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TIME SENSITIVE MATERIAL

CALENDAR OF EVENTS

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

Copy Deadline for April Scanfax is Feb. 24, 1986

MAR. 11	Monthly Meeting ALL WELCOME	IEEE Executive Cte.	Allen-Bradley Company 910 Pasquinelli Dr. Westmont, IL	Meeting	7:30 PM
12	"Reliability Considera. in Semiconduc. Tech."	Industry Appls./ Industl. Electronics Society	Mr. Peter's Restaurant 1018 Mount Prospect Rd. Mount Prospect, IL	Social Dinner Meeting	5:30 PM 6:15 PM 7:15 PM
12	"Security Lightning"	Power Engrng. Soc.	Carson Pirie Scott Wabash & Monroe Sts. Highland Rm., 8th Fl.	Social Lunch Meeting	11:30 PM 12 Noon 12:30 PM
12	Electrostatic Discharge	EMC Society	Bally Manufacturing 10601 West Belmont Ave. Franklin Park, IL	Meeting	7:30 PM
17	"Fiber Waveguides & Components for Optical Sensors"	Antennas & Prop./ Micro. Theory & Techniques Soc.	Louis Restaurant 351 E. Lake St. Addison, IL	Social Dinner Meeting	5:30 PM 6:30 PM 7:30 PM
18	"The 68020 Microprocessor"	Northwest Subsection (joint with Electron Devices Society)	Mr. Peter's Restaurant 1018 Mount Prospect Rd. Mount Prospect, IL	Social Dinner Meeting	6:00 PM 7:00 PM 8:00 PM
19	"Northwestern University Telecom. System"	Fox Valley Subsection	Wilton Manor 2200 Main St. Wheaton, IL	Social Dinner Meeting	6:00 PM 7:00 PM 8:00 PM
20	"GRAMCORD"	Computer Society (Reser., call John North at 510-4692)	Wilton Manor 2200 Main St. Wheaton, IL	Social Dinner Meeting	5:30 PM 6:30 PM 7:30 PM
22	Seminar - "Mfg., Appls. & Testing of Power Cables"	Power Engrng. Soc.	Wilton Manor 2200 Main St. Wheaton, IL	8:00 AM - 4:00 PM (See article in this issue)	
APR. 8	Monthly Meeting ALL WELCOME	IEEE Executive Cte.	Allen-Bradley Company 910 Pasquinelli Dr. Westmont, IL	Meeting	7:30 PM

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SCANFAX, (Publication) number (ISSN 0018-1297), March 1986 Volume 38, Number 7, SCANFAX is published monthly, except July and August by the Chicago Section Institute of Electrical and Electronics Engineers for the information of its members. Business Office is at 125 S. Clark St., Chicago, Illinois 60603, telephone number (312) 236-4609. Subscription rate for IEEE members collected in dues. \$1.50; for others, \$3.00 per year. Third class postage paid at Glen Ellyn, Illinois.

Unless otherwise specified, Chicago Section IEEE neither endorses nor sanctions any positions or actions espoused in SCANFAX.

Bob Hofmann, Editor
979-3627

James Carroll, Assoc. Editor
979-5824

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IEEE Office
(312) 236-4609

Change of Address

Send change of address to Roseann Schultz, Member Services, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 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.

REMINDER

IEEE RECOGNITION DINNER

**SATURDAY APRIL 12, 1986
AT THE WESTIN HOTEL O'HARE**

COCKTAILS - HORS D'OEUVRES - DINNER

FELLOW AWARDS - STUDENT AWARDS

ENTERTAINMENT - DANCING TIL MIDNIGHT

**ENTERTAINMENT: JIMMY DAMON SHOW AND
DICK JUDSON ORCHESTRA**

PLEASE ATTEND: WE COMMITTED IEEE TO 250-300 AS ATTENDING.

This 1986 Recognition Dinner is special as the Chicago Section will be honoring five Fellow Awardees and also Student Awardees from our local Universities.

Mail Reservations to: John E. Murray, Tickets/Arrangements Chairman, IEEE Recognition Dinner, Zenith Microcircuits Corp., Subsidiary of Zenith Electronics Corporation
1851 Arthur Ave.
Elk Grove Village, IL 60007-6066
(312) 956-1550

Enclosed is my check in the amount of \$_____ covering _____ tickets at \$30.00 each for the 1987 IEEE Recognition Dinner at the Westin Hotel O'Hare, Rosemont, IL.

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FIRM _____

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Make checks payable to: IEEE Recognition Dinner. Please mail by March 20, 1987

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HARDWARE ENGINEERS

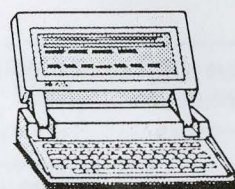
Positions involve digital and microprocessor circuit design for Industrial Robotic and Factory Automation equipment. Your background should include a BSEE and 3-6 years experience in microprocessor circuit development.

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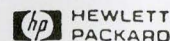
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DEADLINES

Scanfax Issues

April Issue	Feb. 24, 1986
May Issue	March 24, 1986
Mailing Dates	
April Issue	March 17, 1986
May Issue	April 15, 1986

NEW SENIOR MEMBERS

Region Four

James A. Cooper, West Lafayette, Ind.; George M. Thomas, Downers Grove, Ill.; Kenneth R. Lorell, River Fall, Wis.; Gerald B. Sheble, Plymouth, Minn.; S. Ganesan, Kalamazoo, Miss.



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CALENDAR OF EVENTS

Continued from page one

9	Student Night - "Computer Security Systems & Methods"	Industry Appls./ Industl. Electronics Society	Mr. Peter's Restaurant 1018 Mount Prospect Rd. Mount Prospect, IL	Social Dinner Meeting	5:30 PM 6:15 PM 7:15 PM
9	"Cogeneration - Utility Interface"	Power Engrng. Soc.	Carson Pirie Scott Wabash & Monroe Sts. Highland Rm., 8th Fl.	Social Dinner Meeting	11:30 AM 12 Noon 12:30 PM
12	"Techniques to Improve Heart Assist Devices"	Chicago Chapter of EMBS	Hyatt Regency 151 East Wacker Dr. Chicago, IL		
12	Recognition Dinner	IEEE Chicago Section (Inf./res. call John Murray at 956-1550)	Westin Hotel O'Hare 6100 River Rd. Rosemont, IL	Social Dinner Meeting	6:00 PM 7:00 PM 8:00 PM
30	"Fundamental Chemistry of Illinois & Synthetic Coal"	Fox Valley Subsection	Wilton Manor 2200 Main St. Wheaton, IL	Social Dinner Meeting	6:00 PM 7:00 PM 8:00 PM

PLACEMENT SERVICE

The Chicago Section is now offering a Placement Service for it members free of charge. The program is intended for those who are Member Grade and above and is a positive step to help our members who are unemployed. If interested in any of the applicants listed below, call the IEEE office (236-4609) for their name and phone number. If marked "confidential," the applicant will be contacted by the IEEE office so that he/she may contact the prospective employer.

- B13 — Entry level for MSEE in communication systems or AA.
- B14 — IIT (MSEE Comm. Theory) Student - desperately needs to be on the field.
- B15 — General Manager or Marketing Manager electrical equipment manufacturer.
- B16 — Computer Graphics Engineer - interactive systems, image synthesis, animation.
- B17 — Sales/Sales Mgmt Telecommunications - 28 yrs. telephony related experience.
- B18 — Test Engr./Production & Cust. Relations or teach new customers.
- B19 — General Management line or senior level staff - proven record - MSEE, MBA.
- B20 — Telecom product/service and other new product developments heavyweight.
- B21 — Qualif. BSEE T entry level posi.-exp. in field service/telecom equipment.
- B22 — Entry level posi.-exp. hdwe. digital analog control sys., look. for sales eng.

If you're an IEEE member and unemployed, call or write for the necessary form. Direct your request to: IEEE Placement Service • 125 S. Clark Street - Room 1545 • Chicago, Illinois 60603.

IN MEMORIUM

Abbas Hormozi 1943-1986

Abbas passed away on January 28, 1986. He was chairman of the Fox Valley subsection. He had also previously served as chairman in 1982. Abbas was an electrical project engineer with Sargent and Lundy and worked on various projects both in the U.S. and overseas.

He is survived by his wife Elizabeth and two sons, Erik and Brian. His wit and helping hand will be missed by all who knew him. Memorial donations may be sent to the: Division of Neurosurgery, Brain Tumor Research Study Center, Loyola University Medical Center, Maywood, IL 60153.

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REVISED PAYMENT SCHEDULE!

Instructions to New Applicants

IEEE membership dues, assessment, and fees for enrollment in the IEEE Societies and publication subscriptions are annualized to December 31. Depending upon the date your application is received by the IEEE, pay the full annual amount or one-half the annual amount as indicated below. Prices are subject to change without notice. Total Amount to be paid includes IEEE Annual Dues and regional assessment (if any).

Pay full Annual Amount when application is received by IEEE September 1 - February 28.

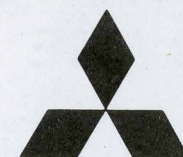
Pay half annual payment when application is received by IEEE March 1 - August 31.

Residence	Sept. 1 - Feb. 28 Pay Full Year Total Amount	Mar. 1 - Aug. 31 Pay Half Year Total Amount
United States	\$67.00	\$33.50
Canada	\$62.00	\$31.00
Africa, Europe, Middle East	\$59.00	\$29.50
Latin America	\$52.00	\$26.00
Asia & Pacific	\$53.00	\$26.50

Subscription to *Proceedings of the IEEE*
\$15.00 full yr., \$7.50 half yr.

Half Payment Provision. Applicants paying full annual amount on all items on the application (membership dues and fees for Society enrollment may remit payment of the total amount in two equal installments, the first payable with the application for membership. A reminder notice will be mailed for the second installment prior to July 1986.

Minimum Income Provision. A fifty percent reduction in IEEE dues and Regional Assessment, if any, is granted to an applicant for IEEE membership above Student grade who certifies that his/her prior year's annual income did not exceed \$5,000 (U.S. or Equivalent Funds). A member who qualifies under this provision may join one Society upon payment of one-half the established fee and additional Societies at regular fees. Those applying for this minimum income provision are requested to submit written certification with the IEEE application and appropriate payment.



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NORTHWEST SUBSECTION

JOINT MEETING

ELECTRON DEVICES SOCIETY

The 68020 Microprocessor

On Tuesday March 18, 1986 the Northwest Subsection and the Electron Devices Society will hold a joint meeting. Mr. Dave Paloian of Motorola technical training will talk about 68020 hardware architecture. The 68020 is Motorola's newest 32 bit microprocessor.

Date: Tuesday March 18, 1986

Place: Mr. Peter's Banquets
1018 E. Mt. Prospect Plaza
Rand & Central Roads
Mt. Prospect, IL

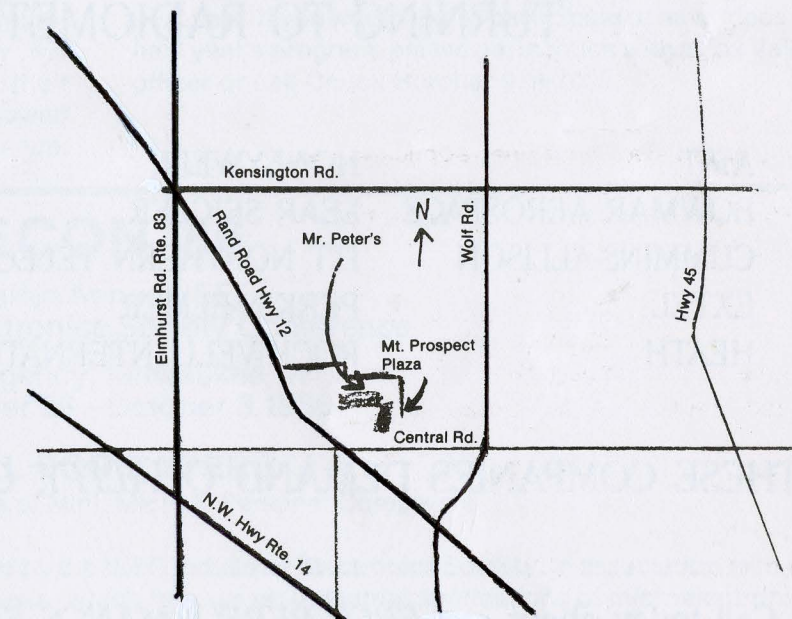
Time: 6:00PM Social Hour
Cash Bar

7:00PM Dinner \$11.00*
(*\$10.00 if reservation
is made on or before
Friday March 14)

8:00PM Meeting - All Welcome

Reservations: Call Eleanore at
Electrical Institute
(312) 236-4609

Information: Call Ron Vaickauski -
(312) 272-8800 X 2966



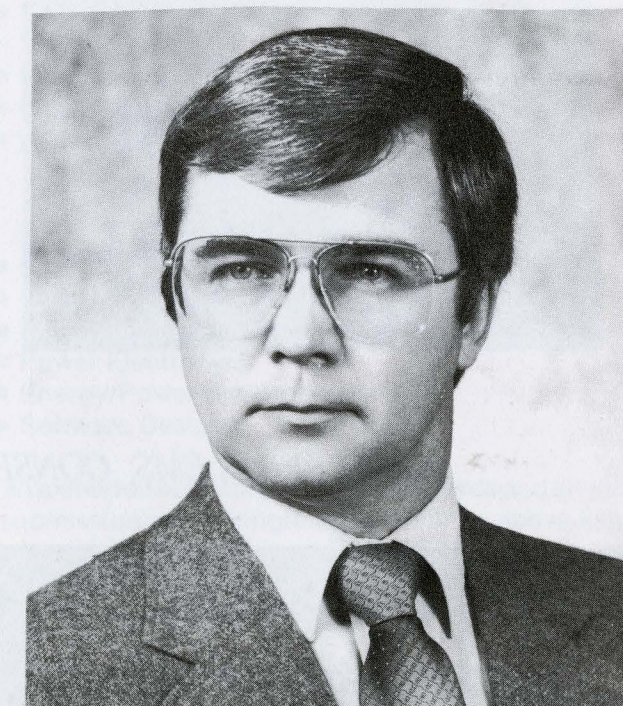
Stephen H. Palac Earns Associate Status

Stephen H. Palac, P.E., has been named an associate of Greely and Hansen, an international engineering firm specializing in water, wastewater and solid waste.

Palac, based in the firm's Chicago office, has served as electrical design manager and project coordinator for work performed in Illinois, Virginia, Michigan, Arizona, and Florida. Recently, Palac coordinated the study and design of a computerized control system for the Chicago Water Department's pumping stations.

A registered professional engineer in Illinois, Palac holds a B.S. degree in electrical engineering from Michigan Technological University.

Palac is a member of the Institute of Electrical and Electronic Engineers, and the Instrument Society of America.



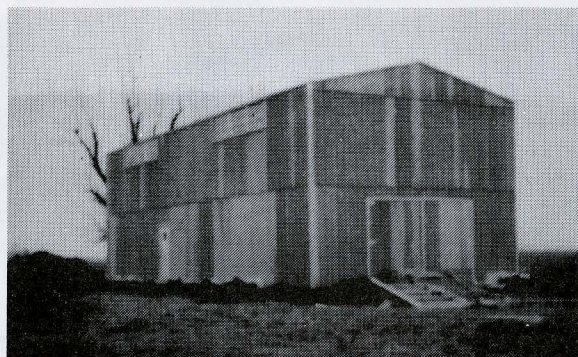
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FOX VALLEY SUBSECTION

NORTHWESTERN UNIVERSITY TELECOMMUNICATION SYSTEM

March 19, 1986

Wilton Manor Wheaton, IL

Dinner 7:00 PM - Meeting 8:00 PM

Northwestern University Telecommunications group will give a presentation on the internal telecommunications system they recently implemented. They will present the factors that led to the decision to design their own system and by-pass Illinois Bell. This will be followed by a description of the new system and its performance.

Fox Valley is beginning to put together its program for next year. If you would like to participate or have ideas for next year's program, please get in touch with a Fox Valley officer or call Chuck Borchert 979-7005.

IECON '86

Twelfth Annual IEEE
Industrial Electronics Society Conference

Hyatt Regency, Milwaukee, WI,
September 29 - October 3, 1986

CALL FOR PAPERS

Industrial Applications of Mini, Micro & Personal Computers

IECON'86 is an international conference sponsored by the IEEE Industrial Electronics Society, in association with the Society of Instrument and Control Engineers of Japan, which focuses on industrial applications of microelectronics, and particularly on the use of mini, micro and personal computers in the industrial environment. More than 30 countries have participated in past conferences. The main objective of the conference is to attract high quality papers on industrial applications. For 1986, special emphasis will be placed on the following topics:

- Expert Systems in Manufacturing
- Manufacturing Engr. Education
- Flexible Manufacturing Systems
- Factory Communications
- Personal Computer Applications
- Advanced Control Applications
- Robotics
- CAD/CAE/CAM/CIM
- Vision Systems
- Intelligent Sensors
- Graphics for Control/Monitoring
- High Level Control Languages

Papers are also welcome in the following areas:

- Automated Manufacturing/Testing
- Process Control
- Numerical Control
- Motion/Motor Control
- Instrumentation/Data Acquisition
- Industrial Signal Processing
- Distributed Control
- Programmable Control
- Computer Control
- Power Electronics
- Energy/Power Systems
- Software Design

To propose a paper, it is necessary to submit five copies of both an extended summary of 600-1200 words and an abstract of no more than 50 words. Each author should state on each submission which single topic from the above lists best describes the subject of that paper.

All authors should send the five copies of both the abstract and extended summary to:

Dr. Guy O. Beale, Vanderbilt University, Box 1698, Station B,
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& TECHNIQUES SOCIETY

IEEE

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

MARCH 1986 MEETING NOTICE

FIBER WAVEGUIDES AND COMPONENTS FOR OPTICAL SENSORS

BY: DR. RICHARD DYOTT

Date: Monday, March 17, 1986

Place: Louis Restaurant, 351 E. Lake Street,
Addison, Illinois
(First traffic light west of Route 83)

Time: Social - 5:30 p.m.
Dinner - 6:30 p.m.
Meeting - 7:30 p.m.

ABSTRACT

Fibers for sensors are designed to have very different characteristics from those used as transmission lines in long distance communications. The ability to hold polarization is important together with a geometry that is compatible with the construction of polarization-holding waveguide components such as directional couplers, polarizers, and phase modulators which, for instance, can together make up the fiber gyroscope. The subject has a lot in common with microwaves.

SPEAKER

Dr. Richard Dyott was born in Tientsin, China in 1924 and went to England in 1936. After serving in the Royal Navy, he obtained a Bachelor's degree in Electrical Engineering at London University and then joined the G.E.C. Research Laboratories, where he worked for many years on microwave tubes. In 1967, he joined the Post Office Research Department to lead research on optical fiber communications. He left in 1975 to work for Andrew Corporation on fiber sensors based at Imperial College, London. He came over to America in 1979 to establish the fiber project at the company headquarters in Orland Park. He is a Fellow of the IEE, Member IEEE, and has been awarded the degree of Doctor of Science by the University of London for work on optical fibers and applications.

The dinner is optional. A reservation is helpful even if you plan to attend the talk only. Reservations may be made by calling 236-4609 before noon on Friday, March 14, 1986. Non-IEEE members are welcome.

ENGINEERING IN MEDICINE & BIOLOGY SOCIETY

CHICAGO CHAPTER MEETING

On April 9, 1986 there will be an organizational meeting of the Chicago Chapter of the Engineering in Medicine & Biology Society. The objective is to provide interested persons with a forum for learning and to meet others who have a professional interest in biomedical and clinical engineering.

The Chicago Chapter meeting of EMBS precedes the 21st Annual Conference of the Association for the Advancement of Medical Instruments which begins April

12 at the Hyatt Regency Chicago located at 151 East Wacker Drive.

The first speaker will be Dr. Dov Jaron, President of EMBS and Director of the Biomedical Engineering & Science Institute at Drexel University. The topic of the talk will be "Techniques to Improve Heart Assist Devices."

Put this meeting down on your calendar and come to see how the Chicago Chapter of EMBS can help contribute to your professional growth and development.

AGE DISCRIMINATION

The IEEE maintains a task force on Age Discrimination under the United States Activities Board. This task force monitors proposed legislation within its area of interest. The basic law is the Age Discrimination Act of 1967

(ADEA). Under this act, as amended, an employee or prospective employee between the ages of 40 and 70 has the right to be free of the following unlawful practices on the basis of age:

1. Refused a job
2. Discharged or involuntarily retired;
3. Otherwise discriminated against in matters of compensation, terms and conditions or privileges of employment;
4. Limited, segregated or classified "In any way which would deprive or tend to deprive an individual of employment opportunities"; or
5. Receive reduced wage rate in order to comply with ADEA; or
6. Reprisal because of opposing practices made unlawful by ADEA

You may have seen some comments lately about employment ads that use the term 'recent graduate'. The penalties reported so far have not been great, but companies have been put on notice under this act.

If you feel you have been discriminated against, you must act quickly. The largest reason for lack of sustaining claims under ADEA is failure to follow the procedures in a timely manner. You must file a complaint with the Federal Equal Employment Opportunity Commission and in Iowa,

The Iowa Civil Rights Commission within 180 days of the discriminatory act.

For more information refer to "Age Discrimination In Employment - Crucial Decisions Affecting Careers", IEEE catalog no. UHO153-7; 1983. It is available from:

IEEE Service Center
445 Hoes Lane
Piscataway, NJ 08854

EMC Society Meeting

March 12, 1986, 7:30 PM
"Electrostatic Discharge"
Speaker - Hugh Hyatt

Bally Manufacturing
10601 West Belmont Ave.
Franklin Park, IL

Call Bob Hofmann at 979-3627

POWER ENGINEERING SOCIETY

Meeting Notice

Luncheon Meeting

Wednesday - March 12, 1986

SPEAKER: William A. Castic
National Marketing Manager
Lighting Division
Appleton Electric Company - Chicago, IL

TOPIC: Security Lighting

ABSTRACT: Mr. Castic will discuss preferred sources for security, preferred types of equipment for security lighting, how to apply that equipment, and lastly, a demonstration on what some of this type of equipment will do for the user.

ABOUT THE SPEAKER: Mr. Castic has a BSEE from the University of Illinois. He has been with Appleton Electric since 1976 and has worked in the lighting industry in the Chicago area since 1958. Some of his noted accomplishments are:

- Original development of 1500 watt operation of 1,000 watt metal halide lamps for sportlighting.
- Original work in control beam reflectors for 1,000 watt and 1,500 watt metal halide lamps, advisory capacity toward development in medium base low wattage high pressure sodium lamps.
- Work with double-ended 250 watt/400 watt HPS lamps and most recently, special development of hot restrike starters for high pressure sodium lamps.

LOCATION: Carson's Highland Room
Monroe & Wabash
Eighth Floor

Cocktails: 11:30 AM
Lunch: Noon
Meeting: 12:30 PM

Lunch is \$11.00. Please make reservations by March 10, 1986 by calling Eleanore Burda at 236-4609.

The date schedule for receipt of nominations for the various IEEE awards is:

Field Awards	before April 1, 1986
Medal of Honor	before July 1, 1986
Major Annual Medals	before July 1, 1986
IEEE Service Award	before July 1, 1986
Prize Paper Awards	before July 1, 1986



George Thomas receives a MIDCON director's pin from Jim Ralston, outgoing director and past Chairman of the Board for MIDCON. George replaces Jim as one of the two appointed directors from the Chicago Section. Paul Jahn is the other MIDCON director from our section. The installation of new directors was accomplished at the MIDCON annual meeting in November. Also at that meeting, John Lightner was installed as director replacing David Pivan as the appointment from Region 4. George Thomas, Jim Ralston and Paul Jahn are all former chairmen of the Chicago Section.

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People interested in attending this talk are commercial and industrial users of plastic IC's, defense applications

and quality assurance. An engineering experience is assured, but the presentation is not rigorously adhered to.

Speaker Professor Noshir Khory is head of a group at Motorola in their Semiconductor Technology Component Sector and has been at IIT the last eleven years.

The meeting date is March 12, 1986 at Mr. Peter's Restaurant in Mount Prospect. Social is 5:30, dinner 6:15 and the meeting 7:15 pm. Reservations must be made by noon on Monday, March 10. The cost is \$12.00 for IEEE members and \$13.00 for non-members.

SEMINAR

Manufacturing, Applications and Testing of Power Cables
Saturday, March 22, 1986
Turn to pg. 16 for details

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SEMINAR
Manufacturing, Applications and Testing of Power Cables
Saturday, March 22, 1986

POWER ENGINEERING SOCIETY — CHICAGO CHAPTER

Location: Wilton Manor, 2200 Main Street, Wheaton, Illinois

Registration Fee: Students — \$15; Members — \$50, Non-Members — \$65

Enrollment: Advance registration before March 20, 1986. Attendance will be limited. Participants are encouraged to register in advance by sending the attached registration form with payment fee.

Refund: Fee payment will be refunded if cancellation is received prior to March 21, 1986.

Notes: Will be provided by speakers where possible; no proceedings will be published.

Information: Contact Dr. S. M. Shahidehpour at (312) 567-5737.

Schedule

8:00 a.m.	Registration Wilton Manor 2200 Main Street Wheaton, Illinois	11:45 a.m.	Lunch
8:30 a.m.	Opening Session Dr. S. M. Shahidehpour Seminar Chairman Power Engineering Society Chicago Chapter	1:00 p.m.	Performance Criteria of Electric Cables for Nuclear Plants James Marth Utility Product Manager The Kerite Company
8:45 a.m.	Electric Cables: Materials and Construction Edward Walcott Senior Application Engineer Cablec Corporation	2:15 p.m.	Coffee Break
10:00 a.m.	Coffee Break	2:30 p.m.	Field Testing and Fault Locating of Power Cables Larry Fortier President Fortier Testing & Sales Co.
10:15 a.m.	EPR Insulation for Medium-Voltage Cables Larry Kelly Director of Solid Dielectric Cable Engineering The Okonite Company	4:00 p.m.	Adjourn

ADVANCE REGISTRATION

Please type or print

Name _____

Position/title _____

Company _____

Address _____

City _____ State _____ Zip _____

Telephone Number _____

IEEE Member No. _____

Please mail check for the registration fee (payable to Chicago Section, IEEE) and this registration form to:

S. M. Shahidehpour
Electrical Engineering Department
Illinois Institute of Technology
3301 S. Dearborn Street
Chicago, IL 60616