Past Chairman's Message

Steve M. Rohde
CIE Chairman, 1988-89

During 1988-1989, the CIE Division continued to grow. Currently 2261 members have indicated CIE as their division of primary technical interest whereas 9918 indicated it as their division of secondary interest. The total, 12,179, represents a 3% increase over last year.

The growth of our division has paralleled the engineering industry's use of computers. The style of the management of the Division also matches the personality of the computer users. There is a willingness to use innovative approaches (creativity) when addressing old or new projects. For example, one of the activities of the Division is to help run the CIMESE (Computers in Mechanical Engineering Software Exchange) which was started at the University of Wisconsin several years ago. This year, the Executive Committee of CIE was "linked" to that bulletin board and is using it for conference planning and other activities. This is working out well and may serve as a prototype for other ASME divisions.

The technical committee structure continues to evolve—as does the computer industry. This year new committees were added in parallel and concurrent computing as well as in applications areas. Members are encouraged to contact the

Chairman's Message

GOPAL D. GUPTA, Ph.D.
Division Chairman, 1989-90

It is my great pleasure and honor to greet all members of the Computers in Engineering Division. It is especially exciting as the Division enters its tenth year of existence. We have had eight international conferences and exhibits with the most recent conference held in San Francisco, an overwhelming success.

Presently the Division has 2,145 primary interest members and 9,696 secondary interest members, totalling 11,841 members—an increase of approximately 15% over the last year. The ever-increasing interest of ASME members in our Division indicates the growing automation needs and dependence on computers among mechanical engineers. Now we must rise to the challenge of providing meaningful and effective service to the membership.

The combined attendance at last year's CIE Conference in San Francisco was over 2,800, which was beyond our expectations. Most of the technical sessions were very well attended. The exhibitors were very happy with the good traffic flow through their areas.

Our challenge is to maintain, over the coming years, the level of success achieved at the 1988 San Francisco conference. I firmly believe that this can be accomplished by your continued active participation in the Division.

The Division faced a minor setback last year. Due to a drop in the subscription level for the CIME magazine from its peak of over 10,000 to only 2,000, it has been discontinued. The last regular issue of CIME was in November 1988. Since January 1989, a CIME supplement has been published in the ME magazine. Many of our members strongly feel that the CIE Division should have an archival quality journal (transaction). This option is currently being explored by the Archival Journal Task Force under the leadership of Dr. Vijay Tipnis.

Finally, I would like to say that our effectiveness will be a function of the membership's commitment. I strongly urge each one of you to come forward with new ideas and enthusiasm, and become involved. If you get an idea and don't know how to implement it, call anyone in the Division's executive or conference committees, or call me. I can promise you that we will get you started and assist you in whatever way possible to turn your ideas into realities.

Working side by side with the members is an excellent and very capable and cooperative ASME staff upon whom I encourage you to call. We have had nine rewarding years, and I am sure that with your active participation, we can look forward to many exciting years of growth and new initiatives.

GOPAL D. GUPTA, Ph.D.
Division Chairman, 1989-90
Division Chairman/Executive Committee members with ideas for new technical committees.

The past chairman's message isn't complete without mentioning some work that still has to be done. One area is in joint efforts within and outside of ASME. Our intentions have been to expand dialogue and encourage such participation. An example of this is the 1990 CIE Conference which will be co-sponsored with the JSME. Within ASME, CIE continues to participate in more "global" conferences, e.g., WAM; and our dialog on joint and umbrella conferences with other divisions continues.

Another issue which continues to be studied, is the formation of a CIE Transaction. The pros and cons of such a journal are currently being discussed.

Finally, as outgoing chairman, I would like to thank both the ASME staff and the volunteers for their support. Without it this division would not exist.

STEVE M. ROHDE

New Committees

It gives us a great pleasure to announce that two new technical committees have been formed in the division.

Dr. Ali Ozbeki has formed the Analysis Methods in the Auto Industry Committee, and Dr. Thomas F. Ewing has formed a Committee on Parallel Computing. Dr. Ozbeki’s committee will focus on numerical analysis techniques currently employed by the auto industry. These techniques include, but are not limited to, crashworthiness, optimization, system modeling, and component mode synthesis. Dr. Ozbeki can be reached at the GM Technical Center in Warren, MI, or on (313) 986-6122.

Dr. Ewing’s committee on Parallel Computing is being formed in response to the newly emerging developments in high performance computing based upon parallel processors, neutral systems, and related concepts. Commercial products ranging from parallel PC’s to massively parallel computers with tens of thousands of processors are entering the market. These new technologies are expected to have a profound impact on the future of computing. The mission of the committee is to stimulate interest in ASME in parallel computing and to encourage pioneering experimentation with application of this new technology. Dr. Ewing can be reached at the Argonne National Laboratory in Argonne, IL, or on (312) 972-5455. Look for meetings for both of these new technical committees, and all of the rest of the technical committees within the division at the upcoming CIE Conference. All of the committees can always use fresh ideas and new members.

CIME-ISE Bulletin Board

For those of you who have yet to use the CIME-ISE bulletin board, the Computers in Engineering Division is proud to announce that we have set up a division portion of that system that has E-mail capability.

Initially set up as merely a software exchange system, the CIME-ISE system has grown to several computers and a very large mass storage capacity. If you are interested in dialing up, you may call Fred Goldfarb at ASME (212) 705-7470, or Greg Jackson (the system administrator) at (608) 233-0453. The computer system modem number is (608) 233-3378. Dial in and see what the system has to offer.

Conference Software & CIME-ISE

CIME-ISE is offering software library service for the 1989 CIE Conference. Authors with software or data files they wish to share with CIE attendants may do so by contributing their files to the CIMEISE library. Once added to the library, a computer file becomes instantly available, worldwide to anyone with a personal computer and a modem. The CIME-ISE library currently contains more than 2000 files. The library focuses on programs and source code of a scientific or technical nature for the IBM and Macintosh computers. CIME-ISE supports public domain software, shareware, and demonstration versions of commercial programs. CIME-ISE is a virus free system.

CIME-ISE is the electronic bulletin board of ASME and is on-line 24 hours, year round. It may be accessed using a terminal or personal computer at 300, 1200, 2400, or 9600 baud. Programs in the CIME-ISE library are not executed online but rather are copied to the caller’s computer along with program documentation. The system may be reached at (608) 233-3378 using 8 bits, no parity, one stop bit (8/N/1). It is open to anyone interested in computers and engineering. CIME-ISE is a free service of the Publishing Division of ASME. For more information be sure to attend the BBS workshop on Thursday.

Call for Papers

1990 ASME International Computers in Engineering Conference and Exposition

Sheraton Boston and
Hynes Convention Center
Boston, Massachusetts
August 5-9, 1990

MECHATRONIC DESIGN

Mechatronics is a term coined by the Japanese to describe the union of mechanical, computer, and electronic engineering in the design, manufacture, and function of a product. Mechatronics incorporates and emphasizes a multi-disciplinary approach to the definition, design, manufacturing, and sales of a product, as well as the total integration and these various disciplines into the product itself.

CIE NEWSLETTER

E. M. (NED) PATTON: Editor
FRED M. GOLDFARB: ASME Staff
Traditionally, mechatronics has been used in the context of machines, robots, and other smart mechanisms, i.e., the addition of intelligence to traditionally mechanical systems. As such, mechatronics has been associated primarily with such applications as machine vision, manufacturing, and the remote manipulation of hazardous materials. More recently, however, mechatronics has been used in the context of consumer/potential consumer products such as automobiles, autonomous vehicles, cameras, etc. The integration of the electronic and mechanical elements in a modern camera is a good example of mechatronics design.

Since the ASME Computers in Engineering Conference has traditionally covered virtually all of the elements associated with mechatronics, i.e., computers, robotics, CAD, design, artificial intelligence, and mechanical systems, the 1990 technical program will focus on mechatronics as a theme for integrating all of these. Papers that deal with mechatronic design issues and associated disciplines, and papers that present applications of various levels of integration in product design are solicited for this conference. These include but are not limited to papers on robotics, dynamics and controls, CAE tools and applications, artificial intelligence, machine vision, and advanced micro processor applications.

Engineering managers and executives, users, researchers, and vendors should all benefit from this technically renowned conference. Technical paper sessions will present new results in basic and applied research; plenary sessions provide an arena for industrial and government leaders to share their visions and experiences; invited panel sessions provide timely insight into current and future directions for hardware and software, along with trends in research and development. Poster sessions will be included this year to accommodate those who do not desire to contribute full-length papers but still want a forum in which to share their works in progress. If you wish to participate in the poster sessions, submit an extended abstract to the Conference Program Chairman, Gary Kinzel, no later than February 15, 1990. The extended abstracts for the poster presentations will be reviewed and if accepted will be published in a separate section of the bound Conference Proceedings.

Contributions in the form of full-length papers should be submitted directly to the appropriate program chairperson. Each paper will be reviewed, and accepted papers will be published in a bound Conference Proceedings by the ASME. In addition, an award for the best paper(s) will be given at the conference, and papers of special note will be further reviewed after the conference for the Computers in Mechanical Engineering (CIME) supplement.
CONFERENCE MAGAZINE

ENGINEERING CONFERENCE

Anaheim, CA

Wednesday, August 2

Irwin Berman Memorial Plenary Panel
8:00-9:30am
THE NEXT FRONTIER: THE MARKETING/ENGINEERING INTERFACE
Introductory remarks:
Steve Rohde
Moderator:
Mark Steiner, Corporate Engineering and Manufacturing, General Electric Company
Panelists:
Don Clausing, Bernard M. Gordon Adjunct Professor of Engineering, Innovation and Practice, MIT
Louis Cohen, Manager of Quality, Digital Equipment Corporation
Bob King, Executive Director, Goal/QPC
9:30-10:00am
Coffee and Exposition Visit

Technical Sessions
10:00-11:45am
• PANEL—Design Data
• Design Optimization
• PANEL—Japanese Design Practices
• Finite Element Applications
• High Performance Controls
• Computational Fluid Dynamics in Design
11:45am-1:45pm
Express Lunch and Exposition Visit

Technical Sessions
1:45-3:30pm
• Object-Oriented DBMS
• Computer Aided Design and Manufacturing
• Finite Element Unique Applications
• Speciality Controls
• Simulation of Energy Systems and Process Control
• Exhibitor's Forum Integration for the 1990's—A Corporate Statement
• PANEL—Computers in Design of Fluid Power Systems (Co-sponsored by new Fluid Power Division)
3:30-4:00pm
Coffee and Exposition Visit

Thursday, August 3

Workshops
8:30-11:30am
1. Design for Manufacture and Assembly
Henry Stoll
Manager, Industrial Technology Institute
A hands-on overview of the field with case histories, war stories and guidelines on how to get started.
2. Parallel Computing
Richard L. Peskin
Director, CAIP Parallel Processing Lab, Rutgers University
Experts in parallel processing will be discussing the latest developments in its engineering use.

3. CIME-ISE and CIE BBS
Gregory Jackson
Administrator, CIME-ISE System
Come and learn how to get started using the CIME-ISE System. Also, learn how to stay abreast of all that is happening in the Computers in Engineering Division of ASME—get online with the CIE Electronic Bulletin Board!

4. CIE Archival Journal
Vijay Tipnis
Professor, Georgia Institute of Technology Participate and contribute to the CIE Archival Journal which is spearheaded by one of the frontrunners of the ASME Computers in Engineering Division. Dr. Tipnis is looking for input from all attendees: from subject material to associate editors.
11:30am-12:30pm
Lunch—on your own.
1:00-5:00pm
TOUR OF ODETICS, INC.
A special tour has been arranged to visit Odetics' Robotic facilities which are located close to the hotel complex. Attendance is limited to 100 people. Register on-site.

Personal Computer Challenge Contest!
The CIE Division is providing Conference and/or Exposition attendees the opportunity to demonstrate creative uses of personal computers in the home environment. Submittals are limited to three 8 1/2 by 11 pages one of which may be graphic and must be made at the CIME-ISE booth in the exposition hall (no mail-ins!). Winners will be announced during Wednesday's Express Luncheon and at Thursday's CIME-ISE and CIE BBS Workshop and in other Division publications. Contest rules will be available with the final conference program.

Deadline Dates for Technical Papers
Submission of four copies of Paper
November 17, 1989
Notification of Acceptance to Authors
February 16, 1990
Submission of author-prepared mats to ASME headquarters
April 2, 1990

Conference Chairman
Dr. Steven Rohde
General Motors Systems
Engineering Center
1151 Crooks Road
Troy, MI 48084
(313) 280-6610

Program Chairman
Dr. Gary L. Kinzel
Mechanical Engineering Department
The Ohio State University
206 West 18th Avenue
Columbus, OH 43210
(614) 292-6884

Exhibits Chairman
Mr. Edward M. Patton
US Army Ballistic Research Laboratory
Aberdeen Proving Grounds, MD 21005
(301) 278-6805

Technical areas and respective program chairmen are:
Dr. Gary Gabrielse
Rensselaer Polytechnic Institute
Mechanical Engineering Dept., Troy, NY 12180-3590
(518) 276-6003
Interactive Computer Graphics
Computer Aided Design
Computer-Aided Engineering
Computer Simulation
Computer-Aided Manufacturing
Computer-Aided Testing
Dr. Jami Shah
Department of Mechanical and Aeronautical Engineering
Arizona State University
Tempe, AZ 85287
(602) 965-6145
Expert Systems
Knowledge-Based Systems
Design Theory
Artificial Intelligence

(continued on page 6)
Computers in Engineering Division
Founded in 1979

Executive Committee
1989-1990
Chairman
Dr. Gopal D. Gupta
Foster Wheeler Enviresponse Inc.
8 Peach Tree Hill Rd.
Livingston, NJ 07039
201-535-2462
Vice Chairman
Dr. Donald R. Riley
Mechanical Engineering Dept.
University of Minnesota
111 Church St., S.E.
Minneapolis, MN 55455
612-625-0591/2596
Fax: 612-625-8888
Secretary
Edward M. Patton
U.S. Ballistics Research Lab.
Interior Ballistics Division
Aberdeen Proving Grounds
Aberdeen, MD 21005
301-278-6858
Fax: 301-278-3350
Member
Dr. Gary Kinzel
Mechanical Engineering Dept.
Ohio State University
206 West 18th Street
Columbus, OH 43210
614-292-8884
Member
Dr. Gary Gabriel
Dept. of Mechanical Engineering
Rensselaer Polytechnic Institute
Troy, NY 12180-3590
518-276-2601
Fax: 518-276-6003
Member
Dr. Terry Shoup
Dean, College of Engineering
Santa Clara University
Santa Clara, CA 95053
408-554-4600
Member-Ex Officio
Dr. Steve Rohde
General Motors Research Labs.
1151 Crooks Road
Troy, MI 48084
313-280-6670
Fax: 313-280-6607
Member-Ex Officio
Dr. James Cokinis
General Electric Co.
Bldg. 7, Room 7244
P.O. Box 8555
Philadelphia, PA 19101
215-354-1953
Fax: 215-354-2857

Administrative Committees
1989 WAM Program
Representative
Dr. David Dietrich
Swanson Analysis System, Inc.
P.O. Box 65
Houston, PA 15342
412-746-3304
Fax: 412-746-9949

Papers Review
Dr. Donald R. Riley
University of Minnesota
Mechanical Engineering Dept.
111 Church St., S.E.
Minneapolis, MN 55455
612-625-0591/2596
Fax: 612-625-8888

Long Range Planning
Dr. Evad H. Heer
Heer Associates, Inc.
5329 Crown Avenue
La Canada, CA 91011
818-793-1154

Publicity
Dr. Vijay A. Tipnis
Georgia Institute of Technology
School of Mechanical Engineering
Atlanta, GA 30332-0405
404-894-6839/3200
Fax: 404-894-3120

Constitution and Bylaws
Dr. L. E. Huibert
Transportation & Structures Dept.
Batelle Memorial Institute
505 King Avenue
Columbus, OH 43201
614-424-5339

Meeting and Paper Coordinator
Dr. David Dietrich
Swanson Analysis Systems, Inc.
P.O. Box 65
Houston, PA 15342
412-746-3304
Fax: 412-746-9949

Publications
Dr. Donald R. Riley
University of Minnesota
Mechanical Engineering Dept.
111 Church St., S.E.
Minneapolis, MN 55455
612-625-0591/2596
Fax: 612-625-8888

Membership Development
Dr. Gopal D. Gupta
Foster Wheeler Enviresponse Inc.
8 Peach Tree Hill Rd.
Livingston, NJ 07039
201-525-2462
Fax: 201-535-2423

International Liaison
Dr. Ali A. Seireg
University of Florida
Mechanical Engineering Dept.
Gainesville, FL 32611
904-392-9349

Government & Industry Relations
Dr. James Callahan
450 Foxbrook Drive
Creeve Coeur, MO 63141
314-872-3206

Professional Development
Dr. Donald R. Riley
University of Minnesota
Mechanical Engineering Dept.
111 Church St., S.E.
Minneapolis, MN 55455
612-625-0591/2596
Fax: 612-625-8888

Honors and Awards
Dr. Ramjee Raghavan
Foster Wheeler Enviresponse Inc.
CSA Depo.
Bldg. 200, Bay F, Woodbridge Ave.
Edison, NJ 08837
201-321-6611/548-9660
Fax: 201-548-8476

Technical Committees
Artificial Intelligence & Expert Systems
Dr. Jami Shan
Mechanical & Aerospace Engineering
Arizona State University
Tempe, AZ 85287
602-965-6145

Computer Aided Engineering
Dr. Gary Gabriel
Rensselaer Polytechnic Institute
Department of Mechanical Engineering
Troy, NY 12180-3590
518-276-2601
Fax: 518-276-6003

Computer Integrated Manufacturing
Dr. Nand K. Jha
Manhattan College
Dept. of Mechanical Engineering
Manhattan College Parkway
Bronx, NY 10471
212-920-0179

Computer Aided Testing
Bill Dorrfield
AVCO Lycoming Textron
550 Main Street
Stratford, CT 06607
203-385-2597/2800

Computer Networking
Dr. L. E. Huibert
Transportation & Structures Dept.
Batelle Memorial Institute
505 King Avenue
Columbus, OH 43201
614-424-5339

Computer Simulation
Dr. Steve Rohde
General Motors Research Lab.
1151 Crooks Road
Troy, MI 48084
313-280-6610
Fax: 313-280-6607

Analysis Methods in Auto Industry
Dr. M. Ali Ozbiski
General Motors Technical Center Engineering Bldg., W-South
30200 Mound Road
Warren, MI 48090-9010
313-986-6122/478-1718

Computers in Education
Dr. Terry Shoup
Dean College of Engineering
Santa Clara University
Santa Clara, CA 95053
408-554-4600

Computer Hardware Systems
Mark Darlow
Rensselaer Polytechnic Institute
Dept. of Mechanical Engineering
Troy, NY 12180-3590
518-276-6995

Parallel Computing
Dr. Thomas Ewing
Argonne National Laboratory
adv. Sys. Anal. & Sim. Group
9700 South Cass Ave., ENG/B207
Argonne, IL 60439-4841
312-927-5455
Fax: 312-927-4007

Finite Elements & Analysis Software
Vigen Chazarian
MacNeal-Schwendler
810 Colorado Blvd.
Los Angeles, CA 90041
213-259-3862
Fax: 213-259-3883

Computational Fluid & Thermal Engineering
Dr. Ahmed A. Bousnina
Mechanical Engineering Dept.
Clarkson University
Potsdam, NY 13676
315-268-6754

Statistical Modeling & Reliability Technique
Joseph E. Matar
Marquette University
Mechanical Engineering Dept.
1515 W. Wisconsin Ave.
Milwaukee, WI 53233
414-224-7275

Computers and the Arts
Dr. Margo K. Apostolos
University of Southern California
Physical Education Dept.
PDE 107
Los Angeles, CA 90089-0562
213-743-7360
1989 Conference

(continued from page 4)

Dr. William Rasdorf
North Carolina State University
Civil Engineering Department
P.O. Box 7908
Raleigh, NC 27695
(919) 737-2331

Engineering Database
Management
Information Management Systems
CAG/CAM Databases
Graphical Exchange Standards

Mr. David W. Bennett
Battelle Pacific Northwest Labs
P.O. Box 909
Richland, WA 99352
(509) 375-2139

Mechatronics
Microprocessors
Robotics
Real-time Control
Adaptive Control
Process Control
High-Performance Computing

Dr. Terry Shoup
Dean, College of Engineering
Santa Clara University
Santa Clara, CA 95053
(408) 854-4600

Computers in Education
Robotics in Education
Teaching CAD in the University
Computers in the Classroom
Computer-Aided Learning Systems
University-Industry Collaboration

Dr. Vigen Ghazarian
MacNeal-Schwendler
815 Colorado Blvd.
Los Angeles, CA 90041
(213) 259-3838

Finite Element Techniques
Software Standards
Software Engineering
Computational Geometry
Computational Mechanics

Dr. Ahmed A. Busnaina
Mechanical Engineering Dept.
Clarkson University
Potsdam, NY 13676
(315) 268-6574

Computers in Energy Systems
Computational Fluid Mechanics
Computational Heat Transfer
Combustion Modelling and Diagnostics

JOIN TODAY!

Fill out this form and send it to:
ASME—Computers in Engineering Division
c/o Fred Goldfarb
ASME
345 E. 47 Street
Mail Stop 5A
New York, N.Y. 10017

COMPUTERS IN ENGINEERING DIVISION

Volunteer Information

If we've caught your interest, how about getting involved? Let us know your interests by filling out this form.

Name
Address (home)
Telephone
Areas of Professional Interest:

Preferred Mailing Address: Home ☐ Work ☐

☐ I wish to become a member of the ASME CIE Divison (Technical Division Code 31)
☐ ASME Member ☐ I wish to join ASME. Please send membership application.
I would like to be active in promoting the goals of this division. Please contact me: ☐

I can travel to meetings: ☐ Anywhere in the USA ☐ Only in the vicinity of
I have clerical support available to ASME at: ☐ No Cost ☐ Cost ☐ Not Available
I have these other resources available to ASME: