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Glen Ellyn, Illinois

Official Publication of the Chicago Section • Institute of Electrical & Electronics Engineers • May 1987

TIME SENSITIVE MATERIAL

CALENDAR OF EVENTS

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

Copy Deadline for June Scanfax is April 27, 1987

MAY 6	"Southwest Transit Line to Midway Airport"	Power Engineering Soc.	Carson Pirie Scott Wabash & Monroe Sts. Highland Rm., 8th Fl.	Social 11:30 AM Lunch 12 Noon Meeting 12:30 PM
7	"Productivity of Technical Resources"	Engrng. Management/ Profes. Comms. Soc. (joint w/ASEM)	Golden Ox Rest. 1758 N. Clybourn Chicago, IL	Social 6:00 PM Dinner 6:45 PM Meeting 7:45 PM
12	Monthly Meeting ALL WELCOME	IEEE Executive Cte.	Allen-Bradley Company 910 Pasquinelli Dr. Westmont, IL	Meeting 7:30 PM
20	"Introduction to Information Technology"	Indus. Appls. Soc./ Industl. Elecns. Soc. (j/w Computer & EMBS)	Lachman Associates, Inc. 1901 N. Naperville Rd. Naperville, IL	Social 6:00 PM Dinner 7:00 PM Meeting 8:00 PM
20	"Medical Electronics"	Northwest Subsection	Mr. Peter's Restaurant 1018 Mt. Prospect Ave. Mount Prospect, IL	Social 6:00 PM Dinner 7:00 PM Meeting 8:00 PM
20	"Integrated Services Digital Networks"	Communications Society	AT&T-Bell Labs Naperville & Warrenville Rds. Naperville, IL	Meeting 7:00 PM
20	"Practical Aspects of Shielded Enclosures"	Electromagnetic Compatibility Society	Empress Rest. 192 E. Lake St. Addison, IL	Buffet 7:00 PM Meeting 8:00 PM

(continued on pg. 2)

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-ADV-

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

Bob Hofmann, Editor
979-3627

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979-5824

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(312) 236-4609

Change of Address

Send change of address to Roseann Schulz, Member Services, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854-4150.

Include your SPECTRUM mailing label if possible. We cannot forward this information for you, so please do not send it to the local office.

SCANFAX DEADLINES

ISSUE	COPY DUE	MAILED ON
JUNE	APR. 27	MAY 15
SEPT.	JULY 27	AUG. 15
OCT.	AUG. 31	SEPT. 15
NOV.	SEPT. 28	OCT. 15
DEC.	OCT. 26	NOV. 15

CALENDAR OF EVENTS

(continued from pg. 1)

21	Annual Banquet & Election Night	Reliability Society	Midway Motor Lodge 1600 Oakton St. Elk Grove Village, IL	Social Dinner Meeting	6:00 PM 6:30 PM 7:30 PM
27	"Holography: Introduction & State of the Art"	Fox Valley Subsection	Wilton Manor 2200 Main St. Wheaton, IL	Social Dinner Meeting	6:00 PM 7:00 PM 8:00 PM

(continued on pg. 3)

IEEE COMMUNICATIONS SOCIETY CHICAGO SECTION

TIME: MAY 20, 1987
7:00 PM

PLACE: AT&T Bell Laboratories
Naperville

TOPIC: Integrated Services Digital Networks (ISDN)

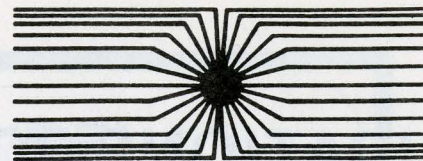
The Integrated Service Digital Network (ISDN) is rapidly becoming the basis of general-purpose networks supporting voice and non-voice services. A representative from the Intel Corp. will discuss the protocol adopted for the ISDN, the uses for the ISDN, and how an ISDN can be constructed using the Intel chip set.

For reservations, call Eleanore Burda at 236-4609.

CALENDAR OF EVENTS

(continued from pg. 1)

JUNE 9	Monthly Meeting ALL WELCOME	IEEE Executive Cte.	Allen-Bradley Company 910 Pasquinelli Dr. Westmont, IL	Meeting	7:30 PM
10	"Power Line Noise"	Industry Appls. Soc./ Industrial Electronics Society	Mr. Peter's Restaurant 1018 Mt. Prospect Ave. Mount Prospect, IL	Social Dinner Meeting	5:30 PM 6:15 PM 7:15 PM



IEEE Holm Conference on Electrical Contacts

DATE: September 21-23, 1987

PLACE: The Palmer House, Chicago, Illinois (Special Rates for Attendees)

TECHNICAL PROGRAM:

Over 30 Technical Papers on the latest contact technology Plus Three Special Session in-depth Workshops:

Electrical Connector Session Topics: Lubricant Testing, Surface Treatments Including Ion Beam, Fretting Corrosion of Tin Plated Connectors, Comparisons of Materials for Contact Resistance Failures.

Environmental Test Procedure Topics: Mixed Gas Testing, Connector Dust Test, Surface Film Creep Studies.

Arcing Contact Topics: Arc Energy Transmission, Motion of Magnetically Driven Arcs, Silver Metal Oxide Erosion Mechanisms, Contact-Weld Phenomena, New Materials, New Bonding Process, Review of European Arcing Contact Designs.

Aluminum Connector Topics: Plated Aluminum Wire for Branch Circuits, Nickel Plated Wire Investigation, Fretting Damage of Tin Plated Connectors.

Sliding Contact Topics: Unique Session exclusively devoted to Sliding Contact Papers. Includes both Instrument and Power Slip Ring Assemblies and Sliding Switch Devices. Contacts include Liquid Metal, Liquid Metal Wetted, Noble Metal and Composite Brushes.

PLUS THREE SPECIAL SESSION WORKSHOPS:

Automotive Connectors Workshop: Application, Testing, and Design for Automotive Connectors.

Environmental Effect Corrosion Workshop: A panel discussion of various International Testing Standards.

Standards for Testing Low Voltage Devices: A discussion of current and future standards for Testing Circuit Breakers and Contactors.

PURPOSE: To provide a forum for the presentation and discussion of the latest findings and developments in the field of electric contacts.

FOR WHOM: Practicing designers, engineers, physicists and research scientists - those new to the field and those experienced.

COMPLETE PROGRAM: This summer, a second announcement including the complete technical program, will be distributed. If you would like additional information or want your name placed on the mailing list, contact the IEEE Holm Registrar at (212) 705-7405 or write to the address below.

REGISTRATION:	Advance Registration (before September 4, 1987)	IEEE Members	\$200
		non-IEEE Members	\$235
	Registration at Conference	IEEE Members	\$225
		non-IEEE Members	\$260



IEEE Components, Hybrids, and Manufacturing Technology Society, 345 East 47th Street, New York, N.Y. 10017 U.S.A.

IEEE EMC SOCIETY MEETING

DATE - WEDNESDAY MAY 20, 1987

LOCATION - EMPRESS RESTAURANT - WEST OF ROUTE 83 AT
192 EAST LAKE STREET IN ADDISON

TIME- 7:00 P.M. COLD BUFFET

8:00 P.M. TALK

SUBJECT- PRACTICAL ASPECTS OF SHIELDED ENCLOSURES

SPEAKER - BILL CURRAN, SR. OF LINDGREN

RESERVATIONS REQUIRED - CALL WALLY PILAT AT 960-8587
NO LATER THAN MAY 15

Technical Seminar SCIENTIFIC COMPUTING WITH THE HYPERCUBE

In 1985, Intel introduced a hypercube, a medium grained parallel computer for scientific computing. The Intel hypercube supports 128 parallel processors, and is based on the "Cosmic Cube" of Cal-Tech. The system was recently enhanced for Artificial Intelligence (with the addition of Gold Hill LISP) and Numeric Processing (with a vector processor for each node).

The seminar leader is Joe Brandenburg, of the Applications Research Group of Intel Scientific Computers. Dr. Brandenburg has held faculty positions in math and computer science at Portland State University and George Mason University. He is actively involved in both numeric and symbolic processing on parallel computers, and leads the research at Intel on Artificial Intelligence on the hypercube.

To register, simply call the local Intel office at 312-310-8031. No charge, but reservations are limited. For more information, call Daryl Gerke at Intel/Minneapolis at 612-835-6722. Unable to attend? Call 612-835-6722 for technical brochures.

AGENDA

- Parallel Computer Architectures
- Programming Parallel Machines
- Sample Applications
- Lunch
- Hands On Demonstrations

LOCATION

Wednesday, May 13

Hilton Inn —
Lisle / Naperville
3003 Corporate West Drive
Lisle, IL

9 A.M. - 4 P.M.

Afternoon demos
are optional

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International Conference on Communications

June 12-15, 1988

Wyndham Franklin Plaza Hotel—Philadelphia
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IEEE COMMUNICATIONS SOCIETY

"Digital Technology Spanning the Universe" CALL FOR PAPERS

Authors

You are invited to submit an original paper for consideration to be presented at the 1988 International Conference on Communications to be held on June 12-15, 1988, at the Wyndham Franklin Plaza Hotel-Phila. Please note the Schedule and Instructions below.
We welcome your participation and look forward to meeting you in "one of the most dynamic cities in the world"—Philadelphia, Pa.

Schedule

Complete Manuscript due
Notifications of Acceptance mailed
Camera-ready copies due

September 1, 1987
February 1, 1988
March 13, 1988

TOPICS OF SPECIAL INTEREST

1. OPTICAL TECHNOLOGIES, SYSTEMS AND NETWORKS
 - opto-electronics, photonics, switching
 - components
2. INTELLIGENT NETWORKS
 - technology, software, common channel signaling, loop systems, operations
3. DATA COMMUNICATION TECHNIQUES, SYSTEMS AND NETWORKS
 - LAN, MAN, WAN
 - voice/data integration
 - internetwork interfaces (eg., PSDN to ISDN)
4. RADIO SYSTEMS AND NETWORKS
 - vehicular, portable, indoor
 - satellite for mobile maritime and aeronautics
5. OPERATIONS, PERFORMANCE AND QUALITY

Instructions

The title page should include the author's name, complete return address, phone, telex and telefax numbers, appropriate topic name and number shown above, and abstract (100 words). All other pages should bear the title of the paper and the author's name. Manuscript must be limited to 3,000 words. Page charges will be assessed for camera ready copies exceeding 5 pages. **Six** double-spaced copies in English must be sent to the **ICC '88 Technical Program Chairman**. Also, **one** copy must be sent to the appropriate **regional representative** shown below. Please make plans to participate in ICC '88.

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American Society for Engineering Management

CHICAGO SECTION

JOINT MEETING NOTICE

AMERICAN SOCIETY FOR ENGINEERING MANAGEMENT - CHICAGO SECTION
IEEE ENGINEERING MANAGEMENT/PROFESSIONAL COMMUNICATION CHAPTER

"Productivity of Technical Resources" -- Keith McKee

Keith McKee is Director of the Manufacturing Department at the IIT Research Institute (IITRI), Director of IITRI's Manufacturing Productivity Center, and Adjunct Professor at IIT's Stuart School of Business.

His talk will focus on the two roles that engineers can play in improving productivity:

Improving products and processes
Improving the engineering function itself

Date: Thursday, May 7, 1987
Place: Golden Ox Restaurant, 1578 N. Clybourn
Time: Socialize - 6:00 PM
Dinner - 6:45 PM (Order from the menu)
Talk - - 7:45 PM

For reservations, phone Eleanore Burda at Scanfax (236-4609) by Tuesday, May 5, at 4:00 PM.

For further information, call Leslie R. Axelrod at 295-7350 or John Horwath at 827-3131.

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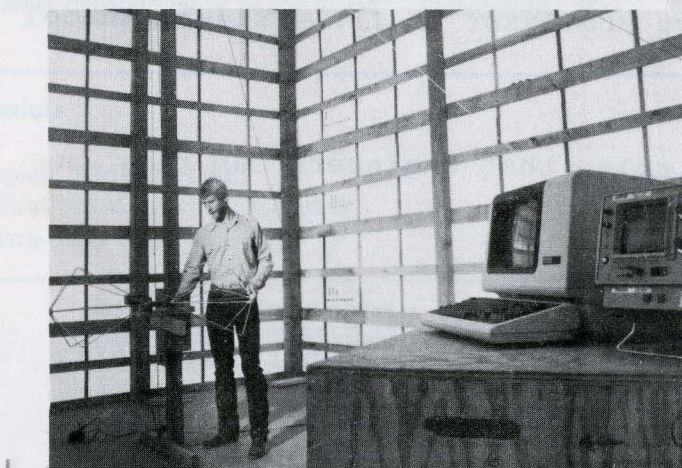
D.L.S.'s Genoa facility has been expanded to include a second test site. The site was carefully chosen because of the low ambient level of RF energy and because it meets the requirements of FCC Bulletin Ost 55. In addition, significant improvements have been made to our original all-weather test building. It is now totally climate controlled incorporating heating and air conditioning. We have also increased our electrical service so that we can continue to provide complete, professional testing to meet your growing demands.

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INFORMATION TECHNOLOGY MEETING

Presented by
Mary Ann Palma, DIALOG Information Services, Inc.
Wednesday - May 20, 1987

JOINTLY SPONSORED BY THE FOLLOWING IEEE CHICAGO TECHNICAL SOCIETIES:

Industry Applications Society — Industrial Electronics Society
Computer Society
Engineering, Medicine, and Biology Society

TOPIC:

Using Online Databases to Explore New Technologies and New Product Ideas

This presentation will provide an introduction to the sources of engineering information available from online databases. The focus of this discussion will be on the databases covering the areas of computers, electronics, and biomedical engineering. The use of such databases to plan and to research projects, track technological breakthroughs, and search for applications of new technology will be highlighted.

The presentation will conclude with an online demonstration in which the DIALOG system will be used to answer questions from the audience. The DIALOG system currently provides access to over 250 databases covering every imaginable subject discipline.

Mary Ann Palma is an independent information consultant currently working DIALOG Information Services, Inc. in the design, testing, and promotion on their technical and patent databases. Mary Ann has been working in the online industry for over 9 years. Previous experience includes working as an information scientist at Amoco Research Center in Naperville, Illinois, and as a systems analyst for DIALOG at their headquarters in Palo Alto, California.

LOCATIONS:

Dinner: Old Peking Restaurant, 1563 Naperville Road, Naperville

Meeting: Lachman Associates Inc. (LAI), 1901 N. Naper Blvd., Naperville

The meeting will be held at Lachman Associates Inc., who is graciously allowing us to hold our meeting there so that we can use their data communications, data terminal and monitoring facilities.

SCHEDULE OF EVENTS:

6:00 (Cash Bar)	Meet at Old Peking Restaurant for social hour and
7:00 (Dinner)	Family Style Oriental Dinner
8:00 (Meeting)	Adjourn to nearby Lachman Associates facilities

Please make reservations with Eleanore Burda, IEEE office, 236-4609 no later than Wednesday, May 13, 1987. Specify whether you are attending the meeting only, or both dinner and meeting. Cost of the dinner is \$13.00 per person, including tax and gratuity.

NORTHWEST SUBSECTION

Date: May 20, 1987

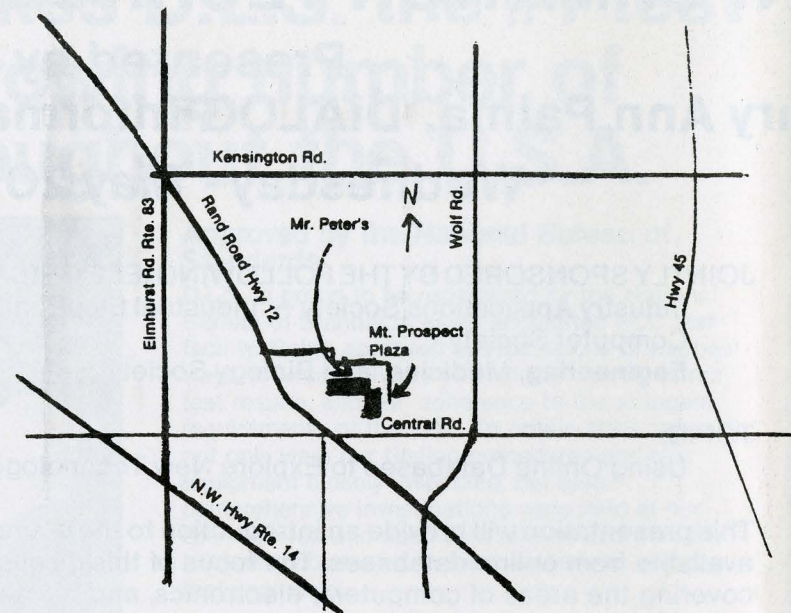
Place: Mr. Peter's Banquets
1018 E. Mt. Prospect Plaza
Rand & Central Rds.
Mt. Prospect, IL

Time: 6:00 PM Social Hour
Cash Bar

7:00 PM Dinner

8:00 PM Meeting - All Welcome

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



TOPIC: A Rehabilitation Genesis: Imbedded Microprocessors To Aid The Handicapped

SPEAKER: Charles J. Robinson

Dr. Robinson will describe how microprocessors are being used to help disabled persons in the tasks of daily living. He will describe current applications that are now in research labs and which might be commercially available within the next several years. These devices are used to aid in hearing, seeing, motor control, etc.

They can replace broken links to the muscles of persons with spinal cord damage, for example. They can stimulate sensory nerves to provide a substitute auditory stimulation for hearing-impaired individuals. Chips can even be used to scan the areas in front of blind persons, to warn of objects that may overhang the path the person is taking.

Dr. Robinson holds a D.Sc degree and is a registered professional engineer in Illinois. He is a biomedical engineer and neurophysiologist, and currently holds the position of associate director at the rehabilitation research and development center of the Hines US Veterans Hospital. He is a member of the IEEE.

ATTENTION IEEE MEMBERS

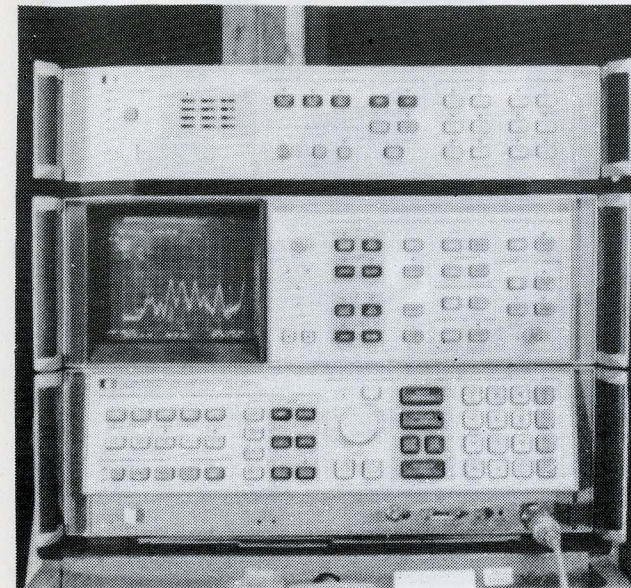
Meet new people. Make new friends. Help Midcon/87 be a success for IEEE. Join the Midcon **Inner Circle**.

When Midcon returns to Chicago, September 15-17, its success will depend largely on active support from IEEE members and their colleagues. You can help ensure this success by joining the Midcon Inner Circle, the select group of volunteers who make show information and discount registration cards available to their co-workers and technical associates.

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PLACEMENT SERVICE

The Chicago Section is now offering a Placement Service for its 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.

- B65 — Graduate Electrical Engineer- industrial power system plant and machines.
- B66 — Test/Software Engineer - HP Basic, Fortran; C & UNIX; BSEE pursuing MS at UIC.
- B67 — Sr. Project Engr. - elect/electronic controls - medical/dent/industl. - BSEE.
- B68 — Elec. Engr. Mgr. - 19 yrs. high-tech mil systems, exp. includes servo controls.
- B69 — Engrng. Mgr. w/exp. in product mngmnt of computer related telecommunications prods.
- B70 — Sr. Electl. Proj. Engr. - nuclear & fossil power all aspects inc. I & C.

- B71 — Power gen. & dist system - engrng, const, comm. - 16 yrs. exp. as Sr. Lead Engineer.
- B72 — Production mass media BA in communications camera operator.
- B73 — Engr. Mgr. - micro & digital, control sys. & networking experience.
- B74 — BEE, CQE, CRE, (ASQC) exp. - seeking QA position.
- B75 — Bioengineer - MS-UIC, bioinstrumentation, signal analysis.
- B76 — BSEE - looking for entry level position in electrical engineering.
- B77 — BSEE - entry level position in communication field.
- B78 — BSEE - entry level position in electrical and electronic engineering.
- B79 — BSEET - entry level position in field service or in house - excel. comm. skills.

If you are 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.



Pictured at the Feb. 11, 1987 joint meeting of the Chicago chapter of the IAS/IES and Northwest subsection are, left to right:

Len Cohen, vice-chairman, Northwest subsection; Barry Brusso, chairman IAS/IES chapter; Martin Lenow, guest speaker from Digital Equipment Co.; Erwin Plofsky, program chairman, IAS/IES; Howard Meyers, chairman, Northwest subsection; Scott Sundell, secretary, Northwest subsection

Mr. Lenow, a Senior Computer Integrated Manufacturing consultant with Digital Equipment Company spoke on "Factory Automation - The Paperless Factory."

SECTION MEMBER HONORED

James B. Owens, Chicago section member, has been selected as the recipient of the 1987 IEEE Founders Medal by the IEEE Board of Directors with the following citation:

"For exemplary and inspirational leadership, distinguished service, and administrative excellence in electric power engineering and the electrical engineering profession."

Mr. Owens obtained a B.S. degree in Electrical Engineering from Rice University in Houston, Texas in 1941. During World War II he worked as a designer for the Westinghouse Electric Corp. designing radar equipment. In 1954, he joined the I-T-E Circuit Breaker Co. and held positions of Vice-President - Engineering, and President - Power Engineering Group. When Gould merged with I-T-E, Owens became Vice-President, and later President of Gould-Brown Boveri.

Mr. Owens is a fellow of the IEEE and has served the Institute in many positions including President of the Power Engineering Society and Institute President (1983). He has served as a director of the Power Equipment Division of NEMA, has served on ANSI committees, has served on the US Committee of CIGRE, and has been a member of US delegations to the IEC.

In 1984, he joined Packer Engineering Associates in Naperville, where he is a Vice-President and Director. He and his wife Bette live in Lake Forest.

IEEE FOX VALLEY SUBSECTION

Topic: Holography
Wednesday, May 27, 1987
Holography: Introduction and State of the Art

On Wednesday, May 27, 1987, the Fox Valley Subsection will hold a dinner meeting at which F. B. McCormick will speak on holography. Holography is most commonly known for striking 3-dimensional images, such as the eagle and ancient skull images that have appeared on recent National Geographic magazine covers, or the dove image on many new VISA credit cards. Holography ("holo"=whole "graph"=writing) differs from photography in that it not only records the amplitude of an image wavefront, but also the wavefront's phase. The use of holographic techniques has experienced an upswing in recent years due to advances in its own and related technologies. This presentation will provide a general overview of holographic theory, optical and computer generation techniques, as well as discussions of state of the art applications in 3-dimensional displays, dynamic holography, optical information processing, and holographic optical elements and interconnection networks. Due to time constraints and author interest, microwave and acoustic holography, as well as the many innovative industrial applications of holographic interferometry (non-destructive testing using holography to detect changes) will not be covered. Some optically generated holograms will be displayed.

F. B. McCormick is a Member of Technical Staff at AT&T Bell Laboratories, Naperville, Illinois, which he joined in 1982. Initially, he worked on the 5ESS™ Switch. For the last 3 years, he has been investigating holographic interconnection networks for the Photonics Switching Technologies Group. Mr. McCormick holds a B.S. in Electrical Engineering from the University of Washington (Seattle) and a M.S. in Electrical Engineering from the Georgia Institute of Technology (Atlanta).

Place: Wilton Manor

Location: 2200 Main Street
Wheaton, IL
(See Map)

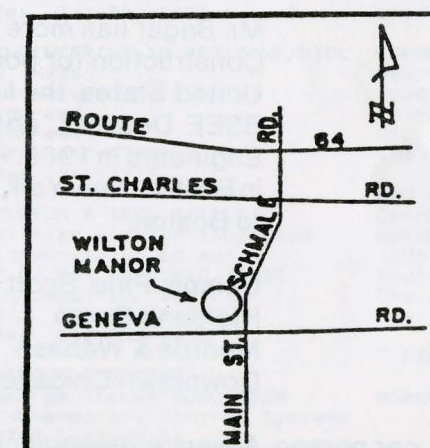
Time: Cocktails - 6:00 p.m.
(Cash Bar)

Dinner - 7:00 p.m.

Meeting - 8:00 p.m.

Dinner Reservation:

Due to the Memorial Day holiday,
call (312) 236-4609 prior to Friday, May 22, 1987



POWER ENGINEERING SOCIETY

Meeting Notice

LUNCHEON MEETING

Wednesday, May 6, 1987

SPEAKER:

Navin S. Sagar, P.E.
Manager, Systems Engineering
Kaiser Engineers, Inc. - Chicago, IL

TOPIC:

Chicago's Southwest Rapid Transit Project - Loop to Midway Airport

ABSTRACT:

The Southwest Transit Project consists of 9.3 miles of rapid transit line connecting the Downtown Loop with Midway Airport. The project will consist of trackwork, eight passenger stations, vehicle storage yard, and a maintenance shop. The systemwide work will include six traction substations, tie station, auxiliary and traction power supply system, SCADA, train control and communications elements. The selection and integration of systemwide design parameters will be discussed.

Mr. Sagar will highlight the design management approach and acquaint us with the status of the project

ABOUT THE SPEAKER:

Mr. Sagar has more than 15 years of experience in Engineering and Construction for power transportation and industrial projects in the United States, the Middle East and Asia. He holds MBA, MSEE, and BSEE Degrees, and is a Senior IEEE member. He joined Kaiser Engineers in 1985. Prior to this he worked on transportation projects in Boston, New York, Philadelphia, Dayton, San Diego and Washington to Boston.

LOCATION:

Carson, Pirie, Scott & Co.
Highland Room
Monroe & Wabash
Downtown Chicago

Cocktails: 11:30 AM
Lunch: 12:00 Noon
Meeting 1:00 PM

Lunch is \$11.00 per person. Advance reservations should be made by calling Eleanore Burda at 236-4609. For further information contact John Whelan at Klockner-Moeller at 593-0980.

1986-1987 CHICAGO SECTION ORGANIZATION DIRECTORY THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

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