
NEWSLETTER



COMPUTING AND SYSTEMS TECHNOLOGY DIVISION

American Institute of Chemical Engineers



Volume 5 No 2

October 1982

FUTURE CAST PUBLICATIONS?

Edward Gordon

Chairman: CAST Publications Board

At present, the only "official" CAST Publication is this Newsletter. AIChE issues Symposium Series volumes based on papers presented at CAST sponsored sessions. AIChE makes the papers available on microfiche or via hard copies at the time of the National Meeting. Some CAST papers get published in a journal of record such as Computers and Chemical Engineering (Pergamon Press) or the AIChE Journal or in a news type magazine such as Chemical Engineering Progress.

An additional CAST publication should be out in January of 1983. A "Directory of CAST Membership" was authorized at the last meeting of the Executive Committee. Advertising space is available and, in this Newsletter, you are invited to furnish additional information about yourself for this Directory.

A CAST publication likely to appear in the not too distant future is a quarterly magazine which is tentatively called Ch.E. Computing Progress. A proposal to initiate such a magazine for CAST will be considered your Executive Committee at their next meeting held in conjunction with the Los Angeles Annual Meeting of AIChE. An announcement of time and location are found in this Newsletter.

The proposal after approval by the CAST Executive Committee will require ratification by the CAST membership as a whole because the publication costs are to be covered partially by an increase of ten dollars in the CAST dues as the other divisions have done. Subscriptions to non-members of CAST would be available at an annual fee of twenty dollars if we follow the example of the other divisions.

Three divisions of the AIChE have started to publish quarterly magazines for their membership this year. Each of these divisions is larger and older than CAST. However, our membership passed the one thousand mark this year and we will soon observe the fifth birthday of CAST.

Larry Resen (AIChE Publications Director) would appoint an editor in collaboration with our Executive Committee. Many feel we can start work in 1983, for publication of a quarterly and replacement of this Newsletter by 1984.

However, these are a number of complex issues involved in setting the publications policy for CAST. Some of the key issues are outlined in the remainder of this article.

Publication of New Ideas

At many universities, credit for ideas which are considered good and new is essential for tenure and promotion. Thus, an important part of the publication process to the academics is a clear description of the genealogy of the new idea. In contrast, in industry there is much more emphasis on what has been and can be accomplished with the ideas available. This dichotomy leads to conflicting publication requirements.

Of course, much communication usually is required in going from the conception of a new idea to a proven advance in the "state-of-the-art" worthy of publication in a journal of record such as Computing and Chemical Engineering or the AIChE Journal. CAST sponsored sessions expedite these communications. One relevant question is whether the current method of paper distribution via microfiche adequately supports the essential communication. One deficiency is that we now have no mechanism for distributing ideas presented during a discussion at a CAST session.

contd.

This Newsletter was published, courtesy of University Computing Company, Computing Services Division.

Since suitable journals of record are available, Ch.E. Computing Progress probably should emphasize dissemination of items of wide interest to the CAST membership with minimal delay. This objective contrasts with the extensive review procedure used by journals of record to provide reasonable assurance that each contribution is significant and will be one of lasting value.

It should be noted that the number of individuals involved in this review process is relatively limited for each idea. This raises the question just how widespread the distribution of such ideas and the relevant detail should be until they are "proven".

Other Information Worthy of Publication

An important role of a quarterly magazine would be the publishing of frequent reviews of what is new in each area within CAST. New developments in the field can be presented in news articles, features and critical comparisons or published as papers within categories requiring minimal review.

In addition to material presented in CAST sessions, a number of CAST members offer continuing education short courses intended to bring the course attendees up-to-date in the area covered. Class notes from these courses could be provided at an appropriate charge, just as textbooks are available on courses for academic credit through a university.

What About Commercial Products?

Another function of the quarterly can be to make our membership aware of what is new and the experiences of others in applying commercial products. Commercial software products are widely used by CAST members. Thus there should be strong interest among our membership in information about CAST related software. However, ethical and even legal questions arise on issues such as equal opportunity, bias or misuse.

Vendors should be given an adequate opportunity to make technical presentations about their products. If the ground rules are well defined, the presentations are likely to be very informative and quite professional. Vendors will also be encouraged to advertise in the quarterly.

Many lengthy discussions have been conducted on these and other issues related to our CAST publication and programming policies. Membership inputs are desired on both the needs being addressed and implications of these policies. You are invited to attend the discussions at the Executive Committee meeting in November. If you wish to participate in any way in the preparation of the proposed quarterly, please indicate this in your responses to the inquiry on the back of the Directory Input Form in this Newsletter.

Announcement: CAST Executive Committee Meeting

Tuesday, November 16, 1982
9:00 am to Noon
Hyatt Regency Hotel
Room 315 Terrace Level
Los Angeles, California

CAST Division Executive Committee

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University of California
Santa Barbara, CA 93106

CAST AWARDS

Computing in Chemical Engineering Award

Lawrence B. Evans, Professor of Chemical Engineering at MIT, has been named winner of the CAST Division's Computing in Chemical Engineering Award in recognition of his outstanding contributions to the development and application of computing and systems technology in Chemical Engineering.

A pioneer in computer applications in Chemical Engineering, his research interests include computer aided process design, process dynamics, process control, optimization, separation technology, and energy technology.

He was a founding member of CACHE (Computer-Aids for Chemical Engineering Education) Corporation, and he is a member of the editorial advisory board for Computers and Chemical Engineering Journal.

Within AIChE, he has served on education projects, national program committees, and the executive committee for heat transfer division. He is currently a director of AIChE.

He is perhaps best known for his initiative and leadership in directing the ASPEN project at MIT to develop a general purpose process simulator. Presently, he is on leave of absence from MIT and he is serving as the President of Aspen Technology Inc.

The award consists of a plaque and a check for \$1500. Funding for three years (1982-84) has been provided by Simulation Sciences, Inc. of Fullerton, California and Intergraph Corporation, Huntsville, Alabama.

Professor Evans will be presented the award and will speak at the annual dinner meeting in Los Angeles, Tuesday evening in The Dorothy Chandler Pavilion. Cocktails (cash bar) will be from 6:30 - 7:30 pm with the dinner and meeting to follow.

Ted Peterson Student Paper Award

Dr. Mike T. Tayyabkhan (Mobil), Chairman of the 1982 CAST Awards Committee reports excellent success in acquiring endowment funding. IBM and ChemShare, Inc. have each contributed \$2500, which will be invested and the proceeds used for this new annual award of the CAST Division. The award will consist of \$500 and a plaque.

CAST Members will soon be presented the proposed modifications to the Division's bylaws for ratification. This award will be given to an individual for published work in the application of computing and system technology to Chemical Engineering. The work should have been done by the individual while pursuing graduate or undergraduate studies in Chemical Engineering.

It is the goal of the CAST Award Committee to make the first Ted Peterson Student Paper Award at the 1983 AIChE Diamond Jubilee/Annual Meeting in Washington, D.C.

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USER GROUPS

A User Group serves many purposes, but it is essentially a cooperative self-help organization to share ideas and enhancements relating to a particular software package. With its roots in IBM's SHARE and other successful organizations of merit, one of the earliest such groups in Chemical Engineering was the FLOWTRAN User Group.

An important predecessor to many of today's flowsheet analysis packages, FLOWTRAN was first licensed by Monsanto Company in 1974. The User Group held informal discussions in 1975 and 1976 and began their formal biannual meetings with rotating chairmen in 1977. Committees were organized to look into documentation and corrections. One result of their sharing, including joint enhancement implementation projects, is that about one third of the User Group version of the system now consists of user-contributed properties blocks or other flexibility features.

MIT licensed FLOWTRAN as a starting point for the ASPEN Project and the User Group addressing some of the members' needs to retain critical capabilities during the period of transition to ASPEN. The FLOWTRAN User Group is evolving and it will continue to function for some time. Meetings are open to licensees only and are now scheduled annually. This year's Chairman/Host is Ron Myers of Rohm and Haas, Philadelphia, (215) 785-7417. Their next meeting is scheduled for mid April 1983.

During the past five years this framework for operation has proven to be a very good mechanism, working to advance the concept of sharing and communications. The FLOWTRAN User Group charter has also served as a model for others in the field, such as the ECES/FRACHEM and ASPEN User Groups.

The fifth ECES/FRACHEM User Group Conference is scheduled for mid-January, 1983. Active client members, potential clients and trial licensees are welcome to attend. Discussions include applications, improvements desired, and the data service associated with the use of ECES/FRACHEM from OLI Systems, Inc. Topics in the areas of electrolyte chemistry, thermodynamics, fractionation and chemical reactor modeling are presented by the membership as well as invited guests. Recent lecturers have included Professor H. Meissner, Professor R. Wood and Professor W. Seider. For further information, contact the Chairman, Dr. Joseph F. Zemaitis, ChemSolve, Inc., 15 James Street, Morristown, New Jersey 07960, telephone (201) 540-0291

The public version ASPEN Users Group has continued to develop momentum since its first meeting in New Orleans in 1981. The Chairman, Len Fabiano, ARCO Chemical, reports he is expecting another "standing room only" meeting in Los Angeles in November. Two general meetings are scheduled for the Santa Barbara B Room of the Bonaventure Hotel on Monday and Tuesday evenings (5:30 to 7:30 pm). The program will include a technical session as well as general business and standing committee reports. The ASPEN User Group is open to prospective members as well. Only a letter to the Chairman is required for individual membership. Len's address is 3801 Westchester Pike, Newtown Square, Pennsylvania 19073, telephone (215) 359-2000.

Users groups for software related to Chemical Engineering are invited to send information about their meetings to the CAST Publications Chairman for inclusion in future CAST publications.

PACIFIC CONFERENCE: SEOUL, S. KOREA

The Third Pacific Chemical Engineering Conference (PACHEC III) is sponsored by the Chemical Engineering Societies of the U.S., Japan and Korea. Representatives from several Asian countries are expected to attend this meeting in the Hotel Lotte, the newest hotel in downtown Seoul. The Conference is conducted every five years and this year thirty sessions are scheduled for the four-day meeting, May 8-11, 1983. Professor Brice Carnahan (University of Michigan) coordinated four sessions on computer applications for the CAST Division. They include:

- Advances in Process Synthesis – Professor G.V. Reklaitis, Purdue University
- Computers in Process Design and Analysis – Professor Brice Carnahan, Michigan
- Computer Applications in Process Control – Professor Henry Lim, Purdue University
- Computer Graphics – Dr. E.M. Rosen, Monsanto Company

CAST Members planning to attend may contact Professor Carnahan regarding possible special flight arrangements being considered by some of the U.S. organizers.

DIRECTORY INPUTS

To make the CAST Directory more useful we plan to include more information than what now appears on the mailing label. Please supply as much of the following information as is appropriate:

A.I.Ch.E. member number _____
(leave blank if you are not A.I.Ch.E. member)

Name (last name first) _____

Home Address—Street _____

City, State Code & Zip _____

Home Phone Number _____

Company Information

Company Name _____

Division or Department _____

Street Address _____

Mailing Address if different _____

City, State Code & Zip _____

Company's
Phone Number _____

Extension _____

Background Information

How long have you been A.I.Ch.E. Member _____ years

Number of national meetings you have attended _____

Have you ever ordered from A.I.Ch.E. microfiche
of papers of interest? ___Yes ___No

In which of the CAST Programming areas are you active?

Systems and Applied Math _____

Systems and Process Control _____

Computers in Management and Information Systems _____

What Computing and System Technology related journals and Magazines do you read frequently?

PREFERENCES

	YES	Don't care	NO
Would you like the proposed Quarterly magazine to contain the following:			
1. Frequent reviews of new ideas and techniques in each of a number of specialty areas	_____	_____	_____
2. Reviews of the new ideas and discussion of papers at each of the CAST sessions at A.I.Ch.E. National meetings.	_____	_____	_____
3. Condensations of the papers at CAST sessions containing the more important contributions of each paper	_____	_____	_____
4. Complete text of papers which describe: User experiences with a new computational technique	_____	_____	_____
Computation techniques	_____	_____	_____
New applications of standard packages or widely used techniques	_____	_____	_____
New computational techniques	_____	_____	_____
5. Reviews of the CAST related content of a list of computing and applications oriented journals and magazines.	_____	_____	_____
6. New software and hardware products available from vendors.	_____	_____	_____
7. User experiences with available commercial software.	_____	_____	_____
8. User experiences with available computers, microcomputers, programmable calculators.	_____	_____	_____
9. Book reviews.	_____	_____	_____
10. CAST session programming plans calls for papers for approved sessions preliminary planning of future sessions	_____	_____	_____
11. Algorithms for new computational techniques.	_____	_____	_____
12. Review articles summarizing new contributions in dissertations.	_____	_____	_____
13. Review of research activities underway at universities and in industry.	_____	_____	_____

Return to Dr. Edward Gordon
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 3333 Michelson Drive
 Irvine, CA 92730
 (714)975-3531

Ordering Microfiche and Paper Copies

Microfiche: Order from AIChE headquarters. Available for 1 year after a meeting. Prices: \$1.50 per fiche for members – \$3.00 per fiche for non-members.

Paper Copies: Can be ordered from AIChE headquarters, 345 East 47th Street, New York NY 10017, during the first six weeks following a meeting. After that time, please place orders with the Engineering Societies Library at same address. Papers not received in time for microfiche are not available from AIChE. For copies of those papers please contact the Author. Prices are based on 15¢ per page. Call AIChE Technical Publications Dept. (212) 644-7657 for more information. Papers are ordered by paper number as they are identified in the meeting program.

PAYMENT MUST ACCOMPANY ALL ORDERS. U.D. ORDERS ARE SENT POSTPAID. PLEASE INCLUDE \$1.00 PER FOREIGN ORDER TO COVER POSTAGE AND HANDLING. ALL SALES ARE FINAL. NO RETURNS ARE ACCEPTED.

Microfiche for Fall Annual Meeting, New Orleans, November 8-12, 1981

Session 15	Interactive use of Computers with Laboratory Reactors d,e,f: Fiche 2
Session 48	Advances in Process Synthesis a: Fiche 19 b,c: Fiche 61; d: Fiche 63, f: Fiche 22
Session 49	Computers in Process Design and Analysis Part I a: Fiche 104, b,e: Fiche 88; c,d: Fiche 64
Session 50	Computers in Process Design and Analysis Part II a,b: Fiche 80; c: Fiche 68; d: Fiche 21; f: Fiche 117
Session 51	Computer Aided Design of Batch and Semi-Continuous Processes a: Fiche 21; b: Fiche 97
Session 52	Schedule of Process Operations b,e: Fiche 68; c,d: Fiche 26
Session 53	Graphics in Chemical Engineering b: Fiche 84; d: Fiche 27; f: Fiche 24
Session 54	Analysis of Nonideal Separation Systems a,c,e: Fiche 23; b: Fiche 87; D: Fiche 115; f: Fiche 22; g: Fiche 1
Session 55	New Methods in Mathematical Modeling and Analysis b,c: Fiche 26; d: Fiche 67; f: Fiche 66
Session 56	Dynamics and Control of Chemical Reactors and Process Systems Part I a: Fiche 62; b,c: Fiche 22; d: Fiche 21; e,f: Fiche 25; g: Fiche 11

Session 57	Dynamics and Control of Chemical Reactors and Process Systems Part II a: Fiche 101; b,d: Fiche 65; c,f: Fiche 27; e,g: Fiche 64
Session 58	Dynamics and Control of Chemical Reactors and Process Systems Part III a,e: Fiche 24; b: Fiche 30; c: Fiche 29; d: Fiche 28
Session 59	Restructuring Process Control Education b: Fiche 88
Session 101	Simulation and Modeling in the Pulp and Paper Industry a,d,e: Fiche 106
Session 142	Mathematical Modeling for Land Treatment Systems a: Fiche 52; c,d,e: Fiche 50

Microfiche for Winter National Meeting, Orlando, February 28-March 3, 1982

Session 19	Modeling of Process Systems a,c: Fiche 24; d,e: Fiche 26; f: Fiche 25
Session 20	Energy Integration Techniques a: Fiche 9; b: Fiche 11; c,d,f: Fiche 7; e: Fiche 8; g: Fiche 10
Session 21	"Computer-Aided Process Design and Simulation with Aspen" – I d: Fiche 12; e: Fiche 44
Session 22	"Computer-Aided Process Design and Simulation with Aspen" – II a: Fiche 13; c,d: Fiche 22; f: Fiche 21
Session 24	Process Economics By Computer b,d: Fiche 40
Session 25	Graphics In Chemical Engineering a,b,e: Fiche 4; c,d: Fiche 3
Session 26	✓ Problems in Establishing Local Distributed Networks and Their Resolution a: Fiche 37
Session 27	✓ New Developments In Industrial Process Control Part I a,b: Fiche 13; c: Fiche 14
Session 28	✓ New Developments In Industrial Process Control Part II b,d,e: Fiche 14; c: Fiche 15
Microfiche for Spring National Meeting Anaheim, June 7-10, 1982	
Session 8	✓ Safety Aspects of Computer Control a,b,c,e: Fiche 17; d: Fiche 18
Session 33	✓ Distributed Control in the 80's a,c,d,e: Fiche 2; b,f: Fiche 1
Session 20	✓ Computing in Project Management – From Design to Start-up a: Fiche 32 (Management division)

Reduced subscription US \$30.00 (Vol. 6, 1982) available to members of Computing & Systems Technology Division of AIChE. Cash with order direct to the Publisher.

Computers & Chemical Engineering

An International Journal

Editor: **Richard R Hughes**, *University of Wisconsin, Madison, USA*

Computers & Chemical Engineering is primarily a journal of record for new developments in the application of computers to chemical engineering problems.

Several major areas of chemical engineering study are represented:

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Design Methods for Chemical Engineering Equipment, including Chemical Reactors, Distillation Columns, Extractors, etc.

Applications of Computing and Numerical Analysis in Chemical Engineering Science

Recent Papers:

R Taylor and D R Webb

Film models for multicomponent mass transfer; computational methods: the exact solution of the Maxwell-Stefan equations

M J Urbicain and J Paloschi

Simulation of air-cooled heat exchangers

Iren Suhami and
Richard S H Mah

An implicit enumeration scheme for the flowshop problem with no intermediate storage

Hiromitsu Kumamoto, Koichi
Inoue and Ernest J Henley

Computer-aided protective system hazard analysis

Jaime Castillo and
Ignacio E Grossmann

Computation of phase and chemical equilibria

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FOCAPD – 83 SUMMER IN THE ROCKIES

Since the first FOCAPD was held in July, 1980, rapid advances have been made in many of the areas of process design discussed by the small group of participants from industry, governmental labs and universities (from 16 countries) who met at New England College. The Second International Conference on Foundations of Computer-Aided Process Design will again bring together a limited and select group for a week-long intensive assessment of the present status and future needs in computer-aided process design. Each session will feature a "state-of-the-art" review by one of the leading experts in the field.

A Rocky Mountain resort, Snowmass, Colorado, is the site for the meeting: July 19–24, 1983. The Co-sponsors of the event are Area 10a of CAST, the National Science Foundation and CACHE (Computer-Aids for Chemical Engineering). The Chairman is Professor Arthur W. Westerberg, Carnegie-Mellon University and the Co-Chairman is Dr. Henry H.Y. Chien of Monsanto, St. Louis. For further information contact Vickie S. Jones, CACHE, MEB3062, University of Utah, Salt Lake City, Utah 84112.

APRIL IN PARIS

The Third International Congress on Computers in Chemical Engineering, sponsored by the Societe de Chimie Industrielle is being held in Paris, France, April 19–21, 1983. Over 250 people are expected from Europe, Japan, USSR, and the U.S. Ten papers from the United States were arranged by CAST Director Professor G.V. Reklaitis of Purdue University.

The AIChE is one of the co-sponsors of the congress which, this year features the application of Computers in Chemical Engineering for the Food Industry. The program will include a wide variety of topics including flowsheeting, dynamic simulation, cost estimation, optimization, and batch reactor modelling. CAST Program Board Chairman, Professor Warren D. Seider of the University of Pennsylvania will be one of the plenary lecturers.

For information, contact Mr. Dominique Depeyre, Secretariat, 28 Rue St. Dominique, F-75007 Paris, France.

Available from the AIChE:

Proceedings of FOCAPD-80, Volumes I and II. Edited by Richard H.S. Mah and Warren D. Seider.

Topics covered include:

- Non-linear algebraic equations
- Thermophysical and transport properties
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- Process modelling and analysis of multi-staged towers
- Solution of ordinary and partial differential equations
- Process modelling and analysis of reactors
- Flowsheeting programs
- Process synthesis

Also includes state-of-the-art reviews in those areas by international authorities, plus summaries and discussions. Author and subject indexes.

(Vol. 1. LC81-66725 ISBN 0-1869-0189-0) 549 pp.

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(Set 0-8169-0191-0)

Pub. # P-28 (Vol. 1)

AIChE Members \$24, Others \$30.

Pub. # P-29 (Vol. 2)

AIChE Members \$24, Others \$30.

Set: Pub. # P-28 & P-29

AIChE Members \$40, Others \$50.

CAPE '83 Amsterdam, The Netherlands

The "First International Conference on Computer Applications in Production and Engineering" (CAPE '83), April 25–28, 1983 is sponsored by the IFIP Technical Committee 5.

The objective of the conference is to highlight the development and applications of computer programs and computer systems that will improve specification, design, production scanning, manufacture and production phases of industrial and consumer products.

The AIChE contact is E.M. Rosen, Monsanto Company, 800 North Lindbergh Blvd., St. Louis, MO. 63166; (314)694-6412.

LOS ANGELES SYMPOSIUM SCHEDULE: Industry's Practical Application of Computer Technology

Provocative new topics and strong Industry participation highlight the CAST-sponsored sessions for the Los Angeles Annual Meeting November 14-19. Professor Warren D. Seider (University of Pennsylvania), Program Board Chairman coordinated the eleven-session CAST Symposium schedule. He is also chairing the Wednesday session entitled "Computers in Process Design and Analysis", a potpourri of new innovative approaches to this fundamental topic. The twelve papers in this session address many techniques, from speeding up the computation of flowsheet systems to roadmaps for sequencing azeotropic and other distillation towers. One paper presents a linear programming model of the entire U.S. Petrochemical Industry, used for making projections of future development for a variety of economic and technological scenarios.

The joint 10a and 10b session entitled "Interface Between Process Design and Process Control" is expected to be a provoking discussion. Topics include synthesis of control systems, resilient control systems and one paper with the appropriate title, "How to Design Uncontrollable Processes". The two sessions on "Systems and Process Control" address both the new approaches in process control concepts and the specific application of control systems to chemical reacting systems. Reactor dynamics for chemical reactors, fixed bed reactors and coal gasification processes are included in six papers under "Dynamic Process Models for Control Systems."

A first-class agenda has been prepared by Professor Bruce Finlayson (University of Washington) on the subject "Applied Math and Numerical Methods". In keeping with the industry emphasis, the key word here is "applied". The interest in the area is apparently healthy; many more papers were submitted than could be slotted. Papers from CalTech and Purdue demonstrate the utility of abstract functional analysis to practical problems, such as the identification of the properties of oil reservoirs or the fluid mechanics of reservoir simulation. The use of numerical and finite element calculations in solving very difficult problems in areas such as Food Mechanics are addressed in papers from Minnesota and MIT.

The three sessions in area 10c on Project Optimization include a state-of-the-art review of basic methods, specialized software for today's Chemical Engineering problems and examples of direct application of these techniques in industry. Professor G.V. Reklaitis (Purdue University) reports that this

session will feature eight speakers who are outside experts in the fields of optimization and mathematical programming. Optimization experts from Chemical Engineering include representatives from Exxon, Shell and Carnegie-Mellon University. "Optimization of Entire Plant Operations" is viewed from a variety of angles; the five papers are from Honeywell, Shell, ARCO Chemical, Process Technics and North Carolina State.

What are the costs involved in using process simulation successfully, both from a personnel and a technical point of view? What is industry's view of where process simulation is going? These questions are being considered for the first time in CAST-sponsored programming in the area 10a session organized and chaired by Professor Lawrence B. Evans (MIT). The session is entitled "Computer Modeling and Simulation - Are They Cost Effective?". Six speakers, each with 8 to 10 years of experience in managing this function, will discuss practical applications, cost/benefit analysis and important features of process simulators for industry today and for the future. This international panel of presenters include representatives from Monsanto Company, Air Products and Chemicals, Chiyoda (Japan), Mobil Research, Olin Chemical and Imperial Chemical Industries (Great Britain).

Another new and timely topic is being considered in the CAST agenda this year: "Data Reconciliation and Rectification". Conceived and coordinated by Professor Richard S.H. Mah, who has been experimenting in the area, the session will deal with concrete examples illustrating the techniques for improving the validity of data collected for control, optimization and modeling. Presentations from academic and industrial users will show techniques and rules for judging a pilot plant measurement erroneous and reconciling the ones you have to the physical laws. Redundancy and math models are discussed as methods for getting the most out of experiments.

Data specialists and others following the data research projects of the AIChE will also be interested in the "DIPPR Annual Open Meeting" on Wednesday afternoon, November 17th. Contractors and committee chairmen will report of the status, results and accomplishments of the various projects, including the data now being disseminated to the sponsors and later to be published by the AIChE.

NOTE:

Many of you are receiving this Newsletter in the mail for the first time. The Secretary now maintains a current mailing list which includes CAST Members not yet on the AIChE Membership rolls.

Special Petro Expo Exhibit on Information Management

Engineers and managers will find it easier to explore the range of tools available in "Information Resource Management and Database Technology" at next year's Petro Expo in Houston. The Expositions Manager, Marie Stewart of the AIChE is preparing a "contiguous section amidst all the pipes" at the 12th Petrochemical and Refining Expo, especially for exhibitors of data management software, hardware, services and related special information management tools.

This is being done in conjunction with the very special joint sessions sponsored by the CAST and Management Divisions (10c and 5c) for the Spring 1983 National Meeting at the Astrohall. The sessions include:

- Information Resource Management Technology: State of the Art
- Cost/Benefit of Data Base Systems: Panel Discussion
- Engineering Data Base Applications: Invited Papers and Panel Discussion
- On-Line Information Services for Engineers and Managers

Find your September 1982 Issue of Chemical Engineering Progress and read the article on this special Expo feature supporting AIChE technical sessions. Vendors interested in further information on the Exposition may call Maria Stewart at (212) 705-7322.

Advertising Space Available

A Directory of the Computer & Systems Technology Division of AIChE is currently in the development stage. Anyone interested in advertising space in this Directory contact Dr. Ed Gordon, Publications Chairman, Fluor E & C, 3333 Michelson Drive, Irvine, CA. 92730 Telephone: (714)975-3531.

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THE COMPETITIVE EDGE

Technology is growing and its growing at an ever accelerating rate. This new technology is providing the process engineer with tools to compete more effectively in areas including:

- Process Design
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- Special Equipment Design
- Data Management

For more than 10 years, UCC has tailored its services to the process engineer by providing a complete library of Chemical Engineering products which now includes:

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- DESIGN 2000
- ECES/FRACHEM
- GPA*SIM
- HEXTRAN
- IRIS & PDSMS
- KEMDAT
- PFR CODES
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Meetings, Meetings, Meetings

March 27-31, 1983

Spring 1983 National AIChE Meeting and 12th Petrochemical and Refining Exposition, Astrohall, Houston, Texas

April 10-15, 1983

National Meeting of American Chemical Society in Seattle, Washington

April 19-21, 1983

Third International Congress on Computers in Chemical Engineering, Paris, France

April 25-28, 1983

CAPE '83 in Amsterdam, The Netherlands

May 2-5, 1983

The 15th Offshore Technology Conference in Houston

May 8-11, 1983

PACHEC III in Seoul, S. Korea

July 11-14, 1983

Summer Computer Simulation Conference in Vancouver, British Columbia, Canada. Chairman Dr. Stewart Schlesinger, The Aerospace Corporation, Box 92957, Los Angeles, CA, (213) 648-6020. 90009.

July 19-24, 1983

FOCAPD - 83 at Snowmass, Colorado

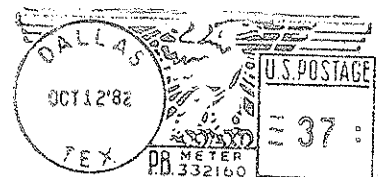
August 28 - September 2, 1983

American Chemical Society National Meeting in Washington, DC

October 30 - November 4, 1983

AIChE's Diamond Jubilee and Annual Meeting at The Washington Hilton, Washington, DC

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