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%

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.
Ask*IEEE continued from p. 1
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One invoice and a simple price will cover all fees, including copyright. "All a customer has to do is pick up the telephone anywhere in the world — or contact us via the Internet or Dialer's DialOrder or other e-mail systems — and have his or her credit card handy," says Phyllis Hall, IEEE Director of Publishing Services.

Payment options available
Ask*IEEE offers different payment options for your convenience: semimonthly invoicing, credit cards (Visa, MasterCard, American Express, Diners Club) and deposit account.

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 move to alternate forms of delivery is only a prelude to better things to come.

For more information, contact:
Ask*IEEE Attn: Manager Document Delivery P.O. Box 4327


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 businesses developing new products.

PARTIAL CONTENTS: The European Community
393pp. (est.), L532-07689, $32.95 ISBN 0-7803-0433-0 PC0330-1

Implementing Configuration Management
Hardware, Software, and Firmware by Fletcher J. Buckley, General Electric, Moonstone, N.J. January 1993
The first book to cover software, hardware, 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 publication requirements. Explains 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 Status Accounting; MOSFET-C Filters; Additional Implementation Topics; List of Figures; List of Tables

Providing a fascinating alternative to the unwieldy life science sources, this book describes how the nervous system (including the brain) communicates with us, sends signals to, and receives inputs from the sensory organs. Starting with the basic principles, the authors unfold the mystery of this communication system in simple, elegant mathematical formulations 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, Part I: Visual Pattern Recognition and "Household Chores"; Three-Neuron Interactions

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 visualization for scientists, engineers, and other researchers. It presents actual examples of visualization techniques that are easy to understand and apply. This book 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 scientists, engineers, 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...
THE LEADER MANAGER
Guidelines for Action
by William D. Hitt, Ph.D.
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 to
view the future, and overcome the creation
of outstanding systems, products, and or-
ganizations.
PARTIAL CONTENTS: The Nature of Lead-
ership; The Leader as Change Agent; Cre-
ating the Vision; Developing the Team;
Clarifying the Values; Positioning; Commu-
nication, Delegation, and Troubleshooting.

COMPASS ’92 - II IEEE Proceedings of the
Seventh Annual Conference on Aerospace and
Electronic Systems: Assurance; held June 15-18, 1992 in Gay-
thersburg, MD; sponsored by the IEEE Aero-
space and Electronic Systems Society, the
IEEE National Capital Area Council in co-
operation 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 Pro-
cessing.

NEACON 1992 IEEE National Aerospace and
Electronics Conference; held May 18-
22, 1992 in Dayton, OH; sponsored by the
IEEE Aerospace and Electronic Systems Soci-
ety and the IEEE Dayton Section.
This year’s theme, “Technology: Our Fu-
ture,” covers existing technology develop-
ment and future technology in the field of
aerospace and electronics. Topics covered
include: Digital Technology & Applica-
tions, Avionics Subsystem & Weapon
Technology; Flight Control; Human Factors; Logistics/Aviation Engineering and Elec-
trical Systems; 1,753 p., vol. 3; ISBN-7806-077-9; $148.00
ISBN 7806-066-8 (case)
92CH319-5 (OP 1 All/1)
92CH321 (OP 1/1 All)

1992 IEEE Telesystems Conference, 1992, NTC-92; held May 19-20, 1992 in Washington, DC; sponsored by the IEEE Telesystems Society, the IEEE National Capital Area Council, the IEEE Atlantic Section and the George Washington University School of Engineer-
ing and Applied Science.
This conference covers the latest in re-
search on space oriented systems and

1992 IEEE 42nd Electronic Components &
Technology Conference; held May 18-20, 1992 in San Diego, CA; sponsored by the IEEE Components, Hybrids \& Manufactur-
ing Technology Society and the Electronic Information Processing Society.

IEEE International Conference on Communi-
Cations, 1992, SUPERCOMM/IEEE ’92; held June 14-18, 1992 in Chicago, IL, spon-
sored by the IEEE Communications Society and the IEEE Chicago Section.

92CH311 (OP 1/1 All)
92CH318-3 (OP 4 All/1)


IEEE 46th Midwest Symposium on Circuits and Systems; held August 14-17, 1991 in Monterrey, CA; sponsored by the IEEE Cir-
cuits 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 Nuclear Science Society, the IEEE Power Engineering Society and the IEEE Systems, Man and Cybernetics Society.

IEEE Computer Society.

IEEE Components, Hybrids & Manufacturing Technology Society.

This leading symposium explores the latest in antenna applications both military and commercial (media) including wireless optics. Topics covered include: Antennas and Array Feeds; Microstrip Arrays; Nu-
mental and Experimental Rough Surface Scat-
ing; Radar Cross Section; Radar Calibration; Photonic Systems for Antenna Applications and Reflector Antennas and Components.

IEEE 1st International Conference on Uni-
erial 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 Communica-
tions' market potential and consumer interest has led to the formation of the 1st Interna-
tional Conference on Universal Personal Communication. Topical topics covered include: Cellular and PCS Trials; RBOC PCS Trials; Multinational Integrated Circuit Technologies for PCS; Regulatory Issues Impacting PCS Evolution and Wireless Business Communications.

IEEE 46th Midwest Symposium on Circuits and Systems; held August 14-17, 1991 in Monterrey, CA; sponsored by the IEEE Cir-
cuits 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 Nuclear Science Society, the IEEE Power Engineering Society and the IEEE Systems, Man and Cybernetics Society.

IEEE International Conference on Communi-
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1992 European Design Automation Conference (EURO-DAC '92), held Sept. 7-10, 1992 in Hamburg, Germany; sponsored by the society (with co-sponsors including the Gesellschaft für Informationstechnik e. V. (GII)).

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REGION VII
1992 IEEE International Conference on Selected Topics in Wireless Communications; held June 25-26, 1992 in Vancouver, B.C., Canada; sponsored by IEEE Canada in cooperation with IEEE Vancouver Section, BC Advanced Systems Institute, National Wireless Communications Research Foundation, TR Labs, CITI, and TRIO. This is the first conference proceedings on wireless communications. With the new, innovative services being proposed based on existing technologies, this conference comes at a very opportune time. Topics covered include: Third Generation Wireless Communications; Mobile Data; Wireless LANs; Free Space Optical; Cellular Systems; Wireless PABX and Spread Spectrum Communications.

REGION 10
1991 IEEE TENCON; held August 29-30, 1991 in New Delhi, India; sponsored by the IEEE Region 10 in cooperation with the IEEE Power Engineering Society, the IEEE Computer Society, the IEEE Communications Society, the IEEE Computer Society, the IEEE Robotics and Automation Society and the Computer Society of India.
This year the conference topic, “EC3: Energy, Computer, Communication and Control Systems,” discussed control of power systems and generation, transmission and system. Subjects covered included: Adaptive and Multivariable Control; Control of Power Equipment; Control of Power Systems; Distribution Systems; H.V.D.C. Transmission; Industrial Control; Load Forecasting and State Estimation and Reliability.

ROCHESTER SECTION
Proceedings Fifth Annual IEEE International ASIC Conference and Exhibits; held Sept. 21-25, 1992 in Rochester, NY; sponsored by the IEEE Rochester Section.

SINGAPORE SECTION
Singapore International Conference on Intelligent Control and Instrumentation, SI CII '92; held Feb. 17-21, 1992 in Singapore; sponsored by the IEEE Singapore Section.
This international conference details the important of intelligent control and instrumentation in our lives by covering such topics as: Adaptive Control; Fault Diagnosis/ Detection; Large Scale Systems; Neural Networks; Robotics; Intelligent Instrumentation; and Robust Control; Real-Time Systems; CAD and Fuzzy Control.

SWITZERLAND CHAPTER
1992 International Zurich Seminar on Digital Communications; held March 19-19, 1992 in ETH Zurich, Switzerland; sponsored by the IEEE Switzerland Chapter.
The theme, “Intelligent Networks and their Applications” covered various aspects of communication networks such as design of distributed system architecture, specification of basic services, analysis of the performance needed to support these services, specification languages and methods, and standardization efforts. Highlights include: IN Features and Functionalities; Modelling and Evaluation Systems; Architectures for IN and Implementation of Intelligent Networks.
Procedures to Meet Environmental Objectives
Presented by Jim Jewett, Intel Corporation and Richard Brodinsky, IBM

This video tutorial covers the principles design engineers and equipment need to meet environmental objectives in electronics from the semiconductor industry. The viewer will understand the responsibilities of the designer and engineer regarding audits of electronics product and process design for environmental and chemical health and safety.

Recording Date: May 28, 1992
1 hour, 1 videotape and course notes
VC0013-3, $129.00

Optical Digital Computing: General Background
These two professionally produced programs on tape, each in their own way, address the questions of why and how to build an optical digital computer. Questions are examined from optics, electronics, and computer science perspectives. The first video shows some of the early telecommunications, optical systems, architectures, and algorithms which were developed. The second video gives a state-of-the-art overview of the technology and how it can be applied to photonics switching. The two videos span about three years in time and give a fascinating view of how this field is evolving.

Recording Date: December, 1991
55 minutes, 1 videotape
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This video explains the principles and functioning of adaptive learning algorithms such as the self-organizing map and learning vector quantization. See how to use them in applications including speech recognition. You will receive practical advice and implementation for use of these applications.

1 VHS tape, 2 hours
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VC0272-7, $129.00

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This video describes the basic neural element and how such an element can be replicated and incorporated into a neural network capable of performing complex information processing. See how neural networks can be trained and can self-organize to recognize patterns, to recognize speech, to predict weather from pressure patterns and to perform complex control functions. You will see a video demonstration of a neural control system that has learned to steer a trailer truck while backing into a loading platform—a neural controller that has solved a highly nonlinear control problem.

This new technology will play an important role in the control of power systems, industrial plants, robotic systems, and many other practical applications.

1 VHS tape, 2 hours
ISBN 0-7803-0367-1
VC0322-8, $129.00


29-66, $20.00, J9093-1

3. Learning, Recognition, and Prediction by Self-Organizing Neural Networks
Presented by Stephen Grossberg, Wang Professor of Cognitive and Neural Systems and Professor of Mathematics, Psychology, and Biomedical Engineering at Boston University.

See how to design algorithms for solving heretofore intractable problems in learning, pattern recognition, and nonstationary prediction. See how the computations used by the brain, particularly how people and animals learn to recognize and predict events, can be made beneficial in many practical applications.

1 VHS tape, 2 hours
ISBN 0-7803-0356-3
VC0326-2, $129.00

4. Adaptive vector Quantization and Neural Networks
Presented by Teuvo Kohonen, Professor of Computer and Information Science, Helsinki University of Technology

This video describes the adaptive vector quantization process and its applications. It is used in neural networks to compress data and to perform pattern recognition. It is also used to cluster data, and to extract patterns from data.

1 VHS tape, 2 hours
VC0325-5, $129.00


ii, vi, and pp. 101-740, $20.00, J0742-7


18-44, $18.00, J1212-0


109-402, $20.00, J1017-5

Library Survey Results continued from p. 2

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9. Do you use the IEEE Publications Bulletin as an ordering tool?

Yes | 62% | No | 38%

Do you expect this allocation to change significantly in the next two years?

No | 69% | Yes | 31%

8. How do you get information on IEEE products and services?

IEEE Publications Catalog | 24% | IEEE Transactions Bulletin | 22%

10. What other factors do you use to decide what to order? (check all that apply)

relevant topics | 78% |
reviews in technical literature | 40% |
special offers/promotions and pricing | 32% |
reputation of publisher | 24% |
other | 12% |
none of the above | 63%

11. What type of equipment and electronic delivery systems does your library have?

personal computers | 91% |
microform reader | 82% |
CD-ROM | 69% |
campus/company network | 67% |
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other laser disc technologies | 13% |
other | 1%
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