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Official Publication of the Chicago Section • Institute of Electrical & Electronics Engineers • JANUARY 1992



TIME SENSITIVE MATERIAL

CALENDAR OF EVENTS

For reservations please call IEEE Office at (708) 963-3828 before the stated deadline
Copy Deadline for February SCANFAX is December 20, 1991

January 13 & 14 Monday & Tuesday	Chicago Section and The Lendman	IEEE Employment IEEE Job Fair	Embassy Suite Hotel 707 East Butterfield Rd. Lombard, Il.	Call for for Details (800)562-2820
January 14 Tuesday	Chicago Section	Executive Committee	Contemporary Controls 2500 Wisconsin Downers Grove, IL	Meeting: 7:15 PM
January 15 Wednesday	Power Engineering Society	Spent-Fuel Management Strategies in the United States	Chicago Bar Association 321 S. Plymouth Court Chicago, IL	Social: 11:30 AM Dinner: 12:00 Noon Meeting: 12:30 PM
January 15 Wednesday	Communications Society	Trials and Tribulations of Starting a Technology-based Company	Sharko's Restaurant 22225 Ogden Ave. Lisle, Il.	Social: 6:00 PM Dinner: 7:00 PM meeting: 8:00 PM
January 16 Thursday	EMC Society	RF Gaskets: Types, Shielding Effectiveness & Mechanical Considerations	AT&T Bell Laboratories 2000 N. Naperville Rd. Naperville, Il.	Social: 7:15 PM Meeting: 7:30 PM
January 23 Thursday	LEOS	Diffraction Optics in Photonic Switching & Computing Systems	AT&T Bell Labs/Sharko's Restaurant 2225 Ogden Ave. Lisle, IL.	Tour: 5:30 PM @ AT&T Dinner: 7:00 PM @ Sharko's Meeting: 8:00 PM
January 28 Tuesday	Fox Valley Subsection/ Engineering Management Society	Technology transfer & U.S. Competitiveness	Wilton Manor 2200 N. Main St. Wheaton, Il.	Social: 6:00 PM Dinner: 7:00 PM Meeting: 8:00 PM
January 29 Wednesday	Computer Society	Tour: IDOT Traffic Systems Center	IDOT Center 445 Harrison St. Oak Park, Il	Tour: 6:00 PM

Message From the Editor

To better meet the needs of the Chicago Section for current Section information, we are asking that each member note the date that each issue of SCANFAX arrives. If SCANFAX arrives late, i.e., after the first of the issue month, then contact the IEEE Chicago Section Business Office to log the complaint. Please leave your name, your address and zip code, as well as any pertinent information concerning the delivery of SCANFAX. We are especially interested in members who receive SCANFAX late or not at all.

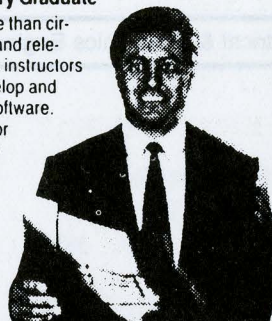
JIM CARROLL, EDITOR

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Elmhurst College Announces a Course in C++ for the Software Professional



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Tuesday, Wednesday, Thursday
January 14, 15, 16, 1992
9:00 a.m. - 4:00 p.m.

For additional information, call or write:

**ELMHURST
COLLEGE**

Office of Continuing Education
190 Prospect Avenue
Elmhurst, Illinois 60126-3296
(708) 617-3300

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

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Send change of address to Roseann Schulz, Member Services, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854-4150. Include your SCANFAX mailing label if possible or phone direct to: 1-800-678-4333. We cannot forward this information for you, so please do not send it to the local office.

SCANFAX DEADLINES

ISSUE	COPY DUE	MAILED ON
FEB	DEC 20	JAN 15
MAR	JAN 28	FEB 15
APR	FEB 25	MAR 15
MAY	MAR 25	APR 15
JUNE	APR 28	MAY 15

THESE ARE FIRM DEADLINES FOR ADS AND COPY!!!

CONGRATULATIONS TO THE FOLLOWING WHO HAVE ADVANCED TO SENIOR MEMBER

AMBURGEY, OVA G	ATKIN, GUILLERMO E
BEHERA, ANUP K	CAPOUCH, EDWARD A
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FANCHER, J.R.	GOEL, RAJEEV K
GOSHTASBY, ARDESHIR	GRAHAM, JAMES L
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SCHMUNK JR, E W	TROYK, PHILIP R
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TECHNICAL CAREER FAIR

Sponsored by

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IEEE JOB FAIR

Monday, January 13, 1992

and

Tuesday, January 14, 1992

3:00 p.m. to 8:00 p.m. each day

Embassy Suites Hotel - Lombard/Oak Brook

707 East Butterfield Road
Lombard, Illinois 60148

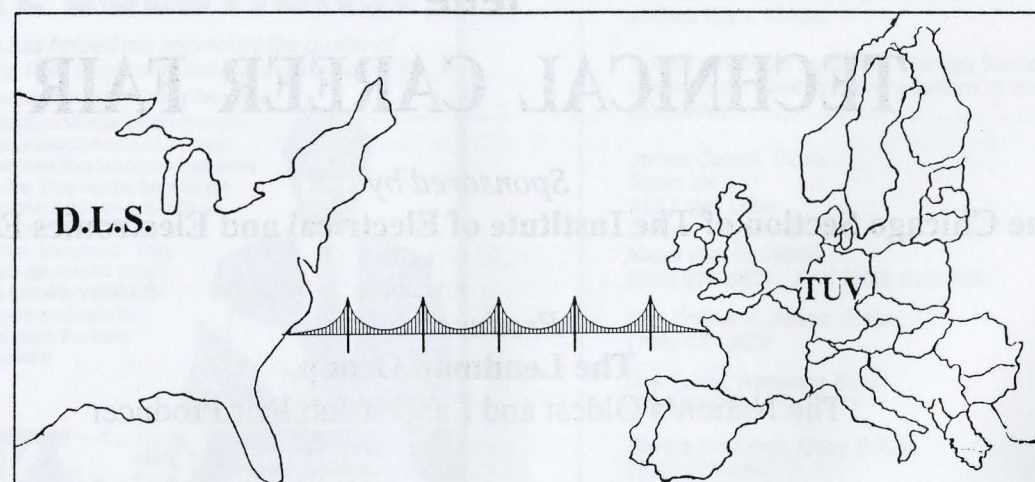
- No cost • No obligation • Confidentiality assured • No pre-registration
- Interviews on the spot with hiring managers in all technical fields
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- For list of participating companies, see the employment section of THE CHICAGO TRIBUNE on Sunday, January 12, 1992

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THE CHICAGO CHAPTER OF THE IEEE COMPUTER SOCIETY INVITES YOU TO A TOUR OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT) TRAFFIC SYSTEMS CENTER

DATE: January 29, 1992
TIME: 6:00 PM to 7:00 PM (closing time)
PLACE: IDOT's Traffic Systems Center, 445 Harrison St., Oak Park, IL
Harrison parallels the Eisenhower Expressway (I-290) just north of it.
building is between East and Ridgeland Avenues (between the Harlem and Austin exits)
on southside of street; you can park in IDOT's lots.

SPEAKER: Mr. Joseph MacDermott, Manager for IDOT'S Traffic Systems Center
Mr. MacDermott will first describe the role of this activity and its computational capabilities for freeway traffic management; a tour and a question-and-answer period will follow.

Since there are only 30 seats plus space for a few standees, make your reservations with IEEE at (708) 963-3828 by 1/15/92. Due to this limitation, we want to ask that our members should come first, with non-members/guests filling any "last-minute" open slots.

Please call Joe Feitler at (708) 505-9100, x277 for further details or travel directions.

DON'T BE A "NO-SHOW", PLEASE!

National Engineer's Week is fast approaching. The Chicago Chapter of IEEE would like for YOU to get involved. Our Student Activities Committee is proud to be a sponsor of Discover 'E'.

This program combines experiments, word problems and engineering experience to get students to think logically and creatively enabling them to compete in problem solving techniques.

Reports have shown that children in our schools receive some of the lowest test scores in technical courses. Our country will not be able to keep up technologically in the future without properly trained scientists and engineers.

Now is the time for something to be done. The Discover 'E' program benefits both teachers and students by highlighting the excitement and satisfaction of an engineering career.

The Chicago Section of IEEE would like all of its members to participate in this program and help shape the future of the engineering profession.

If you or anyone you know is interested in participating in this program please contact:

Julie A. Morrow
Vice-Chair IEEE Student Activities Committee
Commonwealth Edison Co.
System Electrical Engineering Dept.
P.O. Box 767
Chicago, Ill. 60690
(312)294-2854

SMC '92

THE 1992 IEEE INTERNATIONAL SYMPOSIUM ON SYSTEMS MAN AND CYBERNETICS

OCTOBER 18-21, 1992
THE KNICKERBOCKER HOTEL
CHICAGO, ILLINOIS

Program:

SMC '92 will include a program of tutorials, contributed and invited sessions. Suggestions for Tutorials, Special Sessions, and Papers in areas of interest to the SMC community are encouraged. Special sessions will be organized on Medical Systems and Informatics, Power Systems, and Telephony in addition to topics in Man-Machine Systems, robotics, Large-Scale Systems, Applications of Neural Networks, Socio-Economic Systems, Knowledge-Based Systems, Organizational Structures, Manufacturing and Testing, and Command and Control Systems.

Submission of Papers and Session Proposals:

Prospective authors and session organizers are invited to submit abstracts of 700-1000 words (2 to 3 pages) and/or session proposals to the conference secretary by March 1, 1992. Authors will be notified of acceptance by April 15, 1992 and camera ready copy is due by July 15, 1992.

Venue:

The Knickerbocker is located in Chicago's North Michigan Avenue Entertainment and Shopping Districts, a few blocks from Lake Michigan. Chicago's climate is at its best in October and the city has direct connections via O'Hare International Airport, throughout the nation and the world.

For further information contact:

Professor Richard Saeks
Conference Co-Chairman, Organization
Dept. of Electrical & Computer Engineering
Illinois Institute of Technology
Chicago, IL 60616
(312)-567-3221

Professor Nicholas DeClariss
Conference Co-Chairman, Program
Div. of Medical Informatics
Univ. of Maryland Sch. of Med.
Baltimore, MD 21201
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Illinois Institute of Technology
10 West 32nd Street
Chicago, IL 60616
(312) 567-3406

WASHINGTON AWARDS DINNER

Leon M. Lederman To Receive Washington Award

Leon M. Lederman, internationally renowned high-energy physicist, winner of the 1988 Nobel Prize in Physics, Professor of Physics at the University of Chicago, Science Advisor to the Governor of Illinois and President of the Advancement of Science has been elected to receive the 1992 "WASHINGTON AWARD", one of engineering's prized national honors.

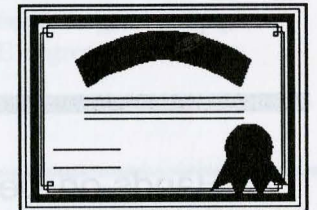
The award will be presented to Dr. Lederman at a banquet, Wednesday evening, February 19, 1992 at the Union League Club of Chicago during National Engineers Week.

The IEEE is a sponsoring society of this annual event. The Chicago section is trying to arrange tables for our members so we can be seated together. For reservations please phone Dennis Lamont at (708) 398-4510.

DATE: Wednesday, February 19, 1992

TIME: Social: 5:30 pm
Dinner: 7:00 pm
Tickets: \$50.00 each

LOCATION: Union League Club
65 W. Jackson Blvd.
Chicago, IL 60604



*Season's Greetings
and Best Wishes for the New Year*



From the IEEE Chicago Section

**EIGHTH ANNUAL
DUPAGE AREA
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ENGINEERING: IT'S EVERYWHERE**

**Saturday, February 22, 1992
12:00 P.M. to 4:00 P.M.**

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**201 East Loop Road
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708/682-6000**

Meeting of the IEEE Communications Society (Chicago Chapter)

DATE: Wednesday, January 15, 1992

GUEST SPEAKER: Michael J. Birck, President, Tellabs Inc.

TOPIC: The Trials and Tribulations of Starting a Technology-based Company

PLACE: Sharko's Restaurant, 2225 Ogden Avenue, Lisle, IL

TIME/COST: Social: 6:00 PM - Cash Bar

Dinner: 7:00 PM - \$13.00

Speaker: 8:00 PM - FREE

RESERVATIONS: Call (708) 963-3828 to make dinner reservations by Monday, January 13, 1992

FURTHER INQUIRIES: For further questions, contact Patrick Riley at (708) 512-7037.

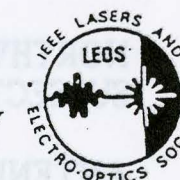
ABOUT THE TOPIC: Many aspiring entrepreneurs attempt to build businesses around a perceived niche in their own areas of expertise. Despite good intentions and hard work, many business ventures fail.

What is the winning formula for building and maintaining a successful business? Mr. Birck and five colleagues founded Tellabs, Inc., in 1975. He has nurtured its growth from its inception into a \$250 million international company. He will explore the not-so-simple answers to three basic questions: one, how do you start a technology-based business; two, how do you make it grow; and three, how do you manage the growth. Discussion will include the need for a variety of personalities and ideas, as well as having confidence in others. He will share how Tellabs weathered its crises and managed its crucial transition from tactical to strategic thinking.

ABOUT THE SPEAKER: Michael J. Birck is President of Tellabs, Inc., headquartered in Lisle, Illinois. Tellabs supplies a wide range of voice and data communications equipment to telephone companies, long-distance carriers, government agencies and businesses. Mr. Birck received a BSEE degree from Purdue University and an MSEE degree from New York University.



LASERS AND ELECTRO-OPTICS SOCIETY



Topic: Diffractive Optics in Photonic Switching and Computing Systems
Date: Thursday, January 23, 1991
Speakers: Rick Morrison and Sonya Walker
AT&T Bell Laboratories, Naperville, Ill.

ABSTRACT: Computer generated holograms (CGH) have been incorporated into prototype free-space photonic switching and optical computing systems, to generate spot arrays from a single laser and to form interconnections between stages. Up to 64x64 uniform spot arrays have been fabricated. Systems using CGHs have been demonstrated to provide 10,000 optical pinouts to a 1.24mm² chip. The design, fabrication, and performance of CGHs will be discussed, as well as their applications to free space digital optical systems. A tour of the fabrication and testing facilities, and demonstrations of CGHs applied to photonic switching at AT&T Bell Laboratories will be conducted preceding the dinner.

AT&T Bell Labs, 200 Park Plaza, Naperville, Ill
Jerry Sharko's, 2225 Ogden Avenue, Lisle, Ill

Tour:	5:30-6:30 p.m.	AT&T Bell Labs
Dinner:	7:00 p.m.	Sharko's, \$14 per person, \$7 for students
Technical Presentation:	8:00 p.m.	No Charge

Entree choices are Chicken Primarvera or Orange Roughy. Advanced dinner reservations should be made by calling the IEEE Chicago Message Center at (708) 963-3828 by 5:00 p.m. on Tuesday January 21, 1992. For additional information, contact Bob Novotny at (708) 713-5419.

VIA CENTENNIAL OF PARAMETER MEASUREMENT Chicago, Illinois 1892-1992

During Colombian Exposition planning in 1892, scientists and engineers came to Chicago from many countries to measure, define and name the electrical parameters we use today. The 14 SOCIETIES, 3 SUB-SECTIONS & 7000+ MEMBERS of IEEE CHICAGO SECTION are celebrating a precedent-setting event.

1992 events will recognize and commemorate PARAMETER MEASUREMENT CENTENNIAL. Joint technical meetings by SubSections / Societies are encouraged. The first 100th Anniversary presentation, "Power Plant Scrubbers", will be February 12, 1992 at The Flame Restaurant, Countryside, IL.

The POWER ENGINEERING SOCIETY, POWER ELECTRONICS SOCIETY and CHICAGO SECTION will sponsor this discussion of Fossil Fuel Power Plant Scrubbers and Systems. The midwest has the resources to build scrubbers for east coast power plants!

Three major IEEE conferences are being planned for spring. The first is PROJECT MANAGEMENT '92 as announced in December SCANFAX. Contact SubSection / Society Chairpersons and give input, ideas and comments to improve meetings and presentations. Your participation is encouraged. Watch for further announcements. In 1992:

NORTHWEST Howard Myers FOX Channing Brown *SOUTHLAND Bob Camillone
SUBSECTION 815-459-0100 VALLEY708-260-9631 SUBSECTION 708-349-2790

ANTENNAS Dr P Uslengi ELECTRN Carl Kannewurf LASER & David Naylor
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COMMUNI- A S Bhugra EMC Don Sweeney RELIABILITY Dan Glab
CATIONS 708-979-1901 SOCIETY 708-699-9060 SOCIETY 708-520-4405

CH&MT Praveen Gupta ENG in Britt Derek POWER Bob Korbett
SOCIETY 708-231-3142 MED/BIO708-981-3593 ELCTRNCS 708-202-8084

COMPUTER John North IAS/IES John Kovacik POWER Phil Raush
SOCIETY 708-224-4692 SOCIETY 708-272-8800 ENGINRNG 312-269-8357

ENGRG MANGT & Joseph Feitler NUCLEAR & PLASMA Bob Camillone
PROF COMMUN 708-505-9100x277 SCIENCES for Mary Scott 708-349-2790

Program Committee: Bob Camillone, Chairman * Under
John Driver & Hugh Edfors, CoChairmen Study

IEEE MEETING NOTICE

CHICAGO CHAPTER - IEEE EMC SOCIETY

DATE: THURSDAY - JANUARY 16 1992
Refreshments 7:15 P.M.
Meeting 7:30 P.M.

LOCATION: AT&T BELL LABORATORIES
2000 N. NAPERVILLE ROAD
NAPERVILLE, ILLINOIS

SPEAKER: RONALD BREWER, INSTRUMENT SPECIALITIES CO., INC.

TOPIC: APPLICATION OF RF GASKETS
TYPES
SHIELDING EFFECTIVENESS
MECHANICAL CONSIDERATIONS

FOR RESERVATIONS & DIRECTIONS: CALL IEEE OFFICE 708-963-3828



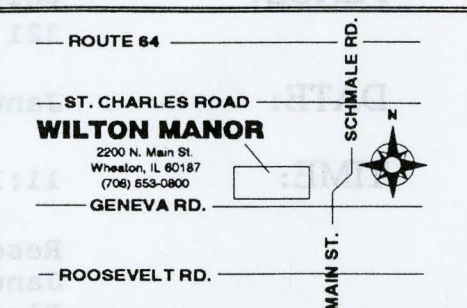
THE INSTITUTE OF
ELECTRICAL AND
ELECTRONICS
ENGINEERS, INC.



FOX VALLEY SUBSECTION

and
ENGINEERING MANAGEMENT SOCIETY

TOPIC: Technology Transfer and U.S. Competitiveness
DATE: Tuesday, January 28, 1992
SPEAKER: Dr. David T. Goldman
Acting Manager
Chicago Office, U.S. Department of Energy
PLACE: Wilton Manor, 2200 N. Main St., Wheaton, IL 60187
TIME/COST: Social: 6:00 p.m. Cash Bar
Dinner: 7:00 p.m. \$13.00
Students with ID: \$11.00
Speaker: 8:00 p.m. Free*



RESERVATIONS: Call (708) 963-3828 to make reservations for Dinner and/or Meeting, by Friday, January 24, 1992.

TECHNICAL QUESTIONS: Direct questions about topic or speaker to Jim Fancher at (312) 294-8085.

ABSTRACT: Dr. Goldman will discuss the Technology Transfer Program of the U.S. Department of Energy. He will illustrate how the program supports the effort to improve the competitiveness of U.S. Industries. The IEEE-USA finds improving U.S. competitiveness a top professional priority.

* Note: While the meeting is free, recognize that the room is subsidized by the cost of the dinners. Attending the dinner helps to support our continued offering of interesting meetings.



IEEE

POWER ENGINEERING SOCIETY

SPEAKER: Mr. James M. Hylko, MPH
Health Physicist
Fluor Daniel, Inc.

TOPIC: Spent-Fuel Management Strategies in the
United States: Trends and Issues

ABSTRACT: Although current U.S. Policy is to dispose of spent fuel in a permanent underground repository which is expected to begin operation in 2010, many plants will lose vital in-pool storage capability within the 1990s. This presentation will review existing in-pool and dry-type spent-fuel storage alternatives utilized within the commercial nuclear power industry today. Issues such as implementation, staffing requirements, security features, and radiological concerns will also be discussed.

BACKGROUND: Jim Hylko is currently a health physicist for Fluor Daniel, Inc. of Chicago, and has published several papers on operational health physics and radioactive waste management. Mr. Hylko received his Master of Public Health (MPH) degree in Radiological Health from the University of Michigan School of Public Health in 1986.

PLACE: Chicago Bar Association
321 S. Plymouth Court

DATE: January 15, 1992

TIME: 11:30 Social 12:00 Lunch 12:30 Presentation

Reservations must be made by noon, Monday, January 13, 1992 by calling (708)963-3828. Please leave name(s) and company name. Lunch is \$6.50.

THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.