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Official Publication of the Chicago Section • Institute of Electrical & Electronics Engineers • MARCH 1994



TIME SENSITIVE MATERIAL

CALENDAR OF EVENTS

For reservations please call IEEE Office at 1-800-898-4333 before the stated deadline
The meeting details are stated in their relevant announcements inside

March 1 Tuesday	Power Engineering Society/ Calumet Chapter	NIPSCO's Electric Dispatch Control Center	NIPSCO Center 1500 - 165th Street Hammond, In.	Tour: 4:00 PM Dinner: 7:00 PM Meeting: 8:00 PM
March 8 Tuesday	Chicago Section	Executive Committee	DeVry-DuPage 1221 N. Swift Rd. Addison, Il.	Food Service: optional Meeting: 7:15 PM
March 9 Wednesday	Power Engineering Society	Intro. and Explanation of Ground Conditioning	Chicago Bar Association 321 S. Plymouth Court Chicago, Il.	Social: 11:30 AM Lunch: noon Meeting: 12:30 PM
March 23 Wednesday	Fox Valley Subsection/Computer Society	Interactive Video Server	Jerry Sharko's 2225 Ogden Ave. Lisle, Il.	Social: 6:00 PM Dinner: 7:00 PM Meeting: 8:00 PM
March 24 Thursday	Power Electronics Chapter	Introduction to Secondary Batteries & Charging Techniques	Motorola Campus 1295 East Algonquin Rd. Schaumburg, Il.	Social: 6:00 PM Dinner: optional Meeting: 7:00 PM
March 26 Saturday	ICAST	International Conference On Advances Science and Technology	AT&T Bell Laboratories 2000 N. Naperville Rd. Naperville, Il.	Meeting: 9:30 AM Call for Details (708)979-1418
April 10 - 15 Sunday through Friday	Power Engineering Society	1994 IEEE/PES Transmission & Distribution Conference & Exposition	McCormick Place 2301 S. Lake Shore Dr. Chicago, Il.	See Announcement for Details
April 12 Tuesday	Chicago Section	Executive Committee	DeVry-DuPage 1221 N. Swift Rd. Addison, Il.	Food Service: optional Meeting: 7:15 PM
April 13 Wednesday	Communications Society/ Fox Valley Subsection	High-Speed Transmission over Bandlimited Channels: New Techniques	Jerry Sharko's 2225 Ogden Ave. Lisle, Il.	Social: 6:00 PM Dinner: 7:00 PM Meeting: 8:00 PM

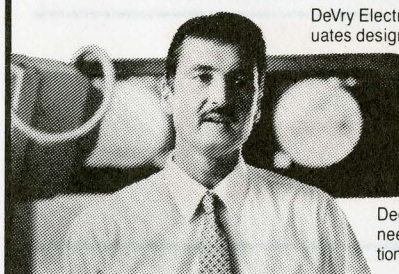
The IEEE Chicago Section Welcomes New Participants

We welcome these new Members, Students, and Affiliate Members and encourage each to participate in our Section activities.

John Gorman	Robert Scheffler	Zarex Deguzman	Roger Kohler	Mason Liu	M Bolan
Arms Yongyuth	Wallace Martina	Peter Hareen	Michael Coday	Norman Brunner	Steve Muscolino
Mark Baker	Ikhlaq Sidhu	Thomas Muscarello	Robert Colby	Ching-Tung Wang	Philip Rynes
Steve Yang	Ed Winslow	Myron Jeffries	Jerry Bills	Bruce Druetzler	Gary Wires
George Karones	Yvette Knapowski	Robert Kunimura	Alvin Barry	Subhashri Iyer	Robert McCarthy
Edward O'Connor	John Cox	Trina Roy	Ben Roberto	Albert Susanto	Yan Vilensky
Chris Daniel	Edward Swiss	Robert Anderson	Jeffrey Dement	Michael Kundert	James Loos
Ali Kerim Tore	G E Brockhurst	Dicran Gouljian	John Brooks	R F Roszko	Ernest Camm
Bennet Levine	David Bruner	Raymond Pemoller	Craig Dunkerschein	Gary Colan	Eric Vanderstelt
Kevin Buford	Vasudevan Pillai	Timothy Harrington	Rafael Denoyo	Meg Fledner	Gregory Wolnes
Daniel Restelli	Joseph Digangi	Mark Erlenborn	Gary Schlechte	Timothy Moran	D Morgan
Thinh Doan	Stephen Jacob	Sebastian Thalanany	F W Giacobbe		

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(312) 929-7837

DUPAGE CAMPUS
CONTACT: **John Petrik**
Dean of Graduate Placement & Student Affairs
1221 N. Swift Road • Addison, IL 60101
(708) 953-1300

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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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Joe Feitler, Assoc. Editor (708) 383-8773

Change of Address
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
APR	FEB 25	MAR 15
MAY	MAR 25	APR 15
JUNE	APR 28	MAY 15

THESE ARE FIRM DEADLINES FOR ADS AND COPY!!!

FREE ADMISSION TO THE EMC SYMPOSIUM IN AUGUST

THE IEEE EMC SOCIETY INTERNATIONAL SYMPOSIUM IS BEING HELD IN CHICAGO AUGUST 22-26. IEEE MEMBERS OF THE CHICAGO SECTION ARE NEEDED TO WORK AS VOLUNTEERS DURING THE SYMPOSIUM. IN RETURN, A VOLUNTEER WILL RECEIVE FREE ADMISSION TO THE EXHIBITS AND TO THE TECHNICAL PROGRAM FOR THE PORTION OF THE DAY THAT THEY ARE NOT VOLUNTEERING. ALSO, THE SECTION WILL RECEIVE A PERCENTAGE OF THE SURPLUS FROM THE SYMPOSIUM IF WE PROVIDE ENOUGH VOLUNTEERS. THE SYMPOSIUM IS BEING HELD IN THE DOWNTOWN CHICAGO LOOP AT THE PALMER HOUSE HILTON. THIS IS A GREAT OPPORTUNITY FOR STUDENTS AND RETIRED PERSONS TO HELP THE SECTION WHILE PARTICIPATING IN AN INTERNATIONAL EVENT.

IF YOU WOULD BE WILLING TO VOLUNTEER FOR THREE HOURS IN RETURN FOR THE BENEFITS DESCRIBED ABOVE, PLEASE CONTACT BOB HOFMANN AT BELL LABS, 708-979-3627.

****Notification of Change for Chicago Section Business Office****

The Chicago Section of the IEEE has changed its Business Office, effective 3/1/94, as follows:

Chicago Section IEEE
2460 Wisconsin Avenue
Downers Grove, Illinois 60515

Telephone Number 1.800.898.IEEE
FAX Number (708)963-2122



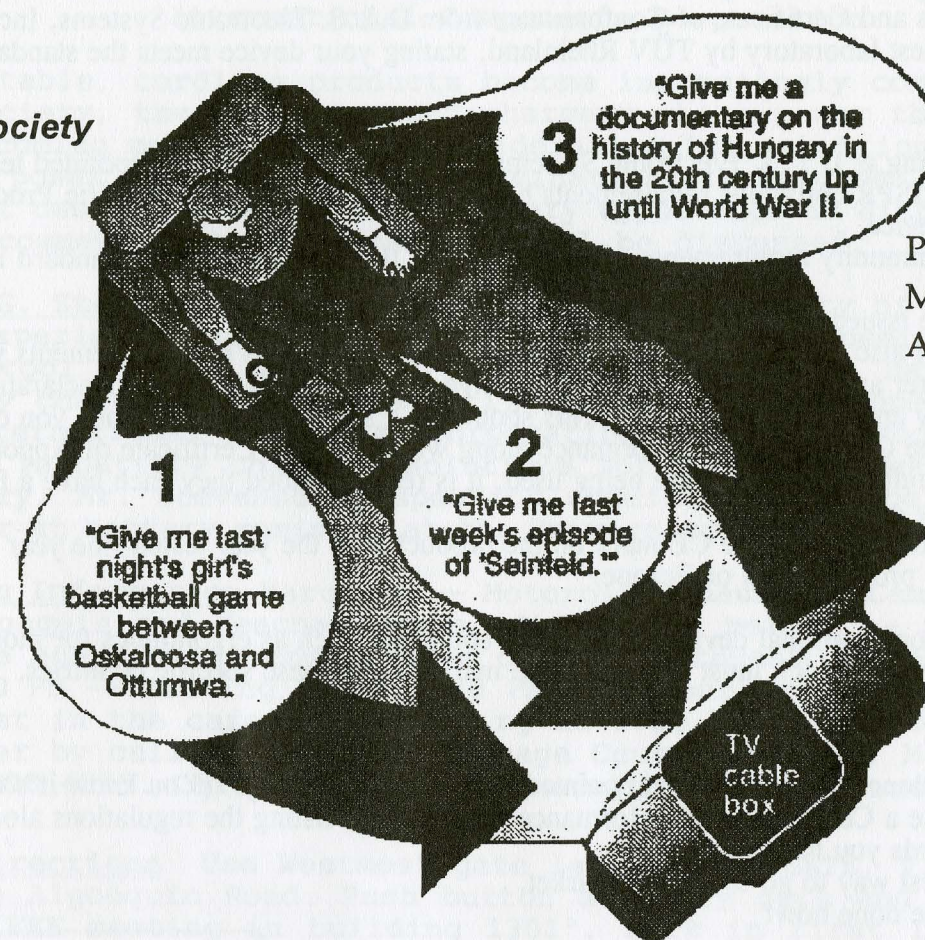
THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

INTERACTIVE VIDEO SERVER



Sponsored by
FOX VALLEY
SUBSECTION

Joint with
Computer Society



Presented by
Mr. Henry J. Kafka of
AT&T Bell Laboratories

Wednesday, March 23, 1994

In our busy world of the 1990's, people want more convenience in work and leisure activities. By combining video server technology and a suitable network, people can get entertainment and information services right in their own home when they want them.

Mr. Kafka will discuss the technological advances in video servers and the fiber-coax network that delivers broadband media services to peoples' homes. He will briefly cover the results of trial systems. He will also discuss the economics of large network-based servers and how they can deliver an affordable product for the consumer and be profitable for businesses.

6:00 PM

Social Hour

Jerry Sharko's
2225 Ogden Ave.
Lisle, IL

7:00 PM

Dinner / \$15.00* Payable at the door
Chicken Coq Au Vin with

Soup of the Day, Rolls, Coffee, and Dessert
Dietary and Vegetarian Meals can be requested when making your reservation

* Includes Complimentary Cocktails 6:30 to 7:00 PM

8:00 PM

Presentation / Free

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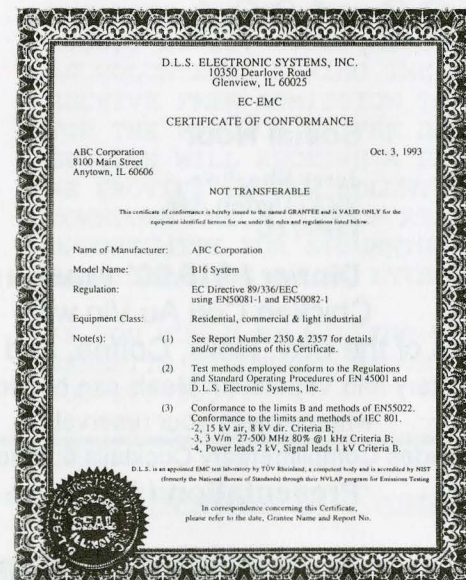
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4. Reports are issued by D.L.S. Electronic Systems, Inc.
5. D.L.S. will also issue a Certificate of Conformance which lists the requirements you have met.
6. Manufacturer and importer (legal representative in Europe) must issue a Declaration of Conformity and each must sign it. This should be a simple procedure since you can show the importer the Certificate of Conformance along with D.L.S.'s Certificate of Appointment. (Note: if multiple importers are being used, it is recommended they each have a Declaration of Conformity on file.)
7. Manufacturer must put the CE mark on the product with the year tested (the year is required).
8. Market the product in all of Europe.

Note: There are some national deviations in a few countries, such as ergonomics for monitors & keyboards in Germany which must be met before marketing in these specific countries.

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MEETING NOTICE

POWER ELECTRONICS CHAPTER

INTRODUCTION TO SECONDARY BATTERIES AND CHARGING TECHNIQUES

David G. Stevenson, Product Development Manager
International Components Corporation

As portable, cordless products become increasingly commonplace in our society, the batteries and chargers which power these devices are becoming more critical. Consideration for selection of battery type, power processing and termination techniques are key to product design. Commonly used battery types such as NiCd, NiMH, SLA and recommended charging methods will be discussed.

David G. Stevenson holds a BSEE from the University of Dayton. His work experience includes six years as a Design Engineer of cordless power tool systems at Black & Decker, focusing on batteries and battery chargers. He is presently the Product Development Manager for International Components Corporation. ICC is a recognized world leader in battery charging solutions for the rechargeable product industry. Mr. Stevenson's speaking credits include being a guest speaker at battery seminars at the University of Wisconsin-Madison.

Meeting Information March 24 -- Motorola Schaumburg Campus, corner of Algonquin and Meacham Roads (directions below) -- Social hour (coffee and donuts, compliments of the NorthWest Subsection) 6:00 to 7:00 PM -- Meeting 7:00- 8:00 PM -- Dinner may be purchased for low cost in the cafeteria starting at 5:30 PM if desired. Please register by calling the IEEE Message Center by Noon, March 22 -- 1 800 898 4333. Call George Studtmann with any questions (708) 392-7189.

Directions Use Westmost gate labelled "A GATE, VISITORS" on Algonquin Road. Push button at entry gate and tell guard "IEEE meeting in building 1301". Park in first lot on your left and enter door 13 (under Motorola sign) of the 6 story building adjacent to the parking lot. A guide will be at the reception desk in the lobby.

Future Cities Program And Our Section's Representative Entry

A group of 77 7th and 8th grade students representing 24 schools from Chicago and the suburbs used SIMM-CITY to generate computer simulated city plans and produced scaled models of their work. The students, their teachers and a volunteer engineer counselor brought their models and print-outs to conference rooms at the Motorola Schaumburg campus last January 22. Close to 40 volunteer judges from all engineering areas reviewed the work and selected the project from Lakeview Jr High, Downers Grove to represent the effort at a nationwide competition in Washington DC that was held during National Engineers Week.

A more complete description, including the names of the participants and the names they gave to their 'cities' will be in the April Scanfax. The steering committee applauds the participants and encourages you to consider volunteering for next year's program.

Volunteers Needed for IAS/IES Chapter Activation

Dear Fellow IAS/IES members:

We need volunteers to activate our chapter in order to hold regular meetings in the Chicago downtown area and in the suburban area. If you are interested in our IAS/IES Chapter activities, please call me.

Irwin C. Smiley, P.E.

W: (312)648-1700

H: (708)251-5859



Sr. Software Engineer

Packard Instrument Company, an international leader in the manufacture and sale of instrumentation for life science research and clinical diagnostics, is seeking a Sr. Software Engineer. The candidate we select will be a member of a product team responsible for the development of a line of state of the art automated Sample Preparation instruments. You will originate software in one or more of the following areas: Real Time system design, Multitasking operating systems, Structural Software design and Embedded systems programming.

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THE BIOENGINEERING PROGRAM AT THE UNIVERSITY OF ILLINOIS AT CHICAGO is seeking adjunct faculty members to teach in the undergraduate program, primarily in the area of design. The senior design sequence, a capstone for the undergraduate program, is focused on the principles of design as they are applied to medical devices, and culminates in group projects that are competitively evaluated. Candidates with experience in medical device design and who are interested in conveying their experience to the next generation of Biomedical Engineers are invited to submit their curriculum vitae and the names of three references to:

Irving F. Miller, Director
Bioengineering Program (M/C 063)
University of Illinois at Chicago
851 S. Morgan Street
Chicago, IL 60607-7052

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SPEAKER: Mr. Norm Muelleman, President
P.I.E.E. Inc.

TOPIC: Intro. and Explanation of Ground Conditioning

ABSTRACT: This presentation describes a new power line conditioner that, for the first time, safely filters the ground line as well as the hot and neutral line of a single phase, 3-wire power feed. PIEE's filtered ground is a ground impedance 30 times larger than was previously allowed by UL. The system benefits of a ground filter in a power conditioner are: 1) Break up ground loops. 2) Attenuate power line ground noise, and 3) Block surge currents from surge diverters.



PIEE's ground filtration, also known as "Ground Conditioning" (GC), is installed in the ground line in such a way as to not violate safety requirements of the power wiring. This presentation will show the basis of the UL acceptance while illustrating the problems of ground loops in systems and how GC solves those problems.

BACKGROUND: Mr. Muelleman has a BSEE from the University of Illinois at Chicago, 1971. His career includes experience in developing precision nuclear instrumentation electronics for Argonne National Laboratory, DOD test sites, and agricultural vehicles. Over the past 10 years, he has developed new products for the power conditioning business at companies such as ONEAC and POWERVAR. Norm was a co-founder of POWERVAR. Recently, he has formed his own company, PIEE.

PLACE: Chicago Bar Association
321 S. Plymouth Court
(near Jackson and Dearborn)
Purchase lunch tickets in lobby (\$7.50)

DATE: March 9, 1994

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

Reservation must be made by noon, Monday, March 7, 1994 by calling 312-236-4333. Please leave name(s) and company name.

In response to requests for additional information on the ADVANCE project, discussed at a January technical meeting by Dr. Peter C. Nelson, please contact:

Joe Ligas tel: 708-705-4800
ADVANCE Project Office e-mail: pdi@mana.eecs.uic.edu
Illinois Department of Transportation
120 West Center Court
Schaumburg, IL 60195-3161

POWER ENGINEERING SOCIETY
Joint Meeting with Calumet Chapter
NIPSCO's Electric Dispatch Control Center Tour

Date: Tuesday, March 1, 1994
Tour
Location: NIPSCO's Electric Dispatch Control Center
 1500 - 165th Street
 Hammond, Indiana
 Tel: (219) 853-5464

Dinner
Location: Alexander's Steak House
 9144 Indianapolis Blvd.
 Highland, Indiana
 Tel: (219) 838-8000

Schedule: 4:00 - 5:30 P.M. Tour begins
 7:00 P.M. Dinner - Family Style
 8:00 P.M. EMS Program

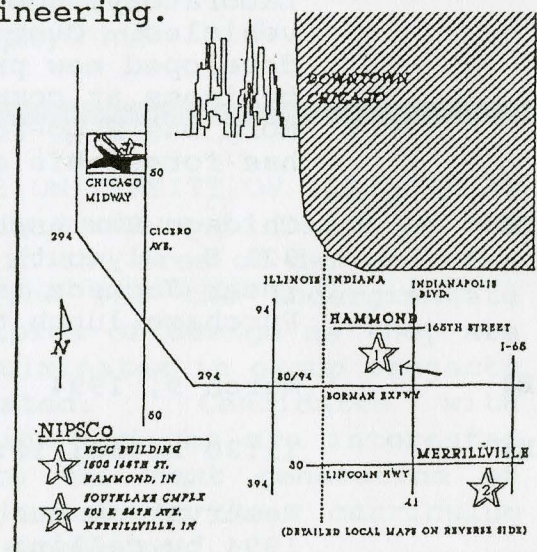
Price: Members and Guests \$17.00
 Student Members \$10.00



Energy Management System Application

SPEAKER: Paul G. Huseman
Topic: Automatic Generation Control (AGC) - An Overview
BACKGROUND: Mr. Huseman is an EMS Software Analyst at NIPSCO's Electric Dispatch Control Center. Paul, a Purdue University graduate with a B.S. in Electrical Engineering, has 12 years experience in Electric Utility Software Engineering.

Reservation must be made by
 5:00 P.M., Monday, February 25,
 1994 by calling 219-962-0431.
 Please leave name(s)
 and company name.



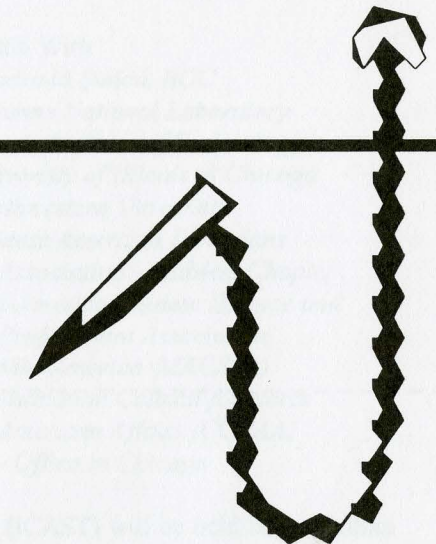
A.R.E.A. ASME IEEE Annual Technical Conference

This A.R.E.A. Conference, supported by the ASME and our Section, will be held during March 21 thru 24, 1994 at the Palmer House and Towers, Chicago. Subjects include Amtrack Electrification, Vehicle/track interaction, High speed rail in Europe, train control, dispatching, and flange bearing cross frogs. The Land Transportation Division, IEEE Vehicular Technology Society will meet during the conference.

For information, please phone W. Robert Moore at 312.357.2221 or Fax 312.357.2271. Note: the IEEE Chicago Section office is not a contact for this event.

OFFICIAL VOTING BALLOT
IEEE CHICAGO SECTION EXECUTIVE COMMITTEE
1994-1995 SEASON

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 Candidate**



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Instructions:

- Mark the circle to choose the nominated candidate or your own write-in candidate,
- sign your name at bottom,
- clip this page,
- fold ballot over dashed lines,
- affix a postage stamp, and
- mail before APRIL 30, 1994.

Your Signature:

Your Signature will be discarded before opening ballot.

IEEE ELECTION
2460 Wisconsin Avenue
Downers Grove, IL
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10th International Conference on Advanced Science and Technology
ICAST 94 - Saturday, March 26, 1994

THEME: ENTERING THE 21ST CENTURY - MULTIMEDIA INFORMATION SYSTEMS

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Association in Mid-America
(CAPAMA)*

Co-Sponsored by

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Northwestern University
Chinese American Librarians
Association - Midwest Chapter
Mid-America Chinese Science and
Professional Association
Mid-America (MACSTA)
Coordination Council for North
American Affairs (CCNAA)
- Office in Chicago*

The 10th International Conference on Advanced Science and Technology (ICAST) will be held in the **Indian Hill Main facility of AT&T Bell Laboratories in Naperville, Illinois, on March 26, 1994**. The purpose of this conference is to promote information exchange between academia and industry, faculty, practitioners and students. It provides an excellent forum for professionals in different but highly related discipline areas to get together to share with and learn from each other. This conference encompasses 24 rigorously peer-reviewed technical papers (to be presented at 1:00 - 5:00 PM) in computer and telecommunication technologies:

Computer Technologies:

- Multimedia Technology
- Object-oriented Technology
- Software Process Definition and Measurement
- Knowledge and Data Engineering
- Virtual Reality and Real Virtuality
- Parallel and Distributed Systems

Telecommunication Technologies:

- Communication Software Methodology and Tools
- Switching System Architecture
- Transmission Technology (ATM, Fiber, etc.)
- Wireless Communication and PCS
- Multimedia in Enterprise Communication Networks
- Intelligent Network

Plenary Session 9:30 - 11:30 AM

The Cutting-Edge Technology is Information Superhighway

Keynote Speech: *The Revolutionary Thrust of Networked Multimedia Communications*
Dr. John S. Mayo, President, AT&T Bell Laboratories, USA

The Fastest Growing Economy is in the Pacific Rim

Keynote Speech: *Industrial & Technological Development of the ROC on Taiwan*
Dr. S. C. Yang, Senior Vice Minister of the Ministry of Economics Affairs, ROC

For registration form, contact Registration Chair:

Mr. Steven Shaw (Tel) 708-979-1418

E-mail: shaw@iexist.att.com Fax: 312-413-1386

For more information, contact Conference Chair:

Dr. Hermann Tai (Tel) 708-576-9456

E-mail: tai@mot.com Fax: 708-576-4153

Registration Fee: \$40 for CAPAMA/IEEE members; \$50 for non-members; \$5 (w/o Proceedings) for students.

\$10 more for late (on-site) registration, space permitting, after March 15, 1994.

\$25 per additional copy of the Proceedings for purchase based on availability.

Tutorials and a workshop on job interview will be held in conjunction with the conference in the afternoon.

USAB Chairman Urges Congressional Action

United States Activities Board Chairman Charles K. Alexander recently wrote Congress on behalf of IEEE-USA's Technology Policy Council. The letters expressed IEEE-USA's views on environmental electronics issues and technology funding.

In a letter to the Senate Appropriations Committee and the 1994 Department of Defense (DOD) Authorization Conference Committee, Alexander urged support of a DOD Appropriations bill provision allocating \$20 million to an **Environmentally Conscious Electronic Systems Manufacturing Technology Initiative**. Recommended in a comprehensive Government-industry study of environmental issues confronting the electronics industry, the initiative should enhance U.S. competitiveness, improve manufacturing energy efficiency, and significantly reduce environmental pollution.

Alexander also wrote to the House Appropriations Committee commending provisions in H.R. 2519 for funding of advanced technology, manufacturing extension, and standard programs at the National Institute of Standards and Technology. He asked for support of H.R. 2519's technology funding levels and urged quick passage.

IEEE-USA Expands Electronic Mail Services

IEEE-USA is continuing to expand its distribution of information by electronic mail. Three new electronic "autoresponse" files have been established with Internet and Comppmail addresses to provide information on subjects of interest to IEEE's U.S. members. Several files already exist with such subjects as pensions, employment assistance, and lobbying. The new autoresponse files provide information on IEEE-USA Congressional Fellowships, Washington Internships For Students Of Engineering (WISE), and Student Professional Awareness Conferences (S-PACs).

In response to messages sent to these addresses, the corresponding IEEE-USA text file is sent automatically by e-mail. Information on IEEE-USA's Congressional Fellowship program, including qualifications, application procedures, and a listing of past Fellows is available at info.ieeeusa.congrel@ieee.org (Internet) or info.ieeeusa.congrel@compmail.org (Compmail). For WISE program information and application procedures, the address is info.ieeeusa.wise@ieee.org (Internet) or info.ieeeusa.wise@compmail.org (Compmail). To learn about S-PACs and how they're organized, contact info.spac@ieee.org (Internet).

To use electronic autoresponse files, just send an e-mail message to the address indicated. No subject line or text message is necessary. Your message will trigger the autoresponse mechanism, which will return an e-mail file containing the requested information to your electronic address.

These autoresponse files are just a few of the many information files being developed by IEEE as a member service. For a complete listing of current files and their addresses, send your e-mail request to info.info@ieee.org (Internet) or info.info@compmail.org (Compmail).

Health Care Reform On National Agenda

President Clinton presented draft legislation to be known as the *Health Security Act of 1993*, along with his Report to the American People on Health Security, on October 27. The proposal seeks various reforms of the national health care system. IEEE-USA is examining the President's proposals and considering developing a position on the role that technology can play in improving delivery and containing the costs of health care.

As a service to members, IEEE-USA is providing copies of the President's report and plan summary on a DOS-formatted computer disk in ASCII. The report and summary outline the proposed reforms contained in the new legislation. To obtain a copy, send your request, along with a check payable to IEEE-USA for \$7.50, to Health Care Reform at the IEEE-USA Office in Washington, D.C. Please specify whether you prefer a 3½" or 5¼" computer disk. Disks will be sent by first class mail. Allow up to two weeks for processing and delivery.

USAB Calls For Award Nominations

The Awards and Recognition Committee of IEEE's United States Activities Board is seeking nominations for a new Electrotechnology Transfer Award. Introduced this year by IEEE-USA's Defense Research and Development Policy Committee, the award honors individuals contributing to the successful transfer of Federal or state advanced electrical, electronic, or computer technologies to the commercial sector. Both government and civilian employees are eligible for this award. Selection will be based on the nominee's direct involvement in the application or transfer aspects of the technology in its original form or in a broader application than originally envisioned in the research.

Since 1992, USAB has also honored individuals with the **Harry Diamond Memorial Award** for distinguished technical contributions in the field of electrotechnology while in U.S. Government service. Recipients of both awards receive an engraved plaque presented by IEEE's Vice President for Professional Activities.

Nominations for the Electrotechnology Transfer Award and the Harry Diamond Memorial Award, as well as other USAB awards, should be submitted by March 30, 1994. Contact the IEEE-USA Office in Washington, D.C., for information and nomination forms.

IEEE Members Respond to NAFTA

More than 100 engineers responded to a recent IEEE-USA survey published in *Electronic Engineering Times* on the North American Free Trade Agreement (NAFTA). The poll was commissioned after inquiries from Members of Congress, the Clinton Administration, news media, and other organizations concerning IEEE-USA's views on NAFTA.

Forty-two percent of IEEE members responding favored support of NAFTA; however, 58 percent of nonmembers opposed the agreement. Respondents exhibited strong regional differences, with those in the Northeast and South evenly divided on NAFTA support. Midwestern and Western respondents opposed the Agreement by a two-to-one margin.

Opinions converged on the perceived economic effects of the agreement. Eighty percent of those surveyed maintain that NAFTA would increase the transfer of investment capital from the United States to Mexico or Canada, and more than 70 percent are concerned that NAFTA will increase the cross-border transfer of U.S. manufacturing jobs.

Data Base of Technology Assistive Devices Available

The National Rehabilitation Center (NARIC) is now offering ABLEDATA, an extensive data base listing information on more than 18,000 technology assistive devices for individuals with disabilities. Operable on computer modem setting 2400 baud, 8-N-1, ABLEDATA provides information on commercial and noncommercial devices for professional or individual use.

Users can access the listing through the electronic bulletin board ABLE INFORM, which lists assistive technology, disability, and rehabilitation information maintained by NARIC and ABLEDATA. ABLE INFORM also includes REHABDATA, a bibliography of the NARIC Library, as well as the NARIC KnowledgeBase, listing more than 3,000 sources of local and national information.

For more information about these bulletin boards, write to ABLEDATA, 8455 Colesville Road, Suite 935, Silver Spring, MD 20910-3319, or call (800) 346-2742. To access the bulletin board directly with a modem, call (301) 589-3563, Monday through Friday, between 8:00 a.m. and 6:00 p.m. Eastern Standard Time.

The Power Engineering Society of IEEE presents



1994 IEEE/PES TRANSMISSION AND DISTRIBUTION CONFERENCE AND EXPOSITION APRIL 10 - 15, 1994 McCORMICK PLACE - CHICAGO, ILLINOIS



Join thousands of experts and engineers at the 1994 Transmission and Distribution Conference to learn about the latest developments in transmission and distribution technology and techniques. This is the world's largest and most comprehensive technical conference and exposition devoted to electric power transmission and distribution.

TECHNICAL SESSIONS - McCormick Place East

Monday, April 11, 2:00 p.m. - 5:00 p.m.

Tuesday, Wednesday, Thursday, April 12, 13, 14, 8:30 a.m. - 11:30 a.m. and 1:00 p.m. - 4:00 p.m.

Friday, April 15, 8:30 a.m. - 11:30 a.m.

The world's most respected experts, engineers, educators and theorists will present about 150 paper sessions, panels, and tutorials. Training sessions, a new feature for this event, will contribute a hands-on approach to the direct learning experience.

EQUIPMENT EXPOSITION - McCormick Place East

Monday, April 11, 1:00 p.m. - 5:00 p.m.

Tuesday and Wednesday, April 12 and 13, 9:00 a.m. - 5:00 p.m.

Thursday, April 14, 9:00 a.m. - 3:00 p.m.

See and compare the newest advances in equipment, materials, and services from suppliers around the world. Over 500 of the most influential T & D companies will display their products in 200,000-square-feet of exhibits at McCormick Place East.

TECHNICAL INSPECTION TOURS

During the week, inspection tours of facilities such as a Commonwealth Edison electric substation, the Zion nuclear station, Fermilab, Chicago Tribune Printing Plant, Chicago Deep Tunnel project etc. will be offered for a view of advanced technology at work.

REGISTRATION - McCormick Place East - Lobby Level

Sunday, April 10, 1:00 p.m. - 6:00 p.m.

Monday, April 11 thru Thursday, April 14, 8:00 a.m. - 5:00 p.m.

Friday, April 15, 8:00 a.m. - 10:00 a.m.

FEE SCHEDULE

	Registration at Conference	One Day*
IEEE Member	\$150	\$50
Non-Member of IEEE	\$190	\$65
Spouse	\$ 25	--

*The one-day registration is not available to advance registrants.

IEEE Life members are admitted at no charge.

For complete details about the Transmission and Distribution Conference
call 1-800-PES-IEEE (1-800-737-4333)

IEEE Video Teleconferences

We are reintroducing the IEEE Video Teleconferences for our membership's participation at the College of DuPage, Business and Professional Institute this year.

The first program will be telecast Wednesday March 16 at 11 AM. The title of the first telecast is:

- Engineering Workstations Operating Systems: A comparative analysis of Windows NT and UNIX Solaris

The cost will not exceed \$35.00 for IEEE members and \$15.00 for Students.

Please register, show interest, or obtain further info by calling the IEEE office 1.800.898.4333 and get logged on the "March 16th IEEE Telecast" roster. Be sure to leave your name and phone number so that we can confirm or discuss your interest.

The Chicago Regional Section of the Society of Women Engineers

SHADOW -N- ENGINEER DAY

The Student Section Liaison Committee, along with Northwestern and IIT, will host a Shadow an Engineer Day this spring. The Shadow program allows students to be paired up with practicing engineers to "shadow" them for a day. The program gives students a chance to experience an engineer's work and work atmosphere.

Presently, the Chicago SWE is looking for engineers to volunteer in this educational activity. The "shadow" day would occur on any day between March 14th and April 1st agreeable to both student and engineer. The students will be responsible for arranging the actual date. If you are interested, please fill out the form below and fax to Annelie Hogan 312.856.3014 or call at 312.856.7867.

This program was offered two years ago with success. Please help me make it successful again! Thanks.

-----cuthere-----

Name: _____ Company: _____

Address: _____ Address: _____

Phone: H _____ W _____

Degree: _____ School: _____

Description of current position, responsibilities, or projects:

Preferences (particular day or student degree):

THE CHICAGO CHAPTER OF THE IEEE COMMUNICATION SOCIETY

joint with
The IEEE FOX Valley Subsection

High-Speed Transmission over Bandlimited Channels New techniques

DATE: Wednesday, April 13, 1994
GUEST SPEAKER: Rajiv Laroia, Ph.D.
PLACE: Sharko's Restaurant, 2225 Ogden Av., Lisle
TIME/COST: Social: 6:00 PM - Cash Bar
Dinner: 7:00 PM - \$14.00
Speaker: 8:00 PM - FREE
RESERVATIONS: Please call (312) 236-4333 to make dinner reservations no later than 4/11/1994

THE PRESENTATION: Dr. Rajiv will present recently developed advanced modulation techniques for transmission over band-limited channels. Most of these ideas were a product of the evolution of V.fast (now V.34) international standard for high-rate (28.8 kbits/sec) data transmission over voice-band telephone-line channels. He will describe new methods of:

- Constellation shaping to realize shaping gain
- Combined coding and precoding to realize coding gain in the presence of intersymbol interference
- Nonlinear warping to guard against proportional noise.

All these techniques have now made it possible to achieve data rates that were considered impossible only a few years ago. They can also be used for high speed transmission (HDSL) over the local copper loop. Rates of 6 Mbps are possible permitting transmission of existing TV signals via standard phone lines.

ABOUT THE SPEAKER: Rajiv Laroia received the B. Tech degree from Indian Institute of Technology, Delhi, in 1985 and MS and PhD degrees from the University of Maryland, College Park, MD, in 1989 and 1992, respectively, all in electrical engineering. During 1985-86 he was with Siemens Central Research and Development Laboratories, Munich, Germany. During 1987-92 he was a research assistant and Systems Research Center Fellow at the University of Maryland, College Park. Since June 1992 he has been with AT&T Bell Labs at Murray Hill, NJ. His research interests include quantization, channel coding, modulation, transmission and signal processing.

For more information contact Rushdi Muammar at (708)713-1603.

Networking enthusiasts and other kinds of volunteers

Much volunteer work is available to express your IEEE interests for Members, Life Members, Affiliates, and Students. Active roles, that would contribute to the success of our Section's programs, exist for liasons to other professional societies, to participate in steering committee activities, and to participate in various Section committee work. The activities include: Section-wide Membership services, Section-wide Technical meetings and Programs, Section-wide Conferences, Northwest Subsection, a future subsection serving the needs of Chicago (zip code) members, and the Technical Societies of Consumer Electronics, Signal Processing, Vehicular Technology, and Industrial Electronics. For your interest in Industrial Applications, please note the item by Irwin Smiley, elsewhere in this issue. You do not need to be a member of any particular Society to be on a steering committee. Express your IEEE commitment by being a volunteer and getting involved. Please leave your name at the IEEE office, 1.800.898.4333, indicating in which activity(s) you have an interest.

• • PLEASE POST — INVITE YOUR FRIENDS AND BUSINESS ASSOCIATES • •

IEEE RECOGNITION DINNER — 1994

DATE: SATURDAY, APRIL 30 1994
PLACE: AYALON BANQUETS
1905 EAST HIGGINS ROAD (AT BUSSE ROAD),
ELK GROVE VILLAGE, IL
TIME: 6:00 PM — COCKTAILS & HORSD'OEUVRES
7:00 PM — DINNER, FOLLOWED BY PROGRAM
TICKETS: DONATION — \$30.00 PER PERSON

PRESENTATION OF AWARDS BY THE CHICAGO SECTION

1994 IEEE Fellow Awards

Dr. John R. Cooper	Consultant
Dr. Walton J. Kitchen	Motorola, Inc.
Dr. Joseph C. Osterhout	Joslyn Manufacturing and Supply Company
Dr. Theodore S. Rzeszewski	Matsushita TY Company

1994 Student Awards

(Names to be announced)

1994 Student Advisor Awards

1994 Section Awards to Industry

Contemporary Control Systems, Inc.
Cherry Electric Company
United-Chemicon

THE SOCIAL SCENE

ENTERTAINMENT Ken Mate — noted raconteur, humorist, impersonator

DANCING Frank "K" and Company — a tuneful orchestra, with their truly smooth rhythms to suit your personal dancing pleasure

1994 RECOGNITION DINNER COMMITTEE MEMBERS:

Chairman	— Frank Lakowski
Vice Chairman	— John Waters, Waters Associates, Consultants
Secretary	— Norbert R. Orszula, PE
Treasurer	— John Waters, Waters Associates, Consultants
Arrangements	— Gene Golemo, Motorola, Inc.
Publicity	— Joseph Feitler, J. Feitler & Associates, Inc.
Entertainment	— Ray Schulenberg
Tickets	— Joseph Feitler, J. Feitler & Associates, Inc.
Solicitations Chairman	— Sheldon Isenberg, Northrop Corporation, DSD (Chairman)
	— Narisa Chu, C&W Systems, Ltd

PLEASE ORDER YOUR TICKETS (at \$30 per person)

- by mail — Joe Feitler, Box 5072, River Forest, IL 60305 (no later than April 22, 1994)
- by phone — Joe Feitler: (708) 383-8773 (no later than April 25, 1994)
- Please tell us about your groups — We will have tables seating 10 people
- You may request a fish or vegetarian dinner no later than April 25, 1994