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CHICAGO SECTION • IEEE • INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS

MARCH 1977

CALENDAR OF EVENTS

*For reservations call the IEEE office at 236-4609
(Unless otherwise indicated)*

- March 2 "Hi-Cap Mobile Communications," Fox V. Sub. (j w/VT Grp. & Comm. Grp.), Plantation Ltd., 201 E. Ogden, Westmont, Ill. Dinner 7:00 PM; Meeting 8:00 PM.
- 8 IEEE Executive Committee Meeting; Brown & Root Offices, 2001 Spring Rd., Oak Brook, Ill., 7:30 PM – ALL WELCOME.
- 8 "Applications of the Uniform Theory of Diffraction," MTT/APS, Black Steer, 6446 W. North Ave., Chicago, Ill. Social 6:00 PM; Dinner 7:00 PM; Meeting 8:00 PM.
- 9 "Microprocessors – for Industrial & Power Plant Applications," IAS/IECI, Nielsen's 7330 W. North Ave., Elmwood Park, Ill. Social Hour 5:30 PM; Dinner 6:15 PM; Meeting 7:15 PM.
- 16 "Television – where has it been; where is it at; where is it going?" NW Sub., Maitre D', 111 E. Higgins Rd., Elk Grove Village, Ill. Social Hour 6:00 PM; Dinner 7:00 PM; Meeting 8:00 PM.
- 22-24 Electri '77. Exposition of electrical products sponsored by the Electric Assn. Serving Chicagoland in cooperation with the participating membership of (among others) the IEEE Calumet & Chgo. Sectns. Hours 2-9 PM. McCormick Pl.
- 22 "Reliability of Semi-Conductor Memories," Reliability Grp., House of Windsor, 6565 N. Mannheim Rd., Rosemont, Ill. Dinner 6:00 PM; Meeting 7:00 PM.
- 23 "Large Turbogenerators w/Water-Cooled Stator & Rotor Windings," PES, Midland Hotel, 172 W. Adams St., Chicago, Ill. Social Hour 11:00 AM; Luncheon 11:45 AM; Meeting follows.
- April 5 MTT/APS. No information by deadline.
- 6 "Solar Energy," Fox V. Sub. (j w/Western Sub. Div., WSE), Andy's Steak House, 17W611 – 22nd, Oak Brook, Ill. Dinner 7:00 PM; Meeting 8:00 PM.
- 7, 14, 21, 28 Microprocessor Systems Design Course offered by the Computer Society, Chicago Section IEEE & Northwestern University. Course being held at N.U., Evanston.
- 12 IEEE Executive Committee Meeting; Brown & Root Offices, 2001 Spring Rd., Oak Brook, Ill., 7:30 PM – ALL WELCOME.
- 13 "Utility & User Interface," IAS/IECI, Nielsen's, 7330 W. North Ave., Elmwood Park, Ill. Social Hour 5:00 PM; Dinner 6:15 PM; Meeting 7:15 PM.
- 13 VT Grp. No information by deadline.
- 14 "Status Report on Square Butte HVDC Transmission Line," PES (j w/Western Sub. Div., WSE). Location not determined. Evening.

PLEASE: Mark your two month Scanfax calendar for a desired meeting.

We cannot accelerate Postal Service or sending of meeting information.

Deadline for copy: One month before date of issue.

New MIDCON Convention Set

Remember the National Electronics Conference (N.E.C.)? MIDCON is the show for you this year. This will be a big IEEE event and volunteers are urgently needed. If you can help in any phase of the convention, please call the IEEE office at 236-4609.

MIDCON, the new electronic convention and exposition sponsored by ERA

and IEEE, will be presented for the first time next November in Chicago. The show and convention will be held November 8, 9, and 10, 1977 in O'Hare International Convention Center and Hyatt Regency O'Hare Hotel, it was announced by David B. Pivan, chairman of the 12-man MIDCON board of directors.

MIDCON is co-sponsored by regional elements of the Institute of Electrical and Electronics Engineers and the Electronic

Representatives Association. Directors represent Regions 3, 4, and 5 of IEEE, as well as the national IEEE, ERA national, the ERA Chicagoland and Southwest chapters, and new regional councils of ERA known as Mid-USA and Southeast.

It is a non-profit event, organized and managed by the professional staff of Electrical and Electronics Inc., a non-profit corporation. The EEE Inc. staff also produces Wescon annually in California and Electro, the eastern conven-

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cation that alternates between Boston and New York City.

MIDCON's format, technical program, and special convention events will be modelled on those of Wescon and Electro, it was reported by William C. Weber Jr., general manager of the EEE Inc. staff, and also general manager of MIDCON.

Long-range plans for MIDCON are in the process of formulation but plans for November 1977 (Chicago) and for 1978 in Dallas are official, with current plans also to return to Chicago in 1979.

MIDCON becomes the third event--along with Wescon and Electro--to present major electronics conventions under joint sponsorship of local and regional members of IEEE and ERA.

Electro/77 will be presented in New York City (April 19-21); Wescon in San Francisco (September 19-21); and MIDCON in Chicago (November 8-10). All will be under EEE Inc. administration and management. Each convention has its own volunteer board of directors and relies heavily on local, volunteer show and convention committees.

In its premiere presentation 1977, MIDCON will have about 300 exhibit units (about 175 exhibits), and an expected professional-level attendance of about 20,000 persons. A complete prospectus

will be available in mid-March, he commented, adding that exhibit space prices have already been established at \$900 for a standard 10-foot booth. Booth assignments will be made on a first-come, first-served basis and will be used to establish the Assignment Order Number list similar to the ones utilized by Wescon and Electro.

Electro/77 is very close to a sellout of 551 available booths in the New York Coliseum, Weber reported. Wescon last September in Los Angeles had 749 exhibits and an attendance of 36,500, but will be limited to about 600 exhibit units in San Francisco in 1977, the maximum space available in Brooks Hall and Civic Auditorium.

Mr. Pivan, chairman of the MIDCON board of directors represents IEEE Region 4 on the board. Other officers include Board Vice-Chairman Robert Wilson of Brainard-Wilson Associates; Show Director Paul Carroll, head of Semiconductor Specialists, and Howard Wolfman of Teletype Corporation, Convention Director. Treasurer is Jess Spoons of J.Y. Schoonmaker Inc.

TURBOGENERATORS

The Power Engineering Society will have an interesting meeting March 23rd on "Large Turbogenerators with Water-Cooled Stator and Rotor Windings". The speaker will be Mr. John S. Joyce of Allis-Chalmers.

The application of liquid cooling first to armature windings and then to field windings is traced. The design of generators with water cooling of both stator and rotor windings is described. The benefits of this technology are explained. An account of the operating experience gained with such machines is given, particularly the availability of the 1500 and 1530 MVA Biblis Generators. Finally the potential for very large units employing this technology in the future is discussed.

Mr. Joyce graduated in 1954 in Mechanical and Electrical Engineering from the National University of Ireland in his home city, Dublin. For the next seven years he worked in Siemens AG as an Electrical Engineer in systems analysis and design of generators and switchgear. In 1961, he transferred within Siemens to the Steam Turbine Department. Prior to

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Meeting Reservations

Remember that the IEEE office, (312) 236-4609 will take your meeting reservations. Call anytime between 8:00 AM and 5:00 PM, Monday through Friday.

The meeting coordinator for any group should call and leave his number with the office, so they can refer questions on matters other than reservations.

Change of Address

If you have moved - or are about to move - please notify the IEEE Service Center in New Jersey. Our SCANFAX mailing labels come from there, and we cannot update your mailing address locally in Chicago.

A change of address form is included in each issue of SPECTRUM. Your local post office will also supply you with cards; mail to Roseann Schulz, Member Services, IEEE Service Center, 445 Hoes Lane, Piscataway, N.J. 08854. Include your SPECTRUM mailing label if possible. We cannot forward this information for you, so please do not send it to the local office.

SPRING TERM

The Spring Term schedule of courses being offered by the Chicago Lighting Institute/Electric association has been scheduled to begin March 28, 1977. Whether you're new to the Electrical Institute where our IEEE office is located, or have been with us awhile, there is a course available to increase your professional knowledge and expertise. Classes are held one day a week starting March 28. The following is a list of courses and starting times:

Electrical Codes	Monday	March 28 - May 16
Blueprint Reading	Thursday	March 31 - May 5
Motors & Motor Controls	Tuesday	March 29 - June 14
Overcurrent Protection	Thursday	March 31 - June 2
Lighting Basics	Monday	March 28 - June 13
Lighting Applications	Tuesday	March 29 - June 14
Advanced Lighting Design	Wednesday	March 30 - June 15
Electrical Estimating II	Wednesday	March 30 - June 1
Creative Salesmanship	Monday	April 4 - May 9

and a NEW COURSE... to be taught by Lee Butter & Associates, Inc. Transformers-Fundamentals & Application, Thursday, March 31 - June 2.

For further details, call 236-4609.

ELECTRONIC GAMES

On March 17th at the Standard Oil building in downtown Chicago there will be a demonstration and discussion on innovations of electronic games. This will be a joint meeting of the Chicago Section, the Computer Society, and the Association for Computer Machinery.

The speakers will be Ward Christensen, IBM System Consultant, Terry Todd, Bell Telephone Laboratory at Naperville and Larry Sipivoc, Semi-Conductor Specialists. Ward and Terry are two of Chi-

cago's top personal computer hobbyists and will demonstrate their personal game packages utilizing audio cassettes. Larry will demonstrate the Fairchild F8 commercial game.

The room locations will be posted in the lobby of the Standard Oil building. Cocktail time is 5:30 P.M., Dinner at 6:30 P.M. (approx. \$7.50) and the meeting at 7:30 P.M. Make your reservations with Joe Leubitz of A.C.M. by phone to 368-1800.

MICROPROCESSOR COURSE

Five consecutive half Saturdays beginning APRIL 23, 1977 at the Intercontinental Center, Eisenhower Expy & 1st Ave., Maywood, Ill. Instruction by Harold Kantner, Microcomputer Systems Consultant. Presented and staffed by INTERNATIONAL SYSTEMS CORP. Telephone (312) 344-1333.

COURSE DESCRIPTION

This introduction to microprocessors and microcomputers aims to teach what they are, what they do and how to use them. Participants will write and run programs on a microcomputer system during the course.

FEES

The fee for this five session course is \$275.00

NOMINATING COMMITTEE SELECTS SLATE

The Chicago Section IEEE Nominating Committee, Paul Jahn, Chairman, has selected a slate of Officers and Executive Committee Members for the 1977-1978 fiscal year. Any IEEE member who wishes to place anyone else's name in nomination may do so by presenting the Nominating Committee with a petition bearing 10 members' signatures. All such petitions must be received by Paul Jahn at Commonwealth Edison Co., Waukegan Station, Greenwood Ave. at Lake Michigan, Waukegan, Ill. 60085 by April 1, 1977.

Candidates slated by the Nominating Committee for Section Officers are: Chairman, Robert A. Waghorne, Teletype Corporation; Vice Chairman, John E. Waters, Bussmann Manufacturing Division; Treasurer, Charles Hatstat, Sargent & Lundy; and Secretary, Paul Geiger, Allen-Bradley Co.

Candidates for the Executive Committee are: George W. Austin, Mike Barnes, Chuck Borchert, Walter Ciciora, Dennis Lamont, Ed Osterberg, and Howard L. Wolfman.

REGISTRATION

Mail completed form and check to:

International Systems Corp.
1701 S. First Avenue
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GOALS FOR '77

The United States Activities Board (USAB), which assumes the professional activities for the IEEE, will commit itself to three major objectives for 1977, according to the recently selected vice president for professional activities and head of USAB, John Guarrera. Improving member economic benefits, career conditions and opportunities, and raising the image and status of the engineer as a professional will form the foundation on which USAB hopes to build a strong, long-term program to aid the continuing needs of its members.

As part of the improvement plan for member economic benefits, pensions will again come up as an issue this year. Pension reform began when the Employee Retirement Income Securities Act (ERISA) of 1974 became law. IEEE has been active in pushing for legislation to close some of the loopholes that developed during ERISA's implementation. Serious issues, such as extending the law to permit those covered by poor pension plans to supplement their plan through their own contributions, remain to be resolved. IEEE's USAB is hoping to get legislation proposed so that employees may choose to opt out of their employer's pension plan, with the eventual goal of a "carve out" system that would enable professionals to keep a pension plan going regardless of whether they change employers.

Employment rights under government contracts and an examination of patent laws and the rights of inventors are also part of the economic benefit program. Working with employers to keep engineers qualified through training and continuing education in light of changing career conditions will be another area of emphasis, according to Guarrera. An affirmative action program for senior engineers, enabling engineers over forty to receive preferred treatment status, similar to minority-type programs, has also been proposed.

Improving the image and status of the working EE may be one of USAB's toughest undertakings. States Guarrera, "Some of us feel that in order to accomplish anything in this area, we must have mandatory universal registration for engineers." He expects that registration will be one of the topics for discussion at USAB's January meeting. If USAB approves mandatory registration, it will then go to the full board. A random sampling of IEEE members recently revealed, says Guarrera, that 2/3 of the members

are interested in regulating the quality of engineers in the profession, while over half are concerned with controlling the quantity of engineers.

The new vice president of professional activities is also hopeful that efforts will be made toward the establishment of a legal defense fund for engineers. Stabilization of the Congressional fellow program might also be part of his administration.

Improved communications with IEEE members is also going to be one of USAB's goals. The Institute has been under attack by a major portion of its membership for falling down in its reporting of Institute news. A section of supplement news of the various IEEE subgroups has been added as of January to the Institute's monthly magazine.

HELP FOR ENGINEERS

The CSIT decided to undertake the investigation of cases where engineers pursuing their professional work in accordance with the IEEE Code of Ethics have, as a result, been subjected to or threatened with unfair treatment. Where a careful study of the circumstances indicates that such a situation exists, efforts will be made to aid the engineer involved. For example, if legal action is being taken, the case might be brought to the attention of the IEEE Board of Directors with a recommendation that they instruct the Institute's attorneys to file an amicus curiae brief, as in the BART case.

It should be emphasized that only cases in which engineering ethics pay a central role will be considered. CIST is not volunteering as a shop steward for engineers dissatisfied with their last pay increases.

Readers acquainted with engineers in such predicaments are invited to inform them of this possible source of help. Initial contact should be made with the chairman of CSIT's Working Group on Ethics and Employment Practices: Prof. Stephen H. Unger, Electrical Engineering & Computer Sciences, S. W. Mudd Building, Columbia University, New York, N. Y. 10027 (212) 280-3107 (or 3104).

CALL FOR PAPERS

Papers are being solicited for the First International Conference on Computer Software and Applications - COMPSAC 77. Sponsored by the IEEE Computer Society, COMPSAC 77 will bring together computer practitioners, users, and researchers to share their ideas, experiences, and requirements for applications software, management techniques, and software development support, including automated techniques. Attendance at COMPSAC is a must for the computer professional and practitioner alike who wants to keep up on the latest developments in this important, fast-moving field.

Papers should range in length between 1000 and 5000 words. Submission deadline: June 1, 1977. Authors will be notified of acceptance by August 1, 1977, and will be given instructions for final preparation of their papers for inclusion in the conference proceedings. Deadline for submission of camera-ready papers: October 1, 1977. Exceptionally high quality papers will be considered for publication in IEEE, Transactions on Computers or IEEE, Transactions on Software Engineering.

Submit papers (5 copies, double-space typing) to the program chairman:

Dr. Dick B. Simmons
Director, Data Processing Center
Texas A & M University
College Station, TX 77843
Telephone: (713) 845-4211

For additional information, contact the general chairman:

Professor Stephan S. Yau
Chairman, Department of Computer Science
Northwestern University
Evanston, IL 60201
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joining the newly formed Allis-Chalmers Power Systems, Inc. in 1970, Mr. Joyce had gained experience in many aspects of thermal power plant design. He is presently Manager of Engineering at West Allis, Wisconsin.

The meeting will take place at the Midland Hotel, 172 W. Adams Street, Chicago, Illinois. There will be a social period at 11:00 A.M. followed by luncheon at 11:45 A.M. and the meeting at 12:30 P.M. Make your reservations early -- call the IEEE office at 236-4609.

TELEVISION

"WHERE IT'S BEEN,
WHERE IT'S AT,
WHERE IT'S GOING!"

An overview of the home television set industry will be presented at the March 16, 1977 meeting of the Northwest Subsection.

The guest speaker, a Senior Member of IEEE, Dr. Walter Ciciora, is Section Manager, Research Department, of the Zenith Radio Corporation. His presentation will reach back in time to review the history of television, the state of the art and early technology. This will be followed by a consideration of the current status, both black & white and color receivers, and end with his thoughts of the future, covering such things as television games, flat-screen television, improved clarity and picture resolution, cable television, home banking and financial transactions, glass fiber transmissions and more. Dr. Ciciora will then conclude with a question and answer period.

The meeting will be held at the Maître'D Restaurant, 111 E. Higgins Road, Elk Grove Village, Illinois, and will begin



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with a Social Hour - 6:00 P.M., followed by Dinner - 7:00 P.M. The Meeting will begin at 8:00 P.M. All IEEE members and guests are invited.

Please make reservations for Dinner and/or the Meeting by March 14. Call the IEEE Office at 236-4609.

SEMI-CONDUCTOR MEMORIES

The IEEE Reliability Group will present a dinner and panel meeting on "Reliability of Semi-Conductor Memories" on March 22, 1977. The meeting will consist of a 4-member panel with two semiconductor memory manufacturers and two using firms. Semi-conductor panel members will consist of Keith Lovelace, Head of Reliability Section at Texas Instruments, Houston, Texas facility, and Bill Bennet, a member of the Reliability Staff of Mostek. User firm panel members will consist of Patrick Shuba, Senior Supervisor of Memory Systems at GTE Automatic Electric Laboratory, and a second user to be announced. A short presentation will be made by each panel member on techniques used to achieve, control, and measure reliability of semiconductor memories, followed by a question and answer period.

The meeting will be held at the House of Windsor, 6565 North Mannheim Road, Rosemont, Illinois, with dinner at 6:00 P.M. and the meeting starting at 7:00 P.M. The dinner will be a family style, beef and chicken, at a cost of \$8.50. Please make reservations by calling the IEEE Office at 236-4609. For further information, call Rod Garcia at 259-0740.

AN APOLOGY

On January 22, 1977 the MTT/A&P Society had a meeting entitled "The Viking Mission." It was highly successful with 100 persons in attendance. A number of guests have inquired as to the financial outcome of this meeting. In general, the IEEE has no control over catering services. When 20 persons, who had

ELECTRONIC ASSOCIATION EXPOSITION

Six months before March 21, when Mayor Bilandic officially opens Electri '77 the original block of 201 booths was completely sold out and now has expanded to 280. All of this enthusiasm ensures the biggest and best exposition ever. It is anticipated that over 12,000 will attend....all of them key people from the electrical industry.

Electri '77 is the 16th triennial exposition of electrical products sponsored by the Electric Association Serving Chicagoland in cooperation with the participating membership of (among others) the IEEE Calumet and Chicago Sections.

There is a world of improvements taking place from year to year in the electrical industry. Three years will have elapsed since the '74 show, so every manufacturer represented will be showing the new products that contractors, distributors, engineers, inspectors and purchasing agents want to see and learn about. Every exhibit will be manned by knowledgeable personnel during the 2 to 9 PM show hours on March 22, 23, and 24 at McCormick Place.

For free advance registration tickets call the Electric Association on 236-4609 or register in person at the exposition.

reserved, failed to attend the luncheon, the caterer demanded payment in full. Sensing a disaster was at hand, we requested a small donation for a coffee break, which was to have been free.

Our Society sincerely hopes that attendance will continue to be strong in spite of this inconvenience and we will take steps to prevent further recurrences.

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Call SEMI SPECS/CHICAGO at
312/279-1000

NEW TAX BOOKLET

"The Engineer and Federal Taxes," a 44 page booklet containing an analysis of tax problems engineers can face, has been published by IEEE. The authors, Paul Opalack, CPA and Paul S. Richter, a tax and patent attorney both have engineering degrees. The author's intent is to "demistify" the inner workings of the IRS as they explain the Tax Reform Act of 1976, auditing processes including step-by-step advice on what to do if you are audited, and specific itemized deductions frequently available for engineers. To order "The Engineer and Federal Taxes" (UHO121-4) send \$3.00 (\$6.00 non-members) to IEEE Service Center, 445 Hoes Lane, Piscataway, N.J. 08854.

NUCLEAR PLANT TOUR

This is the first notice of an IEEE/Power Engineering Society sponsored tour of Commonwealth Edison Company's new LaSalle County Nuclear Generating Station in LaSalle, Illinois.

Presently the two tours scheduled will take place on Saturday, May 21, 1977 -- one in the morning and the other in the afternoon. The tours are limited to IEEE members only.

For tour reservations, call 236-4609. State your preference as to the morning or afternoon tour. An effort will be made to fulfill your preference providing that you make your reservation early.

MICROWAVE DIFFRACTION

The MTT/APS meeting on Tuesday, March 8 will have, as their speaker, Professor Robert G. Koujournjian. His topic will be "Applications of the Uniform Theory of Diffraction."

Professor Koujournjian is with the Department of Electrical Engineering, Ohio State University.

The meeting will be held at the Black Steer located at 6446 West North Avenue, Chicago. Social hour will begin at 6:00 P.M.; Dinner 7:00 P.M.; Meeting 8:00 P.M.

For reservations call the IEEE office on 236-4609.

COURSE ANNOUNCEMENT

MICROPROCESSOR SYSTEMS DESIGN

Offered By
Chicago Chapter of IEEE Computer Society,
Chicago Section of IEEE and Northwestern University
To Be Held At Northwestern University, Evanston, Illinois
4 Days — April 7, 14, 21, 28, 1977

This is intended to be a comprehensive course dealing with the design of systems incorporating a microcomputer. Application examples are taken from systems actually designed and built and will be discussed in detail. To allow individual interaction registration will be limited. This course is a repeat of the very successful course offered in both 1975 and 1976.

Session 1	Morning	Fundamentals of Microcomputer Systems
	Afternoon	Microprocessor Software
Session 2	Morning	Architecture of Typical Microprocessors
	Afternoon	Microprocessor Interface Techniques
Session 3	Morning	Design Considerations
	Afternoon	Application Examples
Session 4	Morning	Design Support Facilities
	Afternoon	Future Directions of Microprocessors

Fee — \$250 — includes course lectures, materials, texts, and luncheons

SPEAKERS

1. Dr. F. M. Brasch, Associate Professor, Departments of Electrical Engineering and Computer Sciences, Northwestern University; specialist in computer control and digital design.
2. Dr. W. J. Lennon, Assistant Professor, Department of Computer Sciences, Northwestern University; specialist in real-time computer systems and Director of Computer Sciences Research Laboratory.
3. Dr. M. J. Gonzalez, Assistant Professor, Department of Computer Sciences, Northwestern University; specialist in computer organization and distributed systems.

For further information contact: IEEE Office, 236-4609

Registration Form

Name: _____
Home Phone: _____ Business Phone: _____
Affiliation: _____ Address: _____
Mail to: IEEE
125 South Clark Street
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Registration deadline March 15, 1977
Make checks payable to:
Microprocessor Course 76