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CHICAGO SECTION • IEEE • INSTITUTE OF ELECTRICAL & ELECTRONICS ENGINEERS

FEBRUARY 1977

CALENDAR OF EVENTS

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

- Feb. 8 IEEE Executive Committee Meeting; Brown & Root Offices, 2001 Spring Rd., Oak Brook, Ill., 7:30 PM — ALL WELCOME.
- 9 VT Group. No information by deadline. Call meeting co-ordinator on 576-6567.
- 9 "Discussion of Current Practices & Requirements in the Installation & Testing of Cable," IAS/IECI, Nielsen's 7330 W. North Ave., Elmwood Park, Ill. Social Hour 5:30 PM.; Dinner 6:15 PM.; Meeting 7:15.
- 13 Theatre-Dinner Party, PES joint with Fox V. Sub., Candelight Dinner Playhouse, 5620 S. Harlem Ave., Summit, Ill. Dinner 5:45 PM; Show 7:30 PM.
- 15 "Analytical Aspects of Reflector Antenna Analysis & Design," MTT/APS, Black Steer, 6446 W. North Ave., Chicago, Ill. Social Hour 6:00 PM; Dinner 7:00 PM; Meeting 8:00 PM.
- 20-26 National Engineers' Week.
- 23 "Lithium/Metal Sulfide Load Levelling Batteries," PES, Midland Hotel, 172 W. Adams St., Chicago, Ill. Social Hour 11:00 AM; Luncheon 11:45 AM; Meeting follows.
- 23 "Key to the Future...Engineering," West Sub. Joint Engrng. Societies' Dinner, Luke's Rest., 331 E. Ogden, Westmont, Ill. Cash bar 6:30 PM; Dinner 7:00 PM.
- Mar. 2 "Hi-Cap Mobile Communications," Fox V. Sub. (j w/VT Grp. & Comm. Grp.), Downers Grove Inn, 1303 Ogden, Downers Grove, Ill.
- 8 IEEE Executive Committee Meeting; Brown & Root Offices, 2001 Spring Rd., Oak Brook, Ill., 7:30 — ALL WELCOME.
- 8 "Uniform of the Diffraction," MTT/APS, Black Steer, 6446 W. North Ave., Chicago, Ill. Social Hour 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 Vill., Ill. Social Hour 6:00 PM; Dinner 7:00 PM; Meeting 8:00 PM.
- 23 "Generator Water Cooled Stators & Rotors," PES, Midland Hotel, 172 W. Adams St. Chicago, Ill. Social Hour 11:00 AM; Luncheon 11:45 AM; Meeting follows.
- 29 or 30 "Reliability of Semi-Conductor Memories," Reliability Grp. Location to be annouced. Call the IEEE office for final arrangements.

Deadline for copy: One month before date of issue

ENGINEERS' WEEK

Key to the future - Engineering

This year's West Suburban Joint Engineering Societies' Dinner will be held on Wednesday, February 23.

Mr. Richard Eldredge, President of Eldrege Engineering Associates, Inc. will discuss solid waste control. He will describe the technological advances and the variety of disciplines which are playing

key roles in solving the problems of diminishing energy and material resources.

The dinner will be held at Luke's Restaurant, 331 East Ogden in Westmont, Illinois. A cash bar will open at 6:30 P.M. and dinner will be served at 7:00 P.M. for \$8.00 per person.

NW SUBSECTION

The Northwest Subsection will present a meeting on Wednesday, March 16 entitled "Television - where has it been; where is it at; where is it going?" Speaker will be Dr. Walter Ciciora, Section Manager, Zenith Radio Corporation. Dr. Ciciora is Chicago Section Chairman of the Consumers Electronics Group.

(continued on page 2)

Meeting locale is the Maitre D' Restaurant located in Elk Grove Village at 111 East Higgins Road. Social hour 5:30 PM; dinner 6:15 PM; meeting 7:15 PM.

Call the IEEE office on 236-4609 for reservations.

HIGH PERFORMANCE BATTERIES

If you have been anxiously waiting for details on the new efficient battery for your electric car, industrial plant or electronic calculator (Sanyo incorporates this battery in their latest model), be sure to attend the February 23 Power Engineering Society meeting - right after the 11:45 A.M. luncheon at the Midland Hotel in downtown Chicago. Oops - why not have a delicious luncheon too? (only \$6.50). Don't forget the social period at 11:00 A.M. - a cash bar will be available.

The guest speaker will be Albert A. Chilenskas, Manager of Commercial Development at the Argonne National Laboratory. He will cover the development and future of lithium/metal sulfide batteries. At Argonne lithium/metal sulfide batteries are being developed for energy storage on utility networks and for electric-vehicle propulsion. The present cells are vertically oriented, prismatic cells with a central positive electrode of FeS or FeS₂ and two facing negative electrodes of lithium-aluminum alloy, and an electrolyte of molten LiCl-KCl. The cell operating temperature is 400-450° C.

The program has advanced to the point where electrodes and cells, as well as other cell components, are being fabricated by several industrial firms under contracts with Argonne. These firms are also participating in development of fabrication methods that are amenable to mass-production. In this way, the technology will be available at an early date for production of batteries.

In cooperation with industrial firms, intensive efforts are being made to develop feedthroughs and electrode separators that meet performance and cost goals. Work is also being carried out on an improved design of a battery for energy storage on utility networks and on design and fabrication of other battery components, such as a system for equalizing the charge of battery cells.

Mr. Chilenskas, who has a B.S. in Chemical Engineering from the University of Illinois, has been engaged in research and development activities at Argonne National Laboratory for over twenty-five years. His experience covers design and

development of methods of nuclear fuel reprocessing and project management of hot-cell equipment design. More recently his work has been in the field of cell and battery design and development for the Chemical Engineering Division High-Energy Battery Program, where he is Manager of Chemical Development and group leader for Battery Engineering. Mr. Chilenskas has about 33 publications and 5 patents in the fields mentioned. He is a member of the Research Society of America, The American Nuclear Society and the Commercial Development Association.

REMINDER ... THEATRE-DINNER PARTY

Be sure to celebrate St. Valentines Day with the ladies at a dinner and show entitled "Saturday, Sunday, Monday" the Italian "Pasta" comedy. The play's colorful, bickering characters make up a typical Italian family with a bossy aunt, hammy uncle, old salty grandfather, tempestuous mama with a disgruntled jealous husband, and a handsome over-gallant neighbor. Their attempt at conversation is constant chatter, minimum understanding and gross exaggerations which all makes for a lovable family.

The play was written by Eduardo de Felippo, Italy's Neil Simon and it won London's Best Play of the Year Award. The Broadway production with Eli Wallach and Sada Thompson received rave reviews. DON'T MISS THIS VERY ENTERTAINING OCCASION!!!

Dinner will commence at 5:45 P.M. at the Candelight Dinner Playhouse at 5620 South Harlem Avenue, Summit, Illinois with the show starting at 7:30 P.M. The \$11.00 per person cost includes the dinner (choice of four menus - London Broil, Baked Chicken with Italian Herbs, Short Ribs of Beef, and Codfish), show, gratuities and tax. Refreshments and other menus are available at no extra cost.

Reservations should have been received by January 7, 1977 to insure availability. Those received later will be accommodated if possible. Make check payable to: Power Engineering Society and mail to

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Sargent & Lundy
Mail Code 26D27
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Chicago, Illinois 60603

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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.

FOCUS ON FAX

NATIONAL SCENE

You are certainly to all be complemented! Not necessarily for your choices but for your participation. You may like peanuts but that's only part of it. Nearly 80 million people turned out to vote and that exceeded even the most optimistic projections on voter participation. There are all kinds of theories on the long lines at the polls. They range from the nice weather to people being paid to get out and vote! The point is that they did and they did it unexpectedly. If anything was a major factor in the Carter victory, it most certainly was the high turnout. (You can't please everyone!!!)

If you haven't noticed yet, the man in the White House at this moment is quite an individual. He wasn't elected by the people; he did his very best anyway. He still wasn't elected by the people; he has shown a greatness and inner strength after his defeat which provides a lesson to us all. But American history continues to live on!

Indications are that Carter's transition team is making a major effort to move Jimmy E. into the White House. We have yet to see firm plans in the area of science and technology, but hopefully we'll be pleasantly surprised. Expect to see funding in the areas of energy research and vehicular technology. Carter will be looking to appease both the long term R & D community as well as the near term marketplace with energy impact developments. This entire area is crucial to the campaign commitment of implementing a National Energy Policy. This recent Presidential election also seemed to point out that the voters of America seem to remember. Lest us not forget that Carter is also a clever politician. However, he has moved up from the minor league in Georgia to the majors in Washington. The next six months should set the tone for his effectiveness. You can count on hearing more in this column.

- JFJ

GET THE CABLE MESSAGE

(POWER CABLES THAT IS)

What cables are UL listed? What are the latest NEC and OSHA regulations on cable installations? These and other questions will be covered in presentation by George Farrell of The Okonite Co. at the IAS/IECI meeting on February 9, 1977.

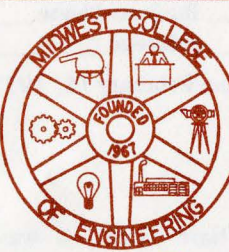
The talk will be supplemented with a slide presentation giving information on

insulation types and characteristics, and suggestions for selection and installation of new types of cable. Testing of installed cable will be covered and engineering data books will be furnished.

George Farrell, the speaker, is probably best known to the consulting EE's in the Chicago area for his classes on over-current protection, which he has conducted in the Chicago area for over 12 years. He attended Bradley University and has had a wide experience in the Electrical Engineering field, having had positions with a Utility Co., an Electrical Contractor, and doing Electrical Design work for the GSA, where he was responsible for the major revision to the electrical distribution system of the Chicago Main Post Office.

The meeting will be at Nielsen's Village, 7330 W. North Ave., Elmwood Park, Ill. Cocktails at 5:30 P.M., dinner at 6:15 P.M. The dinner and drinks are \$8.00, however you are welcome to attend the meeting even if you don't come for dinner.

For reservations phone the IEEE office 236-4609.



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1977 WASHINGTON AWARD

Michael Tenenbaum, president, Inland Steel Company, has been elected to receive the 1977 "Washington Award", one of the nation's most prized engineering honors.

The Award will be made to Tenenbaum at a banquet, Tuesday, February 22, in the Pick-Congress Hotel. Arrangements are being made by the Western Society of Engineers in behalf of six national engineering societies who select the recipient and co-sponsor the event.

Tenebaum, the 54th honoree of the Washington Award, is being recognized for distinguished achievements in the steel industry, and dedicated service in the interests of man's welfare.

The Washington Award is named for George Washington, an engineer and statesman. It was established in 1916 by the late John W. Alvord, one of the founders of Alvord, Burdick & Howson, Chicago.

Among the recipients who have received the Award are Herbert Hoover, Orville Wright, Henry Ford, Admiral H. G. Rickover, John D. deButts and David Packard.

The Award, made annually during National Engineers' Week, is conferred upon an engineer by fellow engineers for accomplishments which preeminently promote the happiness, comfort and well-being of humanity.

Selection of the awardee is made by a Commission representing the American Society of Civil Engineers, American Institute of Mining, Metallurgical and Petroleum Engineers, American Society of Mechanical Engineers, Institute of Electrical and Electronics Engineers, National Society of Professional Engineers and the Western Society of Engineers.

Tickets for the Award Banquet can be obtained from the Western Society of Engineers, 176 W. Adams St., Chicago.

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COURSE ANNOUNCEMENT MICROPROCESSOR SYSTEMS DESIGN

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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	Architecture of Typical Microprocessors
Session 2	Morning	Microprocessor Interface Techniques
	Afternoon	Design Fundamentals
Session 3	Morning	Application Examples
	Afternoon	Alternatives to Microprocessor Based Design
Session 4	Morning	Design Support Facilities
	Afternoon	Discussion of the Class Design Problem

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

SPEAKERS

1. Dr. B. W. Jordan, Jr., Associate Professor, Departments of Electrical Engineering and Computer Sciences, Northwestern University; specialist in digital system design and organizer of microcomputer courses.
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. F. M. Brasch, Assistant Professor, Departments of Electrical Engineering and Computer Sciences, Northwestern University; specialist in computer control and digital design.
4. 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
Room 1545
Chicago, Illinois 60603
Registration deadline February 15, 1977
Make checks payable to
Microprocessor Course 76

CONGRATULATIONS

-- to Carl G. Eilers and Edward F. Kancel, Jr., who are now Fellows in the I.E.E.E. We haven't the space to print all names of members elected January 1st to the grade of Fellow but Central Illinois did better and even Egypt has two new Fellows. Let's start beating the drums in this important Section of the IEEE and prepare filings for more of our engineers.

All the necessary forms are available at the IEEE office. Activate your brain -- think of one, two or ten candidates -- and call the office at 236-4609.

New MIDCON Convention Set

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

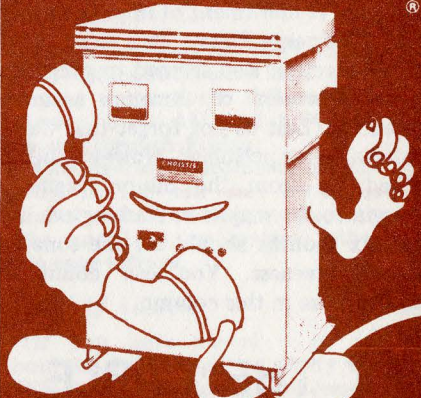
Hyatt Regency O'Hare Hotel, it was announced by David B. Pivan, chairman of the 12-man MIDCON board of directors.

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 convention 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.

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