological Optimization in Routing; Unifying Data for CAD-Frames and Testing; Benchmark Experiments in Testing; VHDL Standardization '92 and Closing of Euro-VHDL/VHDL Language Analysis.

784 pp., LC 91-78306, \$120.00
ISBN 0-8186-2780-8 (paper)
ISBN 0-8186-2782-4 (case)
ISBN 0-8186-2781-6 (microfiche)
92CH3126-0 (OOP 1 All/1A/1E)

1992 IEEE Twenty-Second International Symposium on Fault-Tolerant Computing (FTCS-22); held July 8-10, 1992 in Boston, MA; sponsored by the IEEE Computer Society.

This international symposium addresses the latest advances in commercial fault tol-

erant design. Topics covered include: Recovery; Self-Checking and Diagnosis; Test Pattern Generation; Fault Injection; Wafer Testing and Defect Tolerance and Error-Correction Codes.

560 pp., LC 79-613257, \$90.00
ISBN 0-8186-2875-8 (paper)
ISBN 0-8186-2877-4 (case)
ISBN 0-8186-2876-6 (microfiche)
ISSN 0731-3071
92CH3155-9 (OOP 1 All/1E)

Proceedings The Twenty-Second International Symposium on Multiple-Valued Logic, ISMVL; held May 27-29, 1992 in Sendai, Japan; sponsored by the IEEE Computer Society and the Japan Research Group on Multiple-Valued Logic.

This international symposium provided a forum for the discussion of multiple valued logic research providing solutions to microelectronics interconnection problems and use of nonclassical logic for flexible human interfaces. Topics covered include: Logic Minimization; Neural Network; Circuit Design; Reliable Systems; Current Mode Circuits; VLSI; Algebra; Fuzzy Logic and EXOR Logic.

504 pp., LC 79-641110, \$90.00
ISBN 0-8186-2680-1 (paper)
ISBN 0-8186-2682-8 (case)
ISBN 0-8186-2681-1 (microfiche)
ISSN 0195-623X
92CH3113-8 (OOP 1 All/1E)

Proceedings of the Seventh Annual Structure in Complexity Theory Conference; held June 22-25, 1992 in Boston, MA; sponsored by the IEEE Computer Society.

Covering the latest in research for all areas of computational complexity, this conference covered such topics as: General Weighted Threshold Gates; Set Bit Enumeration; Graph Isomorphism Problem; Structural Complexity Theory; Universal Relations; Sparse Sets; Algebraic Decision Trees and Pseudorandom Sets.

364 pp., LC 92-71585, \$70.00
ISBN 0-8186-2955-X (paper)
ISBN 0-8186-2957-6 (case)
ISBN 0-8186-2956-8 (microfiche)
92CH3167-4 (OOP 1 All/1E)

Proceedings of the International Conference on Application Specific Array Processors; held August 4-7, 1992 in Berkeley, CA; sponsored by the Industrial Development Board for Northern Ireland, The National Science Foundation, The University of California at Berkeley in cooperation with the IEEE Computer Society.

This international conference has evolved to encompass new trends and new results in several key aspects of application specific

computing systems, including parallel algorithm/architecture, system implementation and real applications. Selected highlights include: Scheduling and Mapping; Parallel Architecture; Hardware Design Methodology and VLSI Architectures.

714 pp., LC 92-71724, \$98.00
ISBN 0-8186-2966-5 (paper)
ISBN 0-8186-2967-3 (microfiche)
92TH0453-1 (OOP 6)

Proceedings, The Computer Security Foundations Workshop V; held June 16-18, 1992 in Franconia, NH; sponsored by the IEEE Computer Society.

This annual workshop explored fundamental issues and current theories of security for computer systems and covered such topics as: Noninterference; Information Flow Models; Cryptographic Protocols; Models and Distributed Systems.

200 pp., LC 92-70737, \$60.00
ISBN 0-8186-2850-2 (paper)
ISBN 0-8186-2851-0 (microfiche)
92TH0447-3 (OOP 6)

1992 Fourth International Conference on Computing and Information, ICCI '92; held May 28-30, 1992 in Toronto, Canada; sponsored by the IEEE Computer Society, the Natural Sciences and Engineering Research Council of Canada (NSERC), the York University (Toronto) and the Laurentian University (Sudbury).

New results are presented in this international conference to cover the research, development, and applications in computing and information in order to promote an exchange of ideas between practitioners and theorists in the interdisciplinary fields of computing, communication and information theory. Topics covered include: Data Theory, Theory of Programming, Algorithms, and Computations; Concurrency and Parallelism; Distributed Computing and Communication and AI Methodologies, Expert Systems, Knowledge Engineering, and Machine Learning.

524 pp., LC 92-52645, \$98.00
ISBN 0-8186-2812-x (paper)
ISBN 0-818602811-1 (microfiche)
92TH0448-1 (OOP 6)

Proceedings of the Third Workshop on Future Trends of Distributed Computing Systems; held April 14-16, 1992 in Taipei, Taiwan; sponsored by the IEEE Computer Society.

The future trends of distributed computing systems are rapidly progressing in microelectronics and high-speed networking technologies. This workshop highlights such topics as: Distributed System Architec-

tures; Programming in Distributed Systems; High Speed Networking; Software Engineering; Large Scale Broadband Systems and Multimedia Systems.

438 pp., LC 91-78036, \$88.00
ISBN 0-8186-2755-7 (paper)
ISBN 0-8186-2756-5 (microfiche)
92TH0427-5 (OOP 6)

Proceedings EURO ASIC '92; held June 1-5, 1992 in Paris, France; sponsored by the IEEE Computer Society.

Presents state-of-the art ASICs such as design experiences, novel design methods and tools and the evolution of current development of industrial tools and methodology. Selected highlights include: PGA Synthesis; Integrated Systems; Architecture for Processors; Industrial Applications and DSP and Communication Circuits.

440 pp., LC 92-70736, \$90.00
ISBN 0-8186-2845-6 (paper)
ISBN 0-8186-2846-4 (microfiche)
92TH0442-4 (OOP 6)

The 1992 IEEE Workshop on Fault-Tolerant Parallel and Distributed Systems, Digest of Papers; held July 6-7, 1992 in Amherst, MA; sponsored by the IEEE Computer Society.

Experimental Systems, System-Level Diagnosis, Recovery Techniques and Fault-Tolerant Networks were the main topics covered in this workshop.

248 pp., LC 92-70947, \$64.00
ISBN 0-8186-2870-7 (paper)
ISBN 0-8186-2871-5 (microfiche)
92TH0449-9 (OOP 6)

Proceedings of the First International Symposium on High-Performance Distributed Computing (HPDC-1); held Sept. 9-11, 1992 in Syracuse, NY; sponsored by the IEEE Computer Society, the New York State Center for Advanced Technology in Computer Applications and Software Engineering at Syracuse University (CASE) and the Northeast Parallel Architectures Center (NPAC) at Syracuse University.

Comprehensive and up-to-date, this symposium addressed issues on the interface between parallel and distributed computing. Topics covered include: Tools and Programming Paradigm; High-Speed Networks and Protocols; Applications; Multimedia; Load Balancing and Distributed Systems.

296 pp., LC 92-71800, \$60.00
ISBN 0-8186-2970-3 (paper)
ISBN 0-8186-2971-1 (microfiche)
92TH0455-6 (OOP 6)

Proceedings 17th Conference on Local Computer Networks, 1992; held Sept. 13-

16, 1992 in Minneapolis, MN; sponsored by the IEEE Computer Society.

728 pp., LC 83-641144, \$110.00
ISBN 0-8186-3095-7 (paper)
ISBN 0-8186-3096-5 (microfiche)
ISSN 0742-1303
92TH0473-9 (OOP 6)

Proceedings of the Second International Workshop on Object Orientations in Operating Systems (IWOOS) 1992; held Sept. 24-25, 1992 in Dourdan, France; sponsored by the IEEE Computer Society.

400 pp., \$80.00
ISBN 0-8186-3015-9 (paper)
ISBN 0-8186-3016-7 (microfiche)
ISSN 1063-5351
92TH0477-0 (OOP 6)

Proceedings The Sixth International Parallel Processing Symposium; held March 23-26, 1992 in Beverly Hills, CA; sponsored by the IEEE Computer Society.

716 pp., LC 91-77505, \$110.00
ISBN 0-8186-2672-0 (paper)
ISBN 0-818602671-2 (microfiche)
92TH0419-2 (OOP 6)

Proceedings of the Second Symposium on Assessment of Quality Software Development Tools; held May 27-29, 1992 in New Orleans, LA; sponsored by the IEEE Computer Society.

A significant challenge today lies in the area of software quality and productivity. Tools are a key factor in achieving higher levels of quality and productivity. Topics covered in this symposium include: Evaluating Tools; Program Understanding; Layout and Presentation of Graphs and Design Methods.

336 pp., LC 91-76563, \$70.00
ISBN 0-8186-2620-8 (paper)
ISBN 0-8186-2621-6 (microfiche)
92TH0415-0 (OOP 6)

The Second International Workshop on Rapid System Prototyping; held June 11-13, 1991 in Research Triangle Park, NC; sponsored by the IEEE Computer Society and the Association for Computing Machinery.

This international workshop provided a forum for system designers, modeling and tool developers, integrated circuit designers and text experts to explore synergistic problems, issues, and techniques in the area of rapid system prototyping. Selected highlights include: Hardware Rapid Prototyping; Rapid System Prototyping Environments; Software Prototyping and Requirements Validation.

216 pp., LC 92-53954, \$70.00
ISBN 0-7803-0687-2 (paper)
ISBN 0-7803-0688-0 (microfiche)
91TH0454-9 (OOP 6)

Proceedings Scalable High Performance Computing Conference, SHPCC-92; held April 26-29, 1992 in Williamsburg, VA; sponsored by the IEEE Computer Society.

464 pp., LC 91-78234, \$90.00
ISBN 0-8186-2775-1 (paper)
ISBN 0-8186-2776-X (microfiche)
92TH0432-5 (OOP 6)

Proceedings 25th Annual Simulation Symposium; held April 6-9, 1992 in Orlando, FL; sponsored by The Society for Computer Simulation in cooperation with The IEEE Computer Society and The Association for Computing Machinery.

288 pp., LC 71-149514, \$60.00
ISBN 0-8186-2765-4 (paper)
ISBN 0-8186-2766-2 (microfiche)
92TH0433-3 (OOP 6)

Proceedings of the Fourth International Conference on Software Engineering and Knowledge Engineering (SEKE 92); held June 15-20, 1992 in Capri, Italy; sponsored by the IEEE Computer Society.

This international conference provided an opportunity for interaction between research and applications engineers about methodologies and techniques of software and knowledge engineering. Knowledge Engineering for Software Engineering, Rescue and Reverse Engineering, Expert Systems, Object-Oriented Methodologies and Software Process Management were the main topics covered.

656 pp., LC 92-70611, \$100.00
ISBN 0-8186-2830-8 (paper)
ISBN 0-8186-2831-6 (microfiche)
92TH0438-2 (OOP 6)

Proceedings of The Second International Conference on Systems Integration, Systems Integration '92, ICSI '92; held June 15-18, 1992 in Morristown, NJ; sponsored by the IEEE Computer Society.

By focusing on the management issues of large-scale integration, this conference provides a forum for the many crucial issues associated with successfully integrating various kinds of systems to achieve a goal. Highlights covered include: Software Prototyping, Software Process Model; Open Systems; Networking Issues and System Specifications.

772 pp., LC 90-85784, \$120.00
ISBN 0-8186-2697-6 (paper)
ISBN 0-8186-2696-8 (microfiche)
92TH0444-0 (OOP 6)

Proceedings 1992 IEEE Workshop on Visual Languages; held Sept. 15-18, 1992 in Seattle, Washington; sponsored by the IEEE Computer Society.

288 pp., LC 90-640177, \$70.00
ISBN 0-8186-3090-6 (paper)
ISBN 0-8186-3091-4 (microfiche)
ISSN 1049-2615
92TH0471-3 (OOP 6)

Proceedings IEEE Conference on Wireless LAN Implementation; held Sept. 17-18, 1992 in Dayton, OH; sponsored by the IEEE Computer Society.

88 pp., LC 91-76559, \$20.00
ISBN 0-8186-2625-9 (paper)
ISBN 0-8186-2626-7 (microfiche)
92TH0457-2 (OOP 6)

CONSUMER ELECTRONICS

IEEE International Conference on Consumer Electronics, 1992, ICCE; held June 2-4, 1992 in Rosemont, IL; sponsored by the IEEE Consumer Electronics Society.

Explores advances in technology for Consumer Electronic Products such as VCRs and CD audio systems. Topics covered include: Video Recording Technology; Closed Captions and Teletext; ATV Systems; Home Automation; Imaging Technology and IC Technology. Note, the papers are a digest of technical papers.

464 pp., LC 84-643147, \$86.00
ISBN 0-7803-0479-9 (paper)
ISBN 0-7803-0480-2 (case)
ISBN 0-7803-0481-0 (microfiche)
92CH3081-7 (OOP 1 All/1C)

CONTROL SYSTEMS

1992 American Control Conference; held June 24-26, 1992 in Chicago, IL; sponsored by the IEEE Control Systems Society.

Examines the "state-of-the-art" in control technology, cybernetics, fuzzy logic and neural networks in control. Highlights covered include: Advanced and Fault Tolerant Control of Automotive Systems; Control of Manufacturing Processes; Robust Stability; Adaptive control and Model Predictive Control.

3,436 pp., 4 vols., LC 91-58128, \$250.00
ISBN 0-7803-0210-9 (paper)
ISBN 0-7803-0211-7 (case)
ISBN 0-7803-0212-5 (microfiche)
92CH3072-6 (OOP 1 All/1A)

DIELECTRICS AND ELECTRICAL INSULATION

1992 IEEE International Symposium on Electrical Insulation; held June 7-10, 1992 in Baltimore, MD; sponsored by the IEEE Dielectrics and Electrical Insulation Society. (formerly the IEEE Electrical Electronics Insulation Conference)

The latest advances in research on the development of insulating materials, understanding related electrical phenomena and their applications were the main focus of this international symposium. Topics covered include: Multistress Aging; Partial Discharge Measurements; Phenomena at Interfaces; Properties of Liquid and Gaseous Insulation; Space-Power Insulation; Insulation for Capacitors and Cables; Diagnostic and Measurement Methods; High-Voltage Insulation and Basic Properties of Materials.

516 pp., LC 92-53843, \$100.00
ISBN 0-7803-0713-5 (paper)
ISBN 0-7803-0651-1 (case)
ISBN 0-7803-0650-3 (microfiche)
92CH3150-0 (OOP 1 All/1B)

ELECTROMAGNETIC COMPATIBILITY

IEEE 1992 International Symposium on Electromagnetic Compatibility; held Aug. 17-21, 1992 in Anaheim, CA; sponsored by the IEEE Electromagnetic Compatibility Society.

560 pp., LC 83-645449, \$96.00
ISBN 0-7918-0713-5 (paper)
ISBN 0-7803-0714-3 (case)
ISBN 0-7803-0715-1 (microfiche)
92CH3169-0 (OOP 1 All/1C)

ELECTRON DEVICES

1992 IEEE Custom Integrated Circuits Symposium; held May 3-6, 1992 in Boston, MA; sponsored by the IEEE Electron Devices Society with cooperation from the IEEE Solid State Circuits Council.

866 pp., LC 85-653738, \$118.00
ISBN 0-7803-0246-X (paper)
ISBN 0-7803-0247-8 (case)
ISBN 0-7803-0248-6 (microfiche)
92CH3078-3 (OOP 1 All/1D)

1992 27th Intersociety Energy Conversion Engineering Conference (IECEC 1992); held Aug. 3-7, 1992 in San Diego, CA; sponsored by the IEEE Electron Devices Society and the IEEE Aerospace and Electronic Systems Society.

Broad in scope, IECEC 1992 explores engineering aspects of energy conversion, advanced and unconventional energy systems and devices and energy policy im-

plications for research, development and utilization of these technologies. Selected highlights include: Batteries for Space Application; Magnetohydrodynamics; Terrestrial Electric Propulsion; Alternative Fuels; New Technologies for Energy Utilization; and Environmental Impacts.

2,870 pp., 6 vols., LC 92-80985, \$296.00
ISBN 1-56091-264-2 (paper)
ISBN 0-7803-0693-7 (case)
ISBN 0-7803-0694-5 (microfiche)
92CH3164-1 (OOP 1 All/1C/1D)

1992 IEEE International Symposium on Power Semiconductor Devices and ICs (ISPSD '92); held May 12-21, 1992 in Tokyo, Japan; sponsored by the IEEE Electron Devices Society and the Institute of Electrical Engineers of Japan.

368 pp., \$78.00
ISBN 0-7803-0813-1 (paper)
ISBN 0-7803-0814-X (case)
ISBN 0-7803-0815-8 (microfiche)
92CH3208-6 (OOP 1 All/1D)

1992 Symposium on VLSI Technology; held June 2-4, 1992 in Seattle, WA; sponsored by the IEEE Electron Devices Society and the Japan Society of Applied Physics.

Covers the latest in silicon technology for memories, microprocessors, computer and telecommunications. Highlighted topics include: DRAM Technology; BiCMOS; Bipolar Technology; MOSFETs; Low-Temperature Devices and Lithography. Note, this is a digest of technical papers.

130 pp., LC 90-655131, \$50.00
ISBN 0-7803-0698-8 (paper)
ISBN 0-7803-0699-6 (case)
ISBN 0-7803-0700-3 (microfiche)
92CH3172-4 (OOP 1 All/1D)

IEEE Solid-State Sensor and Actuator Workshop; held June 22-25, 1992 in Hilton Head Island, SC; sponsored by the IEEE Electron Devices Society.

Chemical Sensors, Magnetic Sensors, Accelerometers, Materials and Processing Resonant Devices and Actuators were the main topics covered in this workshop.

230 pp., LC 91-58232, \$62.00
ISBN 0-7803-0456-X (paper)
ISBN 0-7803-0457-8 (microfiche)
92TH0403-6 (OOP 6)

INDUSTRIAL ELECTRONICS

1992 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS '92); held July 7-10, 1992 in Raleigh, NC; sponsored by the IEEE Industrial Electronics Society, the IEEE Robotics and Automation Society, The Robotics Society of Japan, The

Society of Instrumentation and Control Engineers - Japan and The New Technology Foundation - Japan.

Addresses sensor-based robotics and opportunities for industrial applications. The theme, "Sensor-Based Robotics and Opportunities for Its Industrial Applications" highlights the synergistic use of multiple sensors of different types and modalities to increase the capabilities of intelligent robots and systems. Topics covered include: Force/Torque Sensing; 2-D Vision; Robot Task Planning; Ultrasonic Sensing in Robotics; Position Control; Parts Mating; Motion Planning; Object Recognition and Scene Understanding; 3-D Vision and Assembly Planning.

2,304 pp., 3 vols., LC 92-53498, \$192.00
ISBN 0-7803-0737-2 (paper)
ISBN 0-7803-0738-0 (case)
ISBN 0-7803-0739-9 (microfiche)
92CH3181-5 (OOP 1 All/1A/1B)

Proceedings International Workshop on Advanced Communications and Applications for High Speed Networks (IWACA '92); held March 16-19, 1992 in Munich, Germany; sponsored by the IEEE Industrial Electronics Society and Virginia's Center for Innovative Technology.

High speed networking is covered in this international workshop in practice- and application-orientation. Highlights covered include: Network Security Concepts; Advanced Network Management Concepts; Protocol Performance and Efficiency; Multimedia Application; Fiber Optic Technologies and Configurations and LAN-WAN-MAN Interworking.

470 pp., \$88.00
ISBN 0-7803-0764-X (paper)
ISBN 0-7803-0765-8 (microfiche)
92TH0466-3 (OOP 6)

Proceedings IROS '91 IEEE/RSJ International Workshop on Intelligent Robots and Systems '91; held Nov. 3-5, 1991 in Osaka, Japan; sponsored by the IEEE Industrial Electronics Society, the Robotics Society of Japan, the Society of Instrument and Control Engineers, the New Technology Foundation in cooperation with the IEEE Robotics and Automation Society, the Institute of Systems, Control and Information Engineers and the Japan Society of Mechanical Engineers.

1,816 pp., 3 vols., LC 91-55201, \$170.00
ISBN 0-7803-0067-X (paper)
ISBN 0-7803-0068-8 (microfiche)
91TH0375-6 (OOP 6)

Proceedings of the Intelligent Vehicles '92 Symposium; held June 29-July 1, 1992 in Detroit, MI; sponsored by the IEEE Indus-

trial Electronics Society and co-sponsored by the IEEE Neural Nets Council, the IEEE Vehicular Technology Society, the American Society of Mechanical Engineers, the Society of Automotive Engineers and the Society of Automotive Engineers, Japan.

The new era we are approaching of driving intelligent vehicles on intelligent highways raises issues of both social and system implications. This symposium covered such topics as: Hierarchical Vision System; Collision-Avoidance System; Road Geometry; Vehicle Guidance; Automatic Driving Systems for Rough-Roads; Intelligent Cruise Control with Fuzzy Logic; Autonomous Vehicle Using Multiple Observed Point Information; Autonomous Navigation Abilities and Intelligent Manoeuvring and Execution Control.

416 pp., LC 92-54401, \$180.00
ISBN 0-7803-0747-X (paper)
ISBN 0-7803-0748-8 (microfiche)
92TH0468-9 (OOP 6)

INDUSTRY APPLICATIONS

1992 IEEE Cement Industry Technical Conference XXXIV; held May 10-14, 1992 in Dallas, TX; sponsored by the IEEE Industry Applications Society.

Covers electrical systems and equipment for the cement industry. Topics covered include: New Concepts in Low Voltage Motor Control Centers; Variable Speed Drives on Large Centrifugal Fans; America's Call to Action in the War on Wastes and Performance of a Total Hydrocarbon Analyzer.

460 pp., LC 92-53953, \$130.00
ISBN 0-7803-0689-9 (paper)
ISBN 0-7803-0690-2 (case)
ISBN 0-7803-0691-0 (microfiche)
92CH3165-8 (OOP 1 All/1B)

1992 Annual Pulp and Paper Industry Technical Conference; held June 8-12, 1992 in Portland, OR; sponsored by the IEEE Industry Applications Society.

This important annual conference covers electrical systems and equipment for pulp and paper industry. Highlights covered were: Operating Efficiency of A.C. Motors; Power System Engineers; Tension Control; Upgrading Obsolete Switchgear; Industrial Power Systems Computation Techniques; Induction Motors and Construction Contract Trends.

240 pp., LC 74-13600, \$62.00
ISBN 0-7803-0617-1 (paper)
ISBN 0-7803-0618-X (case)
ISBN 0-7803-0619-8 (microfiche)
ISSN 0190-2172
92CH3142-7 (OOP 1 All/1B)

IEEE 1992 Annual Textile, Fiber and Film Industry Technical Conference; held May 6-7, 1992 in Charlotte, NC; sponsored by the IEEE Industry Applications Society.

Practical electrotechnology applications for the textile, fiber and film industries were the main focus of this conference. Selected highlights include: Reduced Voltage Motor Starters; Issue Facing Engineers in Industry; Industrial Power Considerations; Power Distribution Monitoring; A-C Induction Motors and Large Horsepower AC Motors.

88 pp., LC 90-647367, \$38.00
ISBN 0-7803-0596-5 (paper)
ISBN 0-7803-0597-3 (case)
ISBN 0-7803-0598-1 (microfiche)
ISSN 1049-3328
92CH3135-1 (OOP 1 All/1B)

INSTRUMENTATION AND MEASUREMENT

1992 IEEE Instrumentation and Measurement Technology Conference; held May 12-14, 1992 in Secaucus, NJ; sponsored by the IEEE Instrumentation and Measurement Society, the IEEE North Jersey Section and the IEEE NY/NJ/LI & M Chapter.

Addresses new topic areas in instrumentation and measurement including: sigma delta, neural networks; hadam and spectroscopy and downhole instrumentation for the oil drilling industry. Topics covered include: System Identification; Time Domain Measurements; Downhole Instrumentation; A D Cs and Quantization; Power Measurements; Networked Instruments; Standards & Calibration and Modeling & Optimization.

748 pp., LC 92-53842, \$110.00
ISBN 0-7803-0640-6 (paper)
ISBN 0-7803-0640-4 (case)
ISBN 0-7803-0642-2 (microfiche)
92CH3151-8 (OOP 1 All/1B)

LASERS AND ELECTRO-OPTICS

1992 IEEE LEOS Summer Topical Meetings Digest on Broadband Analog and Digital Optoelectronics; held July 29-30, 1992 in Santa Barbara, CA; sponsored by the IEEE Lasers and Electro-Optics Society. **Optical Multiple Access Networks;** held Aug. 3-5, 1992 in Santa Barbara, CA; sponsored by the IEEE Lasers and Electro-Optics Society and the IEEE Communications Society. **Integrated Optoelectronics;** held Aug. 5-7, 1992 in Santa Barbara, CA; sponsored by the IEEE Lasers and Electro-Optics Society and the IEEE Electron Devices Society. **Smart Pixels;** held Aug. 10-12, 1992; sponsored by the IEEE Lasers and Electro-Optics Society.

IEEE LEOS Topical Meetings offer varied programs on leading edge technology. This years' meetings provided three topics of in-

terest to most engineers: Broadband Analog and Digital Optoelectronics, Optical Multiple Access Networks, Integrated Optoelectronics and new this year Smart Pixels.

Highlights from **Broadband Analog & Digital Optoelectronic** include: Analog Systems; Multichannel Video Distribution; Digital Video and Compression Techniques; Digital Transmission Technology and Linearization & Harmonic Distortion. **Optical Multiple Access Networks** topics include: Networking & Component Issues; Photonic Switch Architecture; ATM Photonic Switches; Wavelength-Division Techniques; Optical Network Evolution; Multihop WDM Networks; Time Domain Technologies; Multiple Channel Networks; Optical Network Components and Single HOP Networks.

Integrated Optoelectronics included such topics as: Applications; PICs; OEICs; Components and Packaging/Processing. Highlights from **Smart Pixels** include: VLSI/Liquid Crystal SLMs; Optical/Electronic Device Integration; Vertically Integrated Devices; Interconnects and VCSELs; Optical Switching and Processing; QW Smart Pixels; Optics and Optomechanics; Neural Networks and Modulations.

334 pp., LC 91-77849, \$74.00
ISBN 0-7803-0522-1 (paper)
ISBN 0-7803-0523-X (microfiche)
92TH0421-8 (OOP 6)

1992 IEEE 4th International Conference on Indium Phosphide and Related Materials; held April 21-24, 1992 in Newport, RI; sponsored by the IEEE Lasers and Electro-Optics Society and the IEEE Electron Devices Society.

706 pp., LC 91-77922, \$106.00
ISBN 0-7803-0529-9 (paper)
ISBN 0-7803-0530-2 (case)
ISBN 0-7803-0531-0 (microfiche)
92CH3104-7 (OOP 1 All/1D)

1992 Conference on Lasers and Electro-Optics; held May 10-15, 1992 in Anaheim, CA; sponsored by the IEEE Lasers and Electro-Optics Society.

The premier forum in the field, CLEO'92 maintained its focus on state-of-the-art advances and provided an update and review of a wide range of laser and electro-optic

disciplines, from device development to systems engineering and applications. Topics covered include: Gas and Free-Electron Lasers; Solid-State and Liquid Lasers; Semiconductor Lasers; Optical Materials and Fabrication and Lightwave Communications. Note: only summaries of papers are contained in this conference proceedings.

640 pp., LC 92-80621, \$102.00
ISBN 1-55752-237-5 (paper)
ISBN 0-7803-0664-3 (case)
ISBN 0-7803-0665-1 (microfiche)
92CH3154-2 (OOP 1 All/1D)

1992 IEEE/LEOS 6th International Conference on Metalorganic Vapor Phase Epitaxy; held June 8-11, 1992 in Cambridge, MA; sponsored by the IEEE Lasers and Electro-Optics Society and the American Association for Crystal Growth.

In this sixth international conference, the highlights include: Novel Sources; Selective Epitaxy; In Situ Characterization; GaAs Based Lasers; Sb-Compounds; Low-Dimensional Structures; In Based Laser and Interface Control and Characterization.

306 pp., LC 90-85775, \$70.00
ISBN 0-87942-652-7 (paper)
ISBN 0-87942-654-3 (microfiche)
92TH0459-8 (OOP 6)

1992 Conference on Quantum Electronics and Laser Science; held May 10-15, 1992 in Anaheim, CA; sponsored by the IEEE Lasers and Electro-Optics Society.

QUELS'92 is dedicated to fundamental research in quantum electronics and lasers as well as to their use in basic science. This conference also provides insight into the basic research of lasers, nonlinear optics, and fundamental laser spectroscopy of atoms and condensed matter. Topics covered include: Atom Manipulation; Laser Spectroscopy; Quantum Noise Reduction in Lasers; Molecular and Atomic Dynamics; Lasers in Biophysics; Ultrafast Semiconductor Laser Dynamics; Novel Coherent Sources and Quantum Wires and Dots. Note: Only summaries are contained of papers presented.

328 pp., LC 91-80623, \$72.00
ISBN 1-55752-239-1 (paper)
ISBN 0-7803-0662-7 (case)
ISBN 0-7803-0663-5 (microfiche)
92CH3153-4 (OOP 1 All/1D)

MICROWAVE THEORY AND TECHNIQUES

1992 IEEE Microwave and Millimeter-Wave Monolithic Circuits Symposium; held June 1-3, 1992 in Albuquerque, NM; sponsored by the IEEE Microwave Theory and Tech-

niques Society and cooperatively sponsored by the IEEE Electron Devices Society.

This MMIC symposium promotes an emerging technology that will impact the microwave industry similar to the way silicon integrated circuits revolutionized computers and consumer electronics. Selected highlights include: Low-Noise and Low-Power Amplifiers; Subsystems; GaAs Monolithics and Frequency Converters and Mixers.

232 pp., LC 88-640066, \$62.00
ISBN 0-7803-0677-5 (paper)
ISBN 0-7803-0678-3 (case)
ISBN 0-7803-0679-3 (microfiche)
92CH3162-5 (OOP 1 All/1D)

1992 IEEE Topical Meeting on Electrical Performance of Electronic Packaging; held April 22-24, 1992 in Tucson, AZ; sponsored by the IEEE Microwave Theory and Techniques Society with the participation of the IEEE Components, Hybrids and Manufacturing Technology Society.

Papers presented at this topical meeting cover the electrical aspects of electronic packaging through design, analysis and characterization of interconnect and package structures, as well as radiation and electromagnetic compatibility issues relating to these structures. Subjects covered include: Design; Novel Designs and Structures; Optical Interconnects; Microwave Packaging; Modeling; Measurements; Simulation and EMI/EMC.

206 pp., LC 92-53930, \$58.00
ISBN 0-7803-0683-X (paper)
ISBN 0-7803-0684-8 (microfiche)
92TH0452-3 (OOP 6)

NEURAL NETWORKS COUNCIL

1992 IEEE/INNS International Joint Conference on Neural Networks; held June 7-11, 1992 in Baltimore, MD; sponsored by the IEEE Neural Networks Council and the International Neural Network Society.

Focuses on all aspects of the science and technology of neural networks including theory, design and applications of software and hardware. Highlights include: Artificially Intelligent Neural Networks; Neural Fuzzy Systems; Robotics and Control and Neurocognition.

4,012 pp., 4 vols., LC 91-59048, \$254.00
ISBN 0-7803-0559-0 (paper)
ISBN 0-7803-0560-4 (case)
ISBN 0-7803-0561-2 (microfiche)
92CH3114-6 (OOP 1 All/1A/1B/1C/1D/1F)

NUCLEAR AND PLASMA SCIENCES

1992 IEEE International Conference on Plasma Science; held June 1-3, 1992 in Tampa, FL; sponsored by the IEEE Nuclear and Plasma Sciences Society.

Presents the state-of-the-art in research for plasma science and associated fields. Contains summaries to the papers presented. Topics covered include: Plasma Diagnostics; Magnetic Fusion; Intense Beam Microwaves; Ultrafast Z-Pinches; Magnetohydrodynamics; X-Ray Lasers and Plasmas for Lighting.

200 pp., \$58.00
ISBN 0-7803-0716-X (paper)
ISBN 0-7803-0717-8 (microfiche)
ISBN 0-7803-0749-6 (casebound)
ISSN 0730-9244
92CH3184-9 (OOP 1 All/1B)

POWER ELECTRONICS

IEEE Intelec, Fourteenth International Telecommunications Energy Conference, 1992; held Oct. 4-8, 1992 in Washington, D.C.; sponsored by the IEEE Power Electronic Society. NOTE: Conference has new sponsor this year, IEEE Power Electronics Society, previously it was sponsored by the IEEE Communications Society.

564 pp., LC 88-656128, \$96.00
ISBN 0-7803-0779-8 (paper)
ISBN 0-7803-0780-1 (case)
ISBN 0-7803-0781-X (microfiche)
92CH3195-5 (OOP 1 All/1B/1C)

SIGNAL PROCESSING

1992 IEEE ICASSP, International Conference on Acoustics, Speech, and Signal Processing; held March 23-26, 1992 in San Francisco, CA; sponsored by the IEEE Signal Processing Society.

ICASSP is an important international proceeding devoted to the theoretical and experimental aspects of signal processing, speech and acoustics. Topics covered include: Language Modeling & Speech Understanding; Algorithms for Recognition; Robust Speech Coding; Array Processing; Random Fields & Texture Analysis; MDSP Theory; Signal Reconstruction; Wavelets; Filter Design and Spectral Analysis.

3,488 pp., 5 vols., LC 84-645139, \$240.00
ISBN 0-7803-0532-9 (paper)
ISBN 0-7803-0533-7 (case)
ISBN 0-7803-0534-5 (microfiche)
92CH3103-9 (OOP 1 All/1A)

IEEE Signal Processing Society Seventh Workshop on Multidimensional Signal Processing; held Sept. 23-25, 1991 in Lake Placid, NY; sponsored by the IEEE Signal Processing Society.

This workshop provided a forum for the discussion of new theoretical developments in multidimensional signal processing applications to real-world problems. NOTE: This contains summaries only to the papers presented. Highlights include: Parallel Architectures; Video Coding; Medical Applications; Spectral Estimation; Computer Vision; Segmentation; Global Models and Basic MDSP Theory.

212 pp., \$58.00
ISBN 0-7803-0766-6 (paper)
ISBN 0-7803-0676-4 (microfiche)
91TH0476-2

Neural Networks for Signal Processing II, Proceedings of the 1992 IEEE-SP Workshop; held Aug. 31-Sept. 2, 1992 in Helsingør, Denmark; sponsored by the IEEE Signal Processing Society.

This workshop was designed to serve as a regular forum for researchers from universities and industry who are interested in interdisciplinary research on neural networks for signal processing applications. Topics covered include: Learning Theory; Neural Models; Speech Processing; Pattern Recognition; Image Processing; System Identification and Prediction; Signal Processing and System Implementation.

644 pp., LC 91-59047, \$70.00
ISBN 0-7803-0557-4 (casebound)
ISBN 0-7803-0578-2 (microfiche)
92TH0430-9 (OOP 6)

SOLID-STATE CIRCUITS COUNCIL

1992 Symposium on VLSI Circuits; held June 4-6, 1992 in Seattle, WA; sponsored by the IEEE Solid-State Circuits Council and The Japan Society of Applied Physics.

This symposium presents the latest in "state-of-the-art" for the design of integrated circuits including advances in microprocessors, memories and analog and digital circuit techniques. Highlights covered include: Microprocessors; SRAM; Integrated Sensors; Substrate Noise and SOI Circuits; DRAM Innovations and Directions; Communications Circuits; Circuit Techniques and Data Converters.

130 pp., \$50.00
ISBN 0-7803-0701-1 (paper)
ISBN 0-7803-0702-X (case)
ISBN 0-7803-0703-8 (microfiche)
92CH3173-2 (OOP 1 All/1A)

ULTRASONICS, FERROELECTRICS AND FREQUENCY CONTROL

IEEE 1991 Ultrasonics Symposium; held Dec. 8-11, 1991 in Lake Buena Vista, FL; sponsored by the IEEE Ultrasonics, Ferroelectrics and Frequency Control Society.

The latest research on generation, transmission and detection of bulk and surface mechanical wave and applications in industry is the main focus of this symposium. Subjects covered include: SAW Filters; Resonators and Bulk Waves; Acoustic Microscopy; NDE; Tissue Characterization and Dosimetry; Flow Measurement and Therapeutics.

1,436 pp., 2 vols., LC 73-641406, \$152.00
ISBN 0-7803-0460-8 (paper)
ISBN 0-7803-0461-6 (case)
ISBN 0-7803-0462-4 (microfiche)
ISSN 1051-0117
91CH3079-1 (OOP 1 All/1D)

VEHICULAR TECHNOLOGY

Proceedings of the 1992 ASME/IEEE Spring Joint Railroad Conference; held March 31-April 2, 1992 in Atlanta, GA; sponsored by the IEEE Vehicular Technology Society and the American Society of Mechanical Engineers.

Antennas, CDMA, Digital Receiver Processing, Indoor Systems, Land Mobile Radio, Packet Radio, Airborne Mobile and Vehicle Electronics were the main topics covered in this conference.

100 pp., LC 90-664036, \$48.00
ISBN 0-7918-0672-3 (paper)
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IEEE Transactions on Consumer Electronics, Vol. 38, No. 3, Aug. 1992.
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pp. 5-54, \$20.00, JP0688-2

Field-Programmable Gate Arrays; IEEE Design & Test of Computers, Vol. 9, No. 3, Sept. 1992.

pp. 3-81, \$20.00, JP0787-2

Fuzzy and Neural Networks; IEEE Communications Magazine, Vol. 30, No. 9, Sept. 1992.

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Fuzzy Logic and Neural Networks; IEEE Transactions on Neural Networks, Vol. 3, No. 5, Sept. 1992.

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1991 IEEE GaAs Integrated Circuits Symposium; held Oct. 20-23, 1991 in Monterey, CA; sponsored by the IEEE Electron Devices Society and the IEEE Microwave Theory and Techniques Society. IEEE Journal of Solid-State Circuits, Vol. 27, No. 10, Oct. 1992.

NOTE: Contains 16 full-length papers and 9 brief papers.
pp. 1311-1469, \$20.00, JP1162-7

High-Power Microwave Generation; IEEE Transactions on Plasma Science, Vol. 20, No.3, June 1992.

pp. 109-402, \$20.00, JP1015-7

High-Power Microwaves; IEEE Transactions on Electromagnetic Compatibility, Vol. 34, No. 3, Aug. 1992, Part I.
pp. 145-274, \$20.00, JP0843-3

1991 37th IEEE Holm Conference on Electrical Contracts; held Oct. 6-9, 1991 in Chicago, IL; sponsored by the IEEE Components, Hybrids, and Manufacturing Technology Society. 11 selected papers.
pp. 145-224, \$20.00, JP0745-0

IGARSS '91 - 1991 IEEE International Geoscience and Remote Sensing Symposium; held June 3-6, 1991 in Espoo, Finland; sponsored by the IEEE Geoscience and Remote Sensing Society. IEEE Transactions on Geoscience and Remote Sensing, Vol. 30, No. 4, July 1992. 23 papers included.

pp. 660-844, \$20.00, JP0864-9

INTERMAG '92, The 1992 International Magnetism Conference; held April 13-16, 1992 in St. Louis, MO; sponsored by the IEEE Magnetism Society. IEEE Transactions on Magnetism, Vol. 28, No. 5, Sept. 1992, Part II.

pp. 2097-3342, \$20.00, JP

ISDN; IEEE Communications Magazine, Vol. 30, No. 8, Aug. 1992.

pp. 14-64, \$20.00, JP0769-0

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Medical Communications; IEEE Journal on Selected Areas in Communications, Vol. 10, No. 7, Sept. 1992.
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Neural Network Software and Systems; IEEE Transactions on Software Engineering, Vol. 18, No. 7, July 1992.
pp. 549-653, \$20.00, JP1044-7

Optical Character Recognition; Proceedings of the IEEE, Vol. 80, No. 7, July 1992.
pp. 1027-1209, \$20.00, JP1199-9

Packaging; IEEE Transactions on Components, Hybrids, and Manufacturing Technology, Vol. 15, No. 4, Aug. 1992.
pp. 409-582, \$20.00, JP1381-3

1991 International Joint Power Generation Conference (JPGC '91); held Oct. 6-9, 1991 in San Diego, CA; sponsored by the IEEE Power Engineering Society. IEEE Transactions on Power Systems, Vol. 7, No. 3, Aug. 1992. 7 selected papers. Note: these are the only published papers on this conference to date.
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