FROM THE EDITORS-IN-CHIEF

With this issue—which begins our third year of publication—IEEE Micro becomes a bimonthly publication. Of the six issues per year, four or five issues will follow our traditional format and one or two will be theme issues. The first IEEE Micro theme issue (with associate editor Jim Aylor serving as guest editor) will be on microcomputers and the handicapped and is scheduled to appear in June.

Several changes in the editorial staff also become effective with this issue. Peter R. Rony, the associate editor-in-chief during 1981 and 1982, becomes editor-in-chief for a two-year term, replacing Dick Jaeger, whose term expired in December. Dick now becomes an editorial consultant to IEEE Micro. Associate editor J. Thomas Cain moves up to the position of associate editor-in-chief.

The editorial board joins us in thanking Dick Jaeger for his yeoman efforts in launching the magazine. As one indication of what has been accomplished during Dick’s two-year tenure in office, we should point out that as of this issue, IEEE Micro has 25,374 subscribers, which represents approximately 33 percent of the membership of the IEEE Computer Society. This is up from the 9101 charter subscribers who received the premiere issue in February 1981—an increase of 179 percent.

Dr. L. Robert Morris, Dr. George S. Carson, Dr. Henricus Koeman, and Mr. John Burkitt have joined our editorial board, and Dr. John Hennessy has resigned to pursue other interests. We thank John for his contributions to the magazine and look forward to the contributions of our new associate editors. Brief biographical sketches of Drs. Morris, Carson, and Koeman, and of Mr. Burkitt, appear at the end of this message.

Of the many individuals whom we want to acknowledge for their contributions to the magazine, we first want to thank our reviewers, who determine the technical quality and readability of our articles. We have been able to contact most, but not all, of our editors for the names of the reviewers they worked with in 1982. These reviewers are acknowledged in the listing on page 6; we will complete these acknowledgments in our next issue.

We also want to thank our colleagues on the IEEE Computer Society’s Publications Board, Magazine Advisory Committee, and Governing Board for their support of IEEE Micro. We also especially thank Ron Hoelzeman, chairman of the Magazine Advisory Committee and treasurer of the Computer Society, and Joe Schallan, our managing editor, with whom we worked closely during the past year.

Once a year it is appropriate to summarize our perceptions of our target audience and to define the type of...
submission the editorial board seeks. IEEE Micro covers all aspects of the microprocessor and microcomputer field, including hardware, software, and applications. It is directed toward a broad audience whose interests are not limited to narrow specialties. The audience includes technical people involved in the design and use of microprocessors and microcomputers, from chips through systems. Articles on the architecture of new processor and peripheral chips, system software design, algorithms, system design (including details on design trade-offs), standards, and emerging developments are representative, but not all-inclusive, of the types of articles that are appropriate. Tutorial articles on microcomputer subjects and short application notes are also welcome. In-depth research reports that appeal only to a very narrow audience are normally not suitable for publication in IEEE Micro; they should be submitted to appropriate specialized publications.

We seek articles in all of the areas listed above. System design articles should discuss all aspects of an application, including the original objective, the selection of the preferred design approach, design trade-offs, hardware design, software design (including listings of key routines), and system performance. If such information does not fit in a single article, we are willing to publish a series of articles either in the same issue (see Klingman, IEEE Micro, February 1981) or in successive issues (see Jaeger, IEEE Micro, May/August/November 1982 and February 1983). Applications areas include, but are not limited to, communications, computer networks, multiprocessor design, robotics, process control, analog signal processing, and instrumentation. We are interested in software, including business software such as Multiplan, TK!Solver, and dBase II. All article proposals—or any inquiry about IEEE Micro—should be directed to Peter R. Rony at the Department of Chemical Engineering, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061; (703) 961-6370.

1982 IEEE Micro reviewers


Authors should strive to make their papers interesting and enjoyable to read, and should keep in mind that professionals with a broad range of backgrounds, not just electrical and computer engineers, subscribe to IEEE Micro. We encourage authors to use as many clear, explanatory figures as possible—they can make a substantial contribution to the readability and vitality of a technical article. Tutorial material explaining important concepts or introducing unfamiliar terminology should be included and should be separated from the main text. Such “articles-within-articles,” called “sidebars” in journalistic jargon, also contribute to understanding. See the article “Sequence Controllers with Standard Hardware and Custom Firmware” (IEEE Micro, May 1981, page 10) for excellent examples of sidebars on subjects such as information chunking, finite-state machines, and the BNF language. Above all, articles should be reader- and not writer-oriented.

We have observed that competition for high-quality articles on microcomputer applications is vigorous. IEEE Micro competes head on with publications such as Electronics, EDN, Electronic Design, Computer Design, Byte, Microprocessor and Microprogramming (The Euromicro Journal), and Microprocessors and Microsystems, and even with its sister publications, Computer and IEEE Computer Graphics and Applications. We have tried to keep abreast of this technical literature through our Access section, which has grown from one-half page in May 1981 to seven or eight pages per issue during 1982. (We are considering a reduction in the number of pages allocated to this department; if it is useful to you, please let us know.)

The stated goal of this magazine has always been to communicate timely technical information to the bench engineer or computer scientist. Our hope is that our articles will be of practical use to you either immediately or in the near future. If you enjoy reading “practice-oriented” articles, and would like to write one, consider IEEE Micro.

The Outstanding IEEE Micro Paper during our first year of publication, 1981, was voted to be “Sequence Controllers with Standard Hardware and Custom Firmware.” We congratulate Ritchie L. Tabachnick, Paul J. A. Zsombor-Murray, Louis J. Vroomen, and Tho Le-Ngoc for their achievement. A subcommittee of the IEEE Micro editorial board has started to evaluate candidates for the Outstanding IEEE Micro Paper Award for 1982.

Peter R. Rony
J. Thomas Cain

L. Robert Morris is a professor of systems and computer engineering at Carleton University in Ottawa, Canada. His research interests are in the area of digital signal processing software, and include the analysis of DSP algorithm/architecture/compiler interaction, the systematic production of time-efficient DSP software, and software-based speech-related DSP systems. He has written over 20 papers in this area, mainly for the transactions and conference proceedings

During a sabbatical in 1976-77 he was with Digital Equipment Corporation, working with the R & D Group in Maynard and with the Lab Data Product Group in Marlboro. He is president of DSPS Digital Signal Processing Software, Inc., an Ottawa firm recently formed to market fast DSP software, mainly for the PDP-11, VAX-11, and TMS 320 architectures.

Morris received a PhD in speech communications from Imperial College, University of London, England, and a BASc from the University of Toronto. He is a member of the IEEE and is a registered professional engineer in Ontario.

George S. Carson is a consultant specializing in the specification, design, and implementation of distributed microcomputer systems. He also teaches a course in distributed processing for the UCLA Engineering Extension. His major interests include computer graphics, formal specification of computer systems, and numerical analysis. Prior to establishing his consulting practice in 1981, Carson was with the Systems Software Section of the Government Electronic Systems Division of Harris Corporation, where he supervised a group involved in microprocessor applications. From 1976 to 1978 he was with the Computing Technology Section of the Los Angeles Division of Rockwell International, where he worked in operations research and computer-aided design.

Carson received the BS in mathematics from the University of Tennessee at Knoxville in 1970 and the PhD in mathematics from the University of California, Riverside, in 1975. He is a member of the IEEE, the IEEE Computer Society, the ACM, the American Mathematical Society, and Sigma Xi.

Henriecus Koeman is manager of the Advanced IC Design Aids Section in the Technology and Planning Group of the John Fluke Manufacturing Co., Inc., Everett, Washington, where he is involved in the development and application of high-level software tools for custom IC design. Prior to this assignment he was engineering manager of the Precision Instruments Business Unit and was responsible for the development of several microprocessor-controlled instruments. Before he joined Fluke in 1973, he was employed by Philips Research Laboratories, The Netherlands, where he conducted research in electronic nuclear instrumentation.

Koeman currently serves on the Administrative Committee of the IEEE Instrumentation and Measurement Society. He holds an MSEE from the Technical University of Delft and a PhD from the University of Nijmegen, The Netherlands.

John Burkitt is editor of computer publications in the Computing Services Unit of the University of New South Wales, Australia. After thirty years of industrial research, mainly in the paper industry, he spent two years with the Fischer & Porter Company designing the digital process control system for the Nabalco alumina refinery at Gove in the Northern Territory, Australia.

Burkitt received the BSc from Sydney University in 1944, with honors in physical chemistry, and the diploma in instrument technology from the Royal Melbourne Technical College in 1957. An associate member of the IEEE, he is a senior member of the Institution of Radio and Electronics Engineers of Australia, and is a member of the Australian Computer Society.

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