The microprocessor will become part of every device, machine, and system that can benefit from built-in intelligence. To the designers and users of that intelligence, this journal is dedicated.

IEEE Micro

Senior Editors’ Introduction

Richard C. Jaeger and Peter R. Rony

Welcome to the first issue of IEEE Micro. In early 1980, Dr. Robert Stewart, a member of the Computer Society’s Governing Board, felt strongly that the society could better serve its members through the publication of a new magazine dealing with the rapidly growing microprocessor and microcomputer field. He perceived the need for a magazine which would appeal to the many people involved in the design and application of microprocessor hardware and software. It was through his initial efforts and foresight that IEEE Micro was born. Dr. Tseyun Feng, past president of the Computer Society, and Dr. Richard Merwin, former vice-president for publications and current president of the society, worked vigorously in getting the magazine approved and off the ground. The first issue is the result of the hard work of managing editor Joe Schallan, publisher True Seaborn, and the editorial board.

The editorial board hopes that you will find this magazine both useful and informative. We expect to publish information of practical as well as theoretical interest and solicit your comments on the content and format of the magazine.

Included in this premiere issue are articles that reflect our approach—the features by V. P. Nelson and H. T. Nagle, and by P. D. Stigall, R. E. Ziemer, and V. P. Pham, provide program listings and/or short summaries of subroutines, for example. We believe that it is important to promote the dissemination of useful software, especially subroutines, that can save the designer time. Do you agree?

Also included in this first issue is an experiment in book reviewing. Glen Langdon has written an article-length review, complete with reprinted figures, of a text that may be of interest to many readers. Is this type of format of greater value than the typical brief review found in many publications?

We will publish drafts of proposed standards, as they become available, on subjects that relate to microprocessors. In this issue, for example, we include a draft of a proposed standard for microcomputer system backplanes. In addition, we will have a regular section—called MicroStandards—on the activities of the Microprocessor Standards Committee of the Computer Society.

The quality of this publication will reflect the quality of the papers you submit. We hope that scientists and
engineers from government, industry, and academia will find \textit{IEEE Micro} interesting and valuable; we encourage you to submit papers and thus broaden the scope of the magazine.

Our audience will include professionals involved in the design and use of microprocessors and microcomputers, from chips through systems. Hardware configuration, interprocessor communication, analog signal interfacing, software design, numerical software, and process control are just a few examples of topics relevant to us. Authors should strive for readability in their papers and should keep in mind that people with a broad range of backgrounds will be reading the articles, not just electrical and computer engineers. 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. Material explaining concepts or introducing terminology should be included, perhaps separated from the main text, whenever such material will enhance the reader’s understanding.

Tutorial articles on a wide range of subjects will also play a critical role in the success of this magazine. Subjects such as digital filtering, fast fourier transforms, and numerical software are appropriate for tutorial articles. However, papers of the “this-is-what-we-have-done-and-isn’t-it-wonderful” variety, which simply describe a microprocessor application but are devoid of technical detail, are not appropriate.

To be considered for publication, four copies of the complete manuscript should be submitted directly to the

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The papers will be reviewed by three referees, and the review process is presently averaging 12 to 16 weeks. Author guides may be requested from the senior editor at the address above, or from the associate senior editor:

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For those interested in placing short contributions before our audience, \textit{IEEE Micro} will carry a regular department, Notes on Application and Design. This is a particularly good place to describe a research project, address a design problem, or provide a technical discussion of a successful application.

Keeping informed about new products is important to both users and designers. Our new products section will feature short articles on selected product introductions; a special product summary will provide quick access to product information. We welcome product announcements from all companies active in microcomputer hardware and software development.

All contributions to Notes on Application and Design and to New Products should be sent directly to \textit{IEEE Micro}'s production office:

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We invite one other type of contribution—involve-
ment in our editorial process. We need volunteers not only to assist in article solicitation and review, but also to review contributions to our departments. We intend to provide our readers not just with pertinent articles but with opportunities to participate as well.

Richard C. Jaeger has been an associate professor of electrical engineering at Auburn University, Alabama, since 1979. From 1969 to 1974, he was with the IBM General Systems Division, Boca Raton, Florida, working on technology for data acquisition systems and small computer architecture. In 1974, he became a research staff member at the IBM Thomas J. Watson Research Center, Yorktown Heights, New York, where his interests included analog integrated circuits, PL, and low-temperature MOS device behavior. In 1976 he returned to IBM, Boca Raton, where he continued work on the behavior of MOS devices at low temperatures and on architectural alternatives for small computer systems.

Jaeger is the author of more than 30 technical papers and articles and serves on the program committee of the International Solid State Circuits Conference. A senior member of the IEEE, Jaeger holds the BS, ME, and PhD degrees in electrical engineering from the University of Florida, Gainesville.

Peter R. Rony is professor of chemical engineering at Virginia Polytechnic Institute and State University, Blacksburg, Virginia. His research interests include microcomputer applications, catalysis, chemical separations, and chemical microengineering. The author of eight textbooks on subjects such as digital electronics and microcomputer interfacing and programming, he has also conducted over 25 short courses in these areas both in the US and abroad. He is a regular columnist with \textit{Computer Design} and various foreign electronics magazines, to which he has contributed over 40 articles on interfacing fundamentals.

Rony received a PhD in chemical engineering from the University of California, Berkeley, and a BS in chemical engineering from the California Institute of Technology, Pasadena. A member of IEEE, ASEE, AIChE, and ACS, he received a Dreyfus Teacher-Scholar Award in 1973.