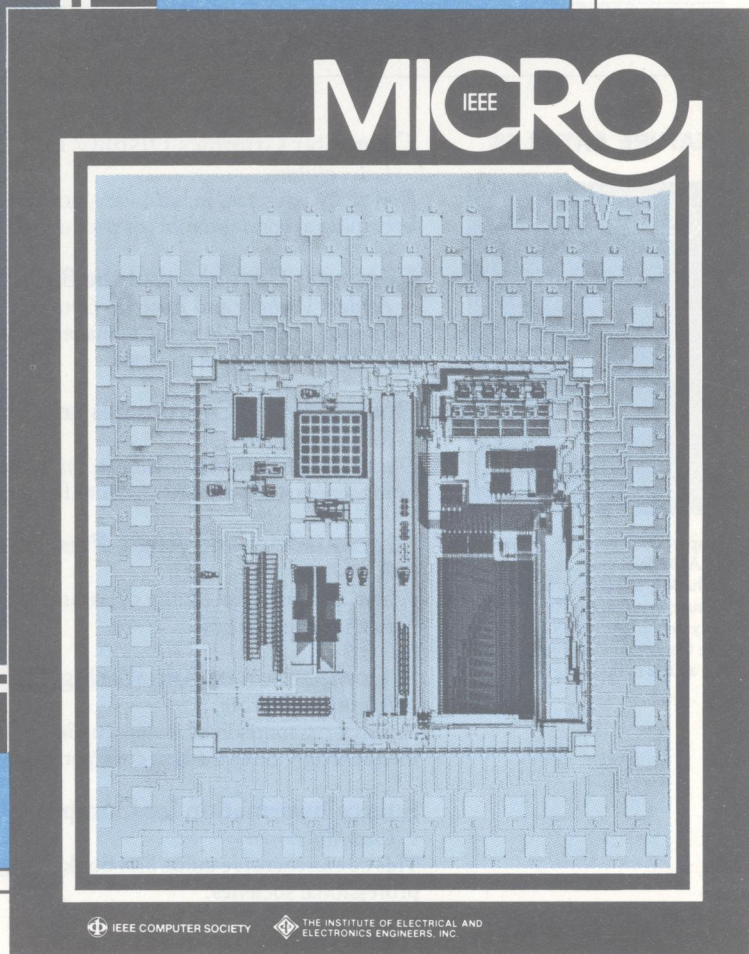
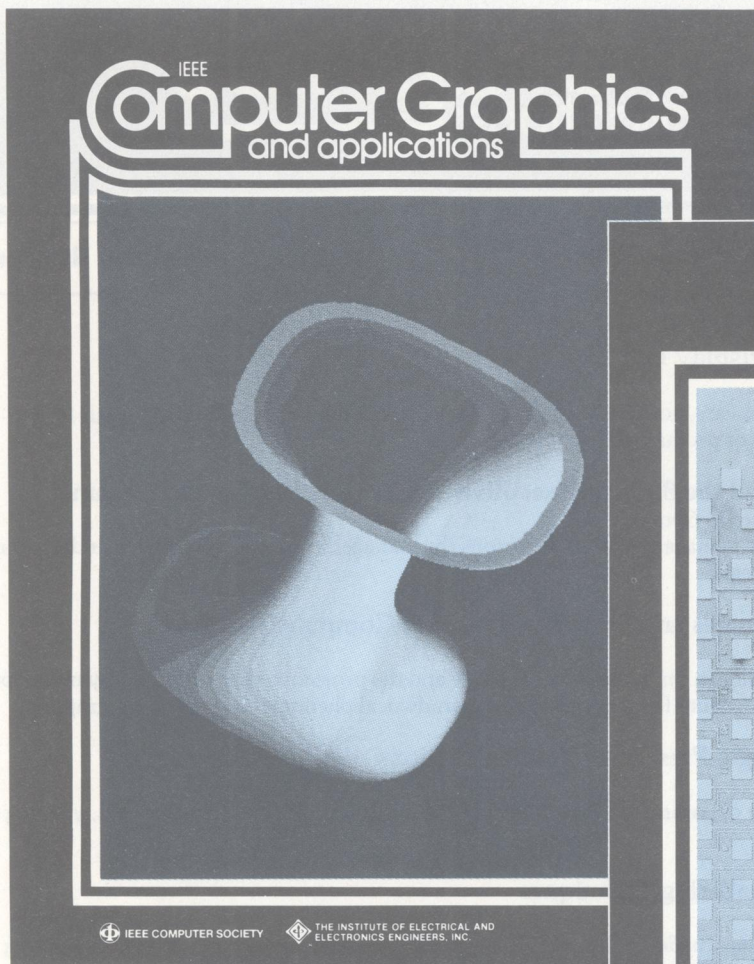


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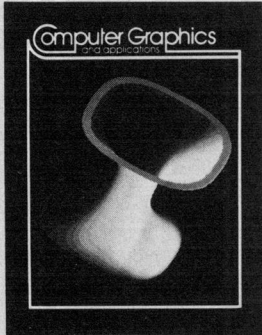


# IEEE Computer Graphics and applications

January 1981

Volume 1 Number 1

## FEATURE ARTICLES



"Superquadric bottle" generated by Alan Barr using an ADI Light 50 graphics terminal and a Dunn camera at the Rensselaer Polytechnic Institute's Interactive Computer Graphics Center. See article in this issue.

### Computer Graphics Display Hardware

*L. C. Hobbs*

Driven by advances in hardware, computer graphics — long regarded as a high-priced glamour field — is becoming a common tool for productive applications.

### Computer Graphics and the Business Executive — The New Management Team

*Anders Vinberg and James E. George*

Computer graphics is a true management tool. It permits the manager to spot trends quickly and simulate a variety of corrective strategies.

### Homogeneous Coordinates and Projective Planes in Computer Graphics

*R. F. Riesenfeld*

Discrepancies between Euclidean three-dimensional space and the projective space modeled by means of homogeneous coordinates account for some seemingly paradoxical phenomena in computer graphics.

### Superquadrics and Angle-Preserving Transformations

*Alan Barr*

A new and powerful family of parametric shapes extends the basic quadric surfaces and solids, yielding a variety of useful forms.

### A Comparison of Antialiasing Techniques

*Franklin C. Crow*

A visual comparison of images made on film recorders and CRTs suggests which of various antialiasing methods may offer the best cost/performance tradeoff.

### Source Information for Computer Graphics

*Carl Machover*

This comprehensive guide lists books, magazines, articles, courses, product information sources, and professional societies.

## DEPARTMENTS

Letters to the Editor  
New Ideas in Computer Graphics  
Application Briefs  
New Products  
Displays on Display

Book Reviews  
Professional Calendar  
Advertiser/Product Index  
Selections from the Computer Society Press

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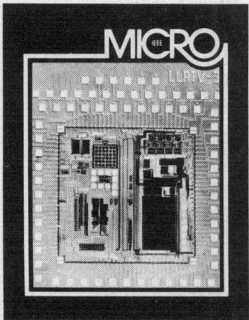
# MICRO

IEEE

February 1981

Volume 1 Number 1

## FEATURE ARTICLES



### A History of Microprocessors

Robert N. Noyce and M. E. Hoff

### Digital Filters—Part 1: 16-Bit Microcomputer Implementations

H. T. Nagle and V. P. Nelson

### Digital Filters — Part 2: Performance Comparisons of 16-Bit Microcomputers

V. P. Nelson and H. T. Nagle

### Performance Studies of a Frequency-Shift-Keyed Receiver Implemented Using a Two-Processor Micro

P. D. Stigall, R. E. Ziemer, and V. P. Pham

### Single-Chip Micros — Part 1: Hierarchical Coding of Microcomputers for High Level Architecture

E. E. Klingman

### Single-Chip Micros — Part 2: A Design Philosophy for Microcomputers

E. E. Klingman

### Draft Standard for Microcomputer System Backplanes

Backplane Bus Subcommittee of the IEEE Computer Society's Microprocessor Standards Committee

### Microprocessor Bus Structures in Standards

P. L. Borrill

### Putting Design into an Introductory Logic Design Course: A Review of *An Engineering Approach to Digital Design* by W. I. Fletcher

G. G. Langdon, Jr.

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Notes on Application and Design

New Products

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