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Official Publication of the Chicago Section • Institute of Electrical & Electronics Engineers • SEPTEMBER 1989

TIME SENSITIVE MATERIAL

CALENDAR OF EVENTS

For reservations call the IEEE office 649-2800
(unless otherwise indicated)

Copy Deadline for October Scanfax is August 28, 1989

Sept. 5 Tues.	Product Safety/ EMC Soc.	Third Party Certification	Arthur's Rest. Elmhurst Rd. (Rt. 83) and Oakton, N of I90 Des Plaines, IL	Social: 6:00 PM Dinner: 6:30 PM Talk: 7:15 PM
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Sept. 14 Thurs.	LEOS	Fiber to the Subscriber	Jerry Sharko's 2225 Ogden Ave. Lisle, IL	Social: 5:30 PM Talk: 6:15 PM Dinner: 7:15 PM
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Sept. 12 Tues.	Ch Sec	Executive Committee Meeting	MIDCON/89 Hyatt O'Hare	5:15 PM
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Sept. 19 Tues.	Ch Sec	All Chicago Area Meeting Dr. S.D. Hoffman/UL	Mr. Peters Mt. Prospect	Social: 6:00 PM Dinner: 7:00 PM Talk: 8:00 PM
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Sept. 20 Wed.	Communications Society	ISDN-1990	Wilton Manor Schmale Rd. Wheaton, IL	Social: 6:00 PM Dinner: 7:00 PM Talk: 8:00 PM
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Sept. 27 Wed.	EMC Society	Trends in the RF Shielding Environment	Lindgren 400 High Grove Rd. Glendale Heights	Social: 7:15 PM Talk: 7:30 PM
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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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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. We cannot forward this information for you, so please do not send it to the local office or phone direct to: 1-800-678-4333.

SCANFAX DEADLINES

ISSUE	COPY DUE	MAILED ON
OCT	AUG 28	SEPT 15
NOV	SEPT 26	OCT 15
DEC	OCT 31	NOV 15
JAN-90	NOV 28	DEC 15
FEB	DEC 26	JAN 15-90
MAR	JAN 30-90	FEB 15
APR	FEB 27	MAR 15
MAY	MAR 27	APR 15
JUNE	APR 24	MAY 15

THESE ARE FIRM DEADLINES FOR ADS AND COPY!!!

COMBINED SECTION MEETING

ALL CHICAGO AREA SUBSECTIONS AND SOCIETIES

1989-90 Kick-off Meeting

September 19, 1989

PRODUCTS LIABILITY, STANDARDS, AND CERTIFICATION

Guest Speaker: Dr. S. D. Hoffman, Consultant to the President/Underwriters Laboratories Inc.

As Vice President and General Counsel (in charge of legal and standards) of Underwriters Laboratories Dr. S. David Hoffman was personally involved with many products liability law suits and is well qualified to speak on the subject. Dr. Hoffman has a degree in electrical engineering from Yale University and a doctor of law degree from St. John's University. He was recently promoted to the grade of Fellow of the IEEE. He has written and had published numerous articles (some with his son, also a lawyer, as a coauthor) and given many speeches providing input for engineers working on consumer products. His work in the development of standards has improved the safety of products in the home and workplace in the United States and throughout the world. As an educator he has taught graduating engineers and others about the importance of the voluntary standards movement and the relationship of engineering safety and the law. Working engineers will find this talk rewarding and entertaining.

Place:

Mr. Peters Banquets,
1018 E. Mt. Prospect Plaza
Rand & Central Roads,
Mt. Prospect, Ill.

Agenda:

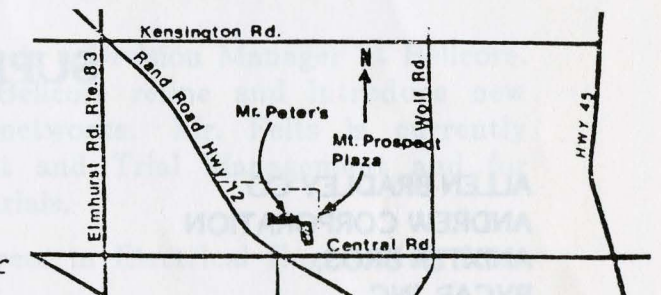
Social Hour	6:00 PM	Cash Bar
Dinner:	7:00 PM	\$12.00*
Meeting:	8:00 PM	No charge - All welcome

* (\$11.00 if reservation is made on or before Friday September 15)

Reservations: Call IEEE Message Center (312) 649 2800

Note to chairmen of societies and subsections: If you attend this meeting your group will be eligible for credit for a meeting.

A pocket calculator will be awarded to one IEEE members who registers on or before Friday September 15 and is present at the meeting.



IEEE RECOGNITION DINNER

MAY 20, 1989

1989 FELLOW AWARDEES

Karl E. Marstersteck, Jr.
Vice President of Network Services
AT&T Bell Laboratories

For technical leadership in the
Design and Development of Digital Switching Systems.

Dr. David Hoffman
Underwriters Laboratories

For technical leadership in the fields of
Product Safety, Voluntary Standardization and Education, and
abridging the gap between engineering and law.

Dr. Charles K. Rhodes
Professor, Physics Department,
University of Illinois, Chicago

For leadership in the development of High-Power, Short-Pulse
Lasers and for their application to studies of
atomic and nuclear physics.

Professor Henry Stark
Chairman, Electrical Engineering Dept.
Illinois Institute of Technology

For contribution to the reconstruction of medical images of
limited data.

1989 STUDENT AWARDEES

Organization	Scholarship	Service Award
University of Illinois Chicago		
Illinois Institute of Tech.	Robert Bohary	John Barun
DeVry Institute of Tech. (Chicago)	Keith Breeding	John Geraghty
DeVry Institute of Tech. (Lombard)	Dean Swanson	Harry Klimek
Northwestern	Erick Owens	David Cameron

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ZENITH ELECTRONICS CORP.

IEEE Communications Society Chapter, Chicago Section KICK-OFF MEETING FOR 1989/1990

AGENDA:

- Discussion of 1989/1990 Program Schedule
- Appointments to Chapter Committees
- Discussion of IEEE member grades

- Technical Presentation: "ISDN 1990"

DATE: Wednesday, September 20, 1989

GUEST SPEAKER: Wayne Felts, Bellcore

PLACE: Wilton Manor, Schmale Rd., Wheaton

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

Dinner: 7:00 PM - 7.95 + Tax & Gratuities

Speaker: 8:00 PM - FREE

RESERVATIONS: Call (312) 649-2800 to make reservation for Dinner
and/or Meeting by Monday, September 18, 1989.

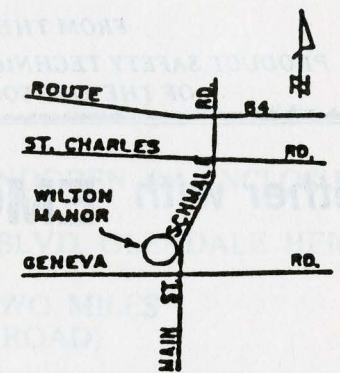
FURTHER INQUIRIES: For further questions call either Dick Jaeger at
231-7898 or Ken Smolik at 713-4789.

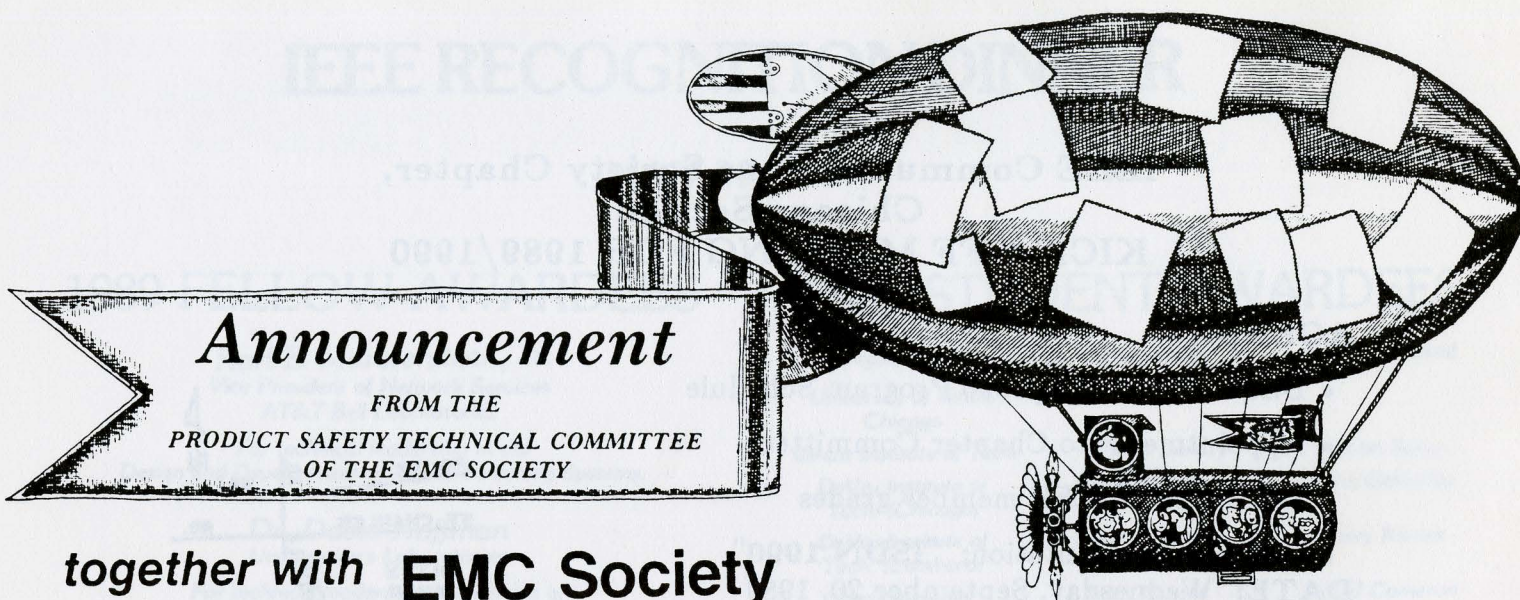
ABOUT THE TOPIC: "ISDN 1990" will discuss Bellcore's phased approach
for the introduction of ISDN into the telephone network. This presentation will
include the consideration of standard interfaces, procedures for call control and
signaling, service transparency, terminal portability, and inter-Lata
interworking.

ABOUT OUR SPEAKER: Wayne Felts is a Division Manager at Bellcore.
He is responsible for helping clients of Bellcore refine and introduce new
architectural concepts into their ISDN networks. Mr. Felts is currently
responsible for the Bellcore ISDN Project and Trial Management and for
providing technical support for BOC ISDN trials.

Mr. Felts holds B.S., M.S., and Ph.D degrees in Electrical Engineering from
Vanderbilt University.

Although the dinner is optional, it should be realized that the meeting room is provided by the
restaurant because of the dinners. Moreover, the conversations during dinner provide an
excellent opportunity to meet your fellow members.





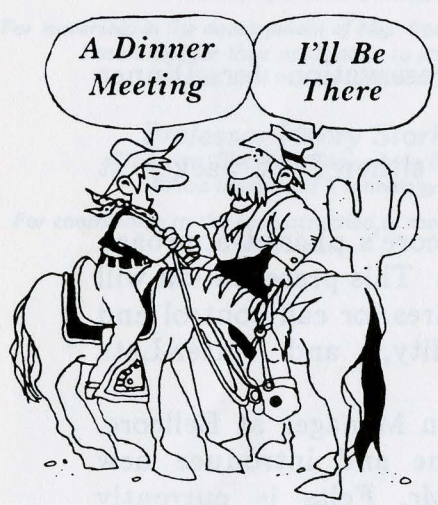
DATE: Tuesday, September 5, 1989

LOCATION: Arthur's Restaurant & Lounge
S. Elmhurst Rd. (Route 83) & Oakton Blvd.
Just North of I90
Des Plaines, IL (312) 593-2233

SOCIAL AND GRIPE SESSION: 6:00 P.M.

DINNER: 6:30 P.M. — Chicken Kiev
\$13.50 Per Person
R.S.V.P. Richard Hagedorn (312) 355-5722
John Allen (312) 827-7520
John Knecht (312) 272-8800 X3416

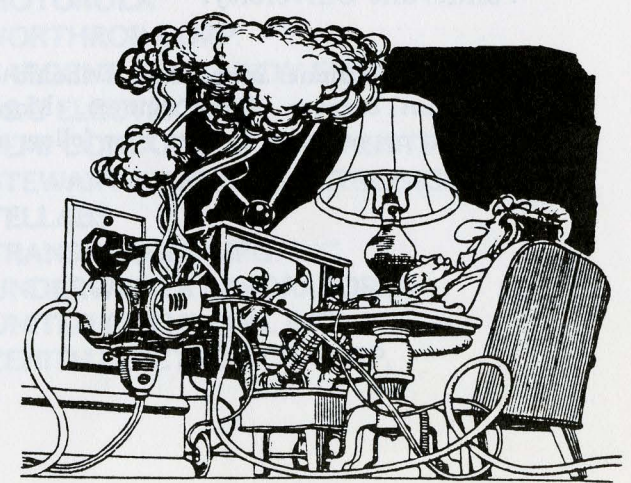
SPEAKER: 7:15 P.M. — Leonard Frier, President
Met Electrical Co.
Baltimore, MD



SPEAKER'S TOPIC

Third Party Product Certification Programs.

The Relationship of U.S. Programs to those of other countries, including Europe and Canada.



IEEE EMC SOCIETY MEETING

DATE - SEPT 27, 1989

SUBJECT - TRENDS IN THE RF SHIELDING ENVIRONMENT

TIME - 7:15 P.M. HOSPITALITY, 7:30 P.M. MEETING

SPEAKERS - ENGINEERING DEPARTMENT PERSONNEL OF LINDGREN RF ENCLOSURES

LOCATION - LINDGREN RF ENCLOSURES, 400 HIGH GROVE BLVD, GLENDALE HEIGHTS

(PLANT IS LOCATED IN THE HIGH GROVE CORP CENTER, TWO MILES WEST OF ROUTE 53 ON THE SOUTH SIDE OF ARMY TRAIL ROAD)

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(312)-699-9060 before 11/11/89 (708)-699-9060 after 11/11/89

IEEE SPONSORS DAY BANQUET

September 12, 1989 at the Hyatt Regency O'Hare, Rosemont, IL

Cocktail Reception: 6:00-7:00 PM Diplomat Room
 Dinner: 7:00-8:00 PM Forum Room
 Address: 8:15-9:00 PM

Guest Speaker: Emerson W. Pugh, IEEE President

This event is sponsored by both the Chicago Section and Region 4 who are also co-sponsors of MIDCON. This is an opportunity to meet the section, region and national leadership of IEEE. A short awards presentation will be made preceding Mr. Pugh's talk.

Tickets for the reception and dinner program: \$30.00.
 Contact Midcon/89 at 800-421-6816 for reservations.

The title of Dr. Pugh's talk is "Proud to be an Engineer and Member of IEEE." Dr. Pugh will discuss the role of engineers in society and some specific accomplishments of the IEEE. Members of IEEE should find this talk informative and interesting. In addition to being current president of IEEE, Emerson Pugh is a research staff member at the IBM T. J. Watson Research Center. He is also a member of the United Engineering Trustees Board, which is the governing body for the Engineering Societies Library, the Engineering Foundation, and the United Engineering Center in New York City. He has published widely in solid-state and information storage technologies, and has authored and coauthored several books. He is the recipient of several IBM patent awards, and is a fellow of the IEEE, APS, and AAAS.

Free To IEEE Members

A free drawing for a scientific calculator will be held at the September 19 IEEE kickoff meeting. The calculator will be awarded to a randomly selected IEEE member who registers in advance and is present at the meeting. Please bring your IEEE membership card or number to the meeting.

Call 649-2800 to register for the meeting and a chance to win the calculator.



COMPONENTS, HYBRIDS, AND MANUFACTURING TECHNOLOGY SOCIETY



CHICAGO CHAPTER CHMT- - -> REACTIVATION COMMENTS AND QUESTIONS

WHAT IS IT? Look at the Technical Committees- (TC's)
 Discrete Components- Parts and Subassemblies,
 Semiconductor Processing Technology
 Manufacturing Technology, Hybrid Microelectronics,
 Electronic Packaging, Thermal Management,
 Electrical Contacts, Standards, Materials,
 Gel Packaging Task Force, Product Safety (your work)
 The last Electronic Component Conference presented
 139 technical papers- 924 pages available for \$70 thru CHMT.

Here are some (abbreviated) titles from CHMT Transactions. Would you like to have a forum to discuss them, perhaps meet the authors?

1. Corrosive effects of solder flux on printed circuit boards.
2. Performance of copper based metallization systems in contaminated environments.
3. Internal thermal resistance of a multichip package design.
4. Bias Humidity performance and failure mechanisms of non-hermetic aluminum SIC's in an environment contaminated with chlorine.
5. Rapid nondestructive testing of ceramic multilayer capacitors.

WHAT IS IN IT? FOR YOU- It is us. FOR THE REST OF US-
 Your fresh-out questions; Your professionalistic attitudes;
 Your needs to keep informed; Your problem solving experience;
 Your product successes; Your knob twiddler horror stories;
 and if you work with Motorola, your Customer Satisfaction Index.

WHAT DO YOU WANT?

Meeting time-place	Your work interest	Topics-Formats
___ Biweekly	___ Fundamental Research	___ Forums
___ Monthly	___ Teaching	___ Open Questions
___ Quarterly	___ Product Developoment	___ Tutorials
___ Surprise me!	___ Project Management	___ Failure Analyses
___ M ___ T ___ W ___ Th ___ F	___ Process Controls	___ Ceramics/Metals
___ Lunch ___ Supper	___ Supplier Quality	___ One topic
___ After Supper	___ Product Applications	___ with ISHM/SAMPE
___ Lake County	___ Product Safety/Quality	___ with El. Devices
___ Schaumburg	___ Reliability Assurance	___ with Reliability
___ Naperville	___ Power/Sensor devices	___ with Matl Rch Soc.
___ at Schools	___ Spectro/Micro scopy	___ with ASM (Metals)
___ at Libraries	___ Semiconductor process	___ with _____.
___ at Companies	___ Qualification methods	___ _____.

How about: ___ an "Old Timer" Session, with pre- and post-retirees;
 ___ a Middle Aged Rut Session- not necessarily career obsolescence;
 ___ Now that MBA's have had their turn, could we get back to work?
 ___ Life before mini-boxes; ___ Suppliers, one commodity at a time.
 ___ Life with clean water and no solvents. ___ Student/Freshout Night.

WHAT TO DO-- MARK THIS OR A COPY AND MAIL IT. MAKE COMMENTS.
 TO PHONE OR LEAVE MESSAGES: Jack Sherman, 312 885-4189; 480-6832
 Sign this or a petition at the All Section Meeting Sep 19. THANKS

I petition for the establishment of an IEEE CHMT Chapter of the Chicago, Illinois Section.

Date _____

Printed Name _____ Signature _____

Member Grade - Number _____

Address _____

Phone _____

City _____ State _____ Zip Code _____

Work _____

Other Affiliations: _____

FOLD _____

COMMENTS: _____

FOLD _____

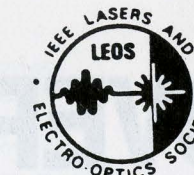
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LASERS AND ELECTRO-OPTICS SOCIETY

CHICAGO CHAPTER



DATE: Thursday, September 14, 1989

TOPIC: Fiber to the Subscriber - A Regional Telephone Company Perspective

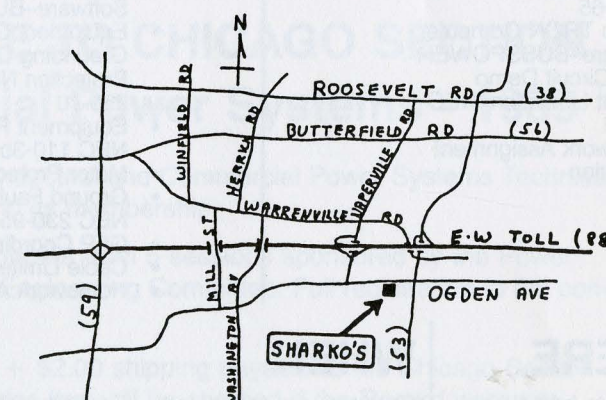
SPEAKER: Joseph D. Jensen, Director - Fiber Distribution Systems, Science and Technology, Ameritech, Rolling Meadows, IL

ABSTRACT: Before a widespread deployment of fiber in the local loop can take place, systems must be developed at a cost and level of functionality commensurate with the needs and applications of the operating companies. This presentation analyzes the basic objectives in the deployment of fiber in the loop from a regional operating company perspective. The characteristics of the current distribution network are discussed to ascertain the relevant cost targets for this new technology. The dominant factor in the cost of fiber-based systems is the position of the electronics and the amount of sharing afforded by alternative architectures. This effect is evaluated. Consideration is also given for a migration toward broadband capabilities. While the discussion on technology is certainly appropriate, we must remember that we sell services, not technology. Future systems must be oriented toward the delivery of viable, marketable services.

AGENDA: Social/Business Meeting: 5:30 PM (Cash Bar)
Technical Presentation: 6:15 PM (No Charge)
Dinner: 7:15 PM (\$13.00 per person)
(Students - \$7.00)

LOCATION: Jerry Sharko's
2225 Ogden Avenue
Lisle, IL

DIRECTIONS: (E-W Tollway heading W)
Exit at 53 South
Take 53 South to Ogden
Right (W) onto Ogden
Left into Sharko's lot



* Entree choices are London Broil and Pasta Primavera. Advance dinner reservations and entree selection should be made by calling the IEEE Chicago Message Center at 649-2800 by 5:00 pm on Tuesday, September 12, 1989. For additional information contact Tom Windhorn at 961-7922.

BUSSMANN OVERCURRENT PROTECTION SEMINARS

Includes a Copy of the TRON® Software for Power Systems Analysis Program

S C O P E

WHO

The Bussmann Overcurrent Protection Seminar is designed for Consulting Electrical Engineers, Plant Engineers, Electrical Contractors and Electrical Designers.

WHAT

The seminar emphasizes short circuit current calculations, interrupting ratings, coordination, current limitation, component protection, motor protection, ground fault protection, pertinent NEC articles and actual "hands on" practice using TRON Software for Power Systems Analysis.

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Engineering and application book, including technical data, bulletins, articles, and course materials, is provided for the presentation portion of the seminar. An additional comprehensive package is provided for TRON Software documentation and diskettes.

COST

The seminar fee is \$799 for each participant. This **includes continental breakfasts, lunches, and a complete copy of the TRON Software for Power Systems Analysis program.**

S C H E D U L E

Day 1

- 7/11-8/15-10/17-12/5
- Types of Overcurrents
- Types of Overcurrent Protective Devices
- Calculation of Short Circuit Currents
- Interrupting Ratings NEC 110-9 & 230-65
- Intro to TRON Computer Software-BUSSPOWER
- Short Circuit Demo
- Current Limitation-NEC 240-11
- Homework Assignment
- Reception

Day 2

- 7/12-8/16-10/18-12/6
- Component Protection NEC 110-10 & 240-1
- Coordination of Overcurrent Protective Devices-DEC 240-12
- Intro to TRON Computer Software-BUSSPLOT
- Equipment Grounding and Grounding Conductor Protection NEC 250-1, 250-51, 250-70
- Equipment Protection, NEC 110-3b
- Motor Protection NEC 430
- Ground Fault Protection NEC 230-95
- GFP Coordination NEC 517-14
- Cable Limiters NEC 230-82
- Homework Assignment

Day 3

- 7/13-8/17-10/19-12/7
- TRON Computer Software for Power Systems Analysis
BUSSPOWER-Three Phase Fault Analysis
BUSSPLOT-Computer Aided Plotting of Time Current Relationships
- Seminar Evaluation
- Graduation

WHERE

Sessions to be held in New York, Dallas, Chicago, and Los Angeles. Hotels to be announced.

WHEN

Seminars are scheduled for—
New York City—
July 11-13
Dallas, TX—
August 15-17
Chicago, IL—
October 17-19
Los Angeles, CA—
December 5-7

For further information on the seminar, please contact James Paul of Bussmann, at 800-322-1577, Ext. 8707.

In addition there will be an Overcurrent Protection seminar offered at the Bussmann facility (St. Louis, MO). Dates are Sept. 18-20.



Electronic Show and Convention
September 12-14/Chicago, Illinois

Dear IEEE Member;

Midcon is coming!

The largest, most important event for design, test and manufacturing engineers in the the Midwest will be held Sept. 12-14, 1989 at the Rosemont/O'Hare Exposition Center, Rosemont, Ill.

Midcon is Your Show! It is sponsored in part by Regions 4 and 5, Chicago and Dallas Sections of the Institute of Electrical and Electronics Engineers .

This year, over 300 companies will present products in four categories: semiconductors and components; test, measurement and inspection instrumentation; automated design tools; and production equipment.

We've put together a dynamic at-show program that includes a keynote address by Motorola's Christopher Galvin, a special HDTV exhibit by Zenith, *Autonet* - a multivendor, working exhibit of networked automated circuit design, simulation and test equipment/software tools, and a conference exploring purchasing's role in corporate success.

Other MIDCON events include 18 Professional Program sessions covering such topics as RISC, Networks, Production Technology, Computer Systems, ASICs, and Inspection and Test, with special sessions on HDTV and High-Performance Computers. Eight tutorials on subjects of vital interest to today's design team are also scheduled for MIDCON.

We look forward to seeing you at MIDCON.

Sincerely,

Jeff Coda
Co-Chairman,
Attendance Committee

Art Seymour
Co-Chairman,
Attendance Committee

SPECIAL OFFER AVAILABLE TO CHICAGO SECTION IEEE Industrial & Commercial Power Systems - 1989

The Chicago Section, a sponsor and host of the recent Industrial and Commercial Power Systems Technical conference is making the Conference Record available to its membership.

The Conference Record is 142 pages and contains 18 papers from 5 sessions sponsored by the Power Systems Protection Committee and the Power Systems Engineering Committee. Full registration to the conference included a copy of the Record.

Section members may purchase the Record for \$15.00 + \$2.00 shipping payable to the Chicago Section IEEE. This represents a substantial discount from the price that will be charged if the Record were purchased from IEEE Headquarters.

Inquiries should be directed to Dennis Lamont, Weldy/Lamont Associates, 1008 E. Northwest Highway, Mount Prospect, IL. 60056; 312-398-4510. Make checks payable to "IEEE Chicago Section". Conference Record - \$15.00; Postage and Handling \$2.00 for mail delivery.

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Fiber Optic Adaptors
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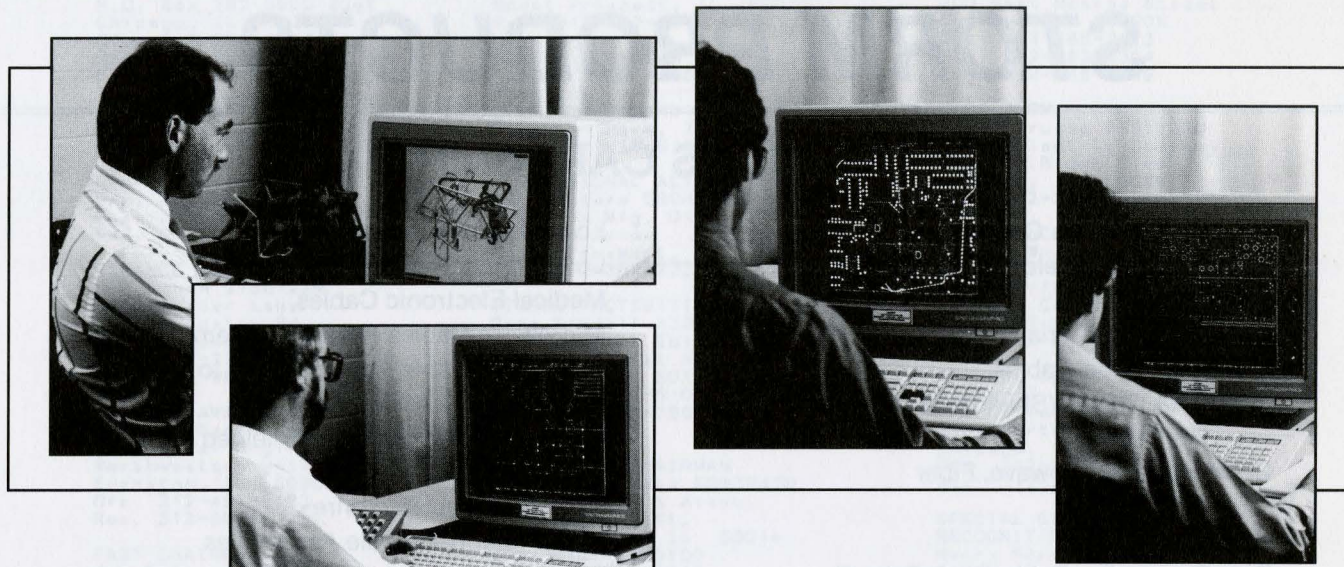
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