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Official Publication of the Chicago Section • Institute of Electrical & Electronics Engineers • JANUARY 1990

TIME SENSITIVE MATERIAL

CALENDAR OF EVENTS

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

Copy Deadline for February Scanfax is December 26, 1989

Jan. 8 Monday	Power Engineering Society/Calumet Section	High Voltage Fuse Construction and Operation	Gino's Steak House 163rd and Wallace Harvey, IL	Social: 6:00 PM Dinner: 7:00 PM Meeting: 8:00 PM
Jan. 10 Wednesday	Power Engineering Society	Amorphous Core 3 Phase Transformers Chicago, IL	Carson Pirie Scott Chicago-Monroe & Wabash	Social: 11:30 AM Lunch: 12:00 PM Meeting: 12:30 PM
Jan. 10 Wednesday	IAS/IES/Instrument Society of America	Modal Analysis- Frequency Response Predication	Cypress Restaurant 500 E. Ogden Ave. Hinsdale, IL	Social: 5:30 PM Dinner: 6:30 PM Meeting: 7:30 PM
Jan. 16 Tuesday	Product Safety Group/ EMC Society	Ground Fault Circuit Interrupters	Mitsubishi Electric Sales America 800 Bermann Ct. Mt. Prospect, IL	Meeting: 6:30 PM
Jan. 17 Wednesday	Communication Society/Fox Valley/ Computer Society	Fast Packet Technology	Wilton Manor Schmale Rd. Wheaton, IL	Social: 6:00 PM Dinner: 7:00 PM Meeting: 8:00 PM
Jan. 18 Thursday	Laser and Electro Optics Society	Photodetectors and Photodetector Arrays	White Eagle Restaurant 6839 Milwaukee Ave. Niles, IL	Social: 6:15 PM Dinner: 7:00 PM Meeting: 8:15 PM
Jan. 23 Tuesday	EMC Society	Magnetic Solutions to EMI/RFI	Schaumburg Marriott 50 N. Martingale Rd. Schaumburg, IL	Meeting: 7:30 PM



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Joint Meeting of the IEEE Communications Society, IEEE Computer Society, and the Fox Valley Subsection Chicago Section

AGENDA:

- Introductions
- Technical Presentation: **Fast Packet Technology**

DATE: Wednesday, January 17, 1989

GUEST SPEAKER: Gottfried W.R. Luderer

AT&T Bell Laboratories

PLACE: Wilton Manor, Schmale Rd., Wheaton

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

Dinner: 7:00 PM - \$11.00

Speaker: 8:00 PM - FREE

RESERVATIONS: Call (312) 649-2800 to make reservation for Dinner
and/or Meeting by Monday, January 15, 1989.

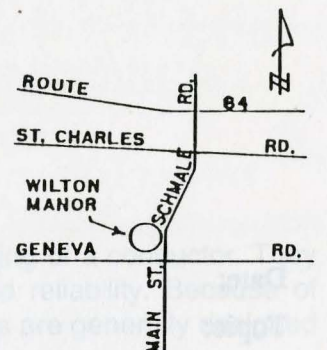
FURTHER INQUIRIES: For further questions call either Dick Jaeger at
(708) 231-7898 or Ken Smolik at (708) 713-4789.

ABOUT THE TOPIC: Emerging new broadband services will draw heavily
on a new technology known as Fast Packet Technology (FPT), whose origins
can be traced to Local Area Networks and the X.25 data packet switching
networks. First products using FPT are entering the market now, and the next
step in the evolution of ISDN, Broadband ISDN, is based upon FPT. Its
capability of supporting interactive voice, data and image using unified packet
format for transmission and switching has been demonstrated in the laboratory
and in the field. The talk will cover switch technology as well as related
standards and network issues.

ABOUT OUR SPEAKER: Gottfried W.R. Luderer is head of the Advanced
Switching Networks Department at AT&T Bell Laboratories in Naperville. He
is responsible for applied research in next-generation networking products. He
led development of an experimental fast packet switch used in the first field
experiment demonstrating packetized voice.

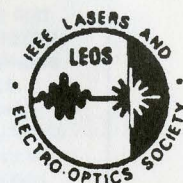
Mr. Luderer holds Dipl. Ing. and Dr. Ing degrees in electrical engineering from
the Technical University of Braunschweig, FRG. He joined AT&T Bell
Laboratories in 1965.

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.





Joint Meeting
IEEE Lasers and Electro-Optics Society
CHICAGO CHAPTER



and

Optical Society of Chicago (Hosts)

Date: Thursday January 18, 1990
Topic: Photodetectors and Photodetector Arrays
Speaker: James Melnyk,
EG&G Photon Devices, Salem, Massachusetts.

Social/Business Meeting: 6:15 PM (Cash Bar)
Dinner: 7:00 PM (\$14 per person, \$7 for students)
Technical Presentation: 8:15 PM (No Charge)

Location: White Eagle Restaurant
6839 Milwaukee Avenue
Niles, IL
(708) 647-0660

Directions:

The restaurant is on Milwaukee Ave., 3 blocks NW of Nagel.

From the Loop: Exit at Bryn Mawr from Kennedy Expwy (I90)

Take Avendale (NW, parallel to Kennedy) to Nagel, turn right (North) on Nagel.

From inbound on the Kennedy Expwy (I90) exit at Nagel, turn left (North)

Take Nagel north to Milwaukee Avenue and make a left turn to go NW.

Dinner is served "Family Style" with plates including Chicken, Beef, and Polish Sausage plus vegetables. Advance dinner reservations should be made by calling the IEEE Chicago Message Center at (312) 649-2800 by 5:00 PM on Tuesday January 16, 1990. For additional information, contact David Naylor at UIC, (312) 996-6010.



IEEE POWER ENGINEERING SOCIETY
JOINT MEETING WITH CALUMET SECTION

SPEAKER: Dr. William R. Rueth
Technical Director
Joslyn Power Products Corporation

TOPIC: High Voltage Fuses — Construction and Operation

ABSTRACT: Modern high voltage fuse principle of operation is the melting of a conductor. They are required to meet stringent demands of operation and reliability. Because of practical limitations for size, materials and economics, fuses are generally designed for specific applications.

The problem for the user is that there is not a single place where they can get all the information they might need to make an intelligent decision on selecting the type and size fuse most appropriate for their application. The types of fuses available will be presented along with their operation characteristics. Significant considerations for applying them will also be discussed. A handout of sources of information relating to high voltage fuses will be available.

BACKGROUND: Dr. Rueth received his B.S. and M.S. degrees in physics from the University of Wisconsin - Milwaukee. He received his Ph.D. degree in Materials Science from Marquette University for work on switching phenomenon in solid state materials. He has worked in the electric power industry for 23 years. In 1987, he joined Joslyn Power Products. Dr. Rueth is a Registered P.E. in Illinois. He is a Sr. Member of the IEEE, member of Kappa Delta Pi and CIGRE. He is also active on the IEEE Switchgear Committee, High Voltage Fuse Subcommittee, and several High Voltage Fuse Working Groups. He has published seven papers and has two patents.

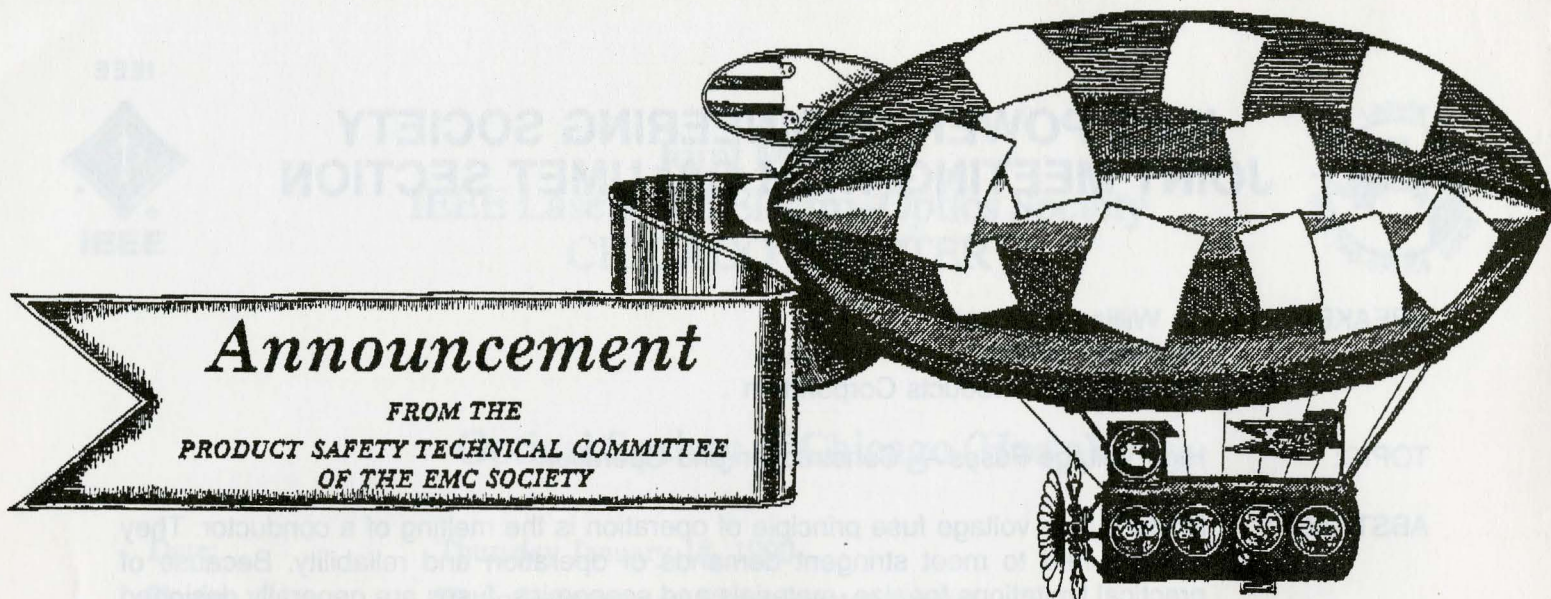
PLACE: GINO'S STEAK HOUSE
163rd & WALLACE
HARVEY, IL

DATE: January 8, 1990

TIME: 6:00 Social Hour
7:00 Dinner (Order from Menu)

Reservations must be made by FRIDAY 1/5/90, 12:00 PM. Reservations may be made by calling the IEEE Chicago message center at 649-2800. Please leave name(s) and company name(s) for those wishing to attend. Be sure to specify that you are making reservations for the 1/8/90 meeting.

POWER AND LIFE



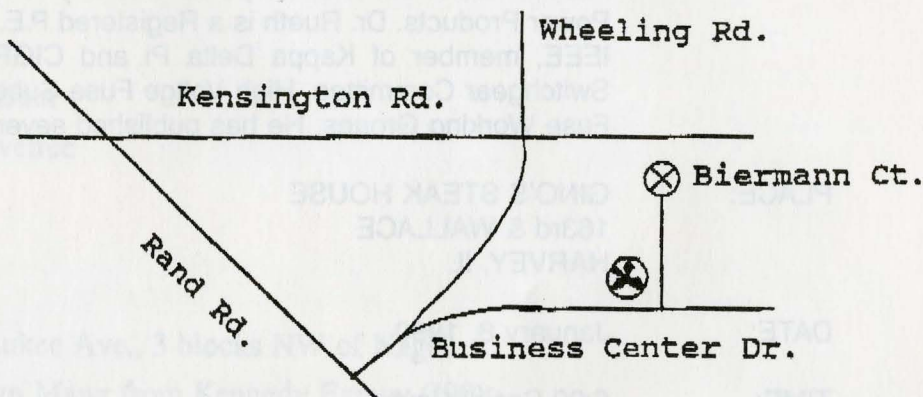
DATE: January 16, 1990

TIME: 6:30 P.M.

INFORMATION: Richard Hagedorn
John Allen
John Knecht

(708) 355-5722
(708) 827-7520
(708) 272-8800

LOCATION: Mitsubishi Electric
Sales America, Inc.
800 Biermann Ct.
Mt. Prospect, IL



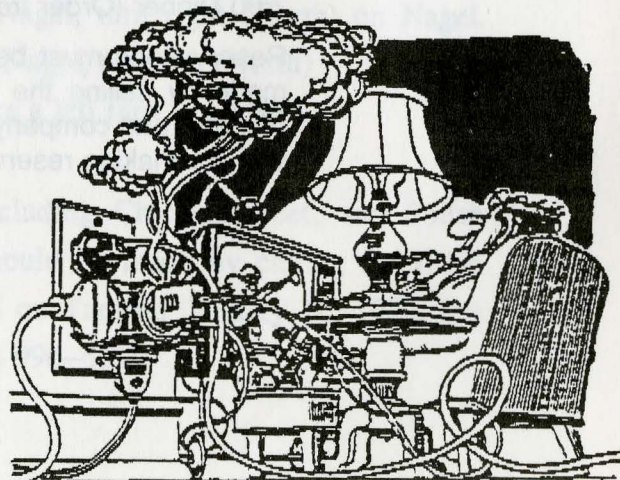
SPEAKER:

Sol Rosenbaum
Leviton Manufacturing Co.
Little Neck, N.Y.

TOPIC:

Ground Fault Circuit Interrupter (GFCI)
Immersion Detector Circuit Interrupter (IDCI)

An overview of their application and use;
a method that can be incorporated into the
design of a product to reduce and the risk of
electric shock.





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JOINT MEETING WITH INSTRUMENT SOCIETY OF AMERICA

Wednesday January 10, 1990

MODAL ANALYSIS - FREQUENCY RESPONSE PREDICATION

About the Speakers

Martin Gerold has spent the last two years as a Field Applications Engineer with Bruel & Kjaer Instruments. Mr. Gerold received his B. S. in Aerospace Engineering from Iowa State University.

David A. Larson of Bruel & Kjaer has 4 years experience in modal analysis as a Field Application Engineer. Mr. Larson received his Masters of Science in Mechanical Engineering degree from Purdue University and his BSME from the University of Illinois.

Meeting Topic

Discussion will revolve around Analytical and Experimental Modal Analysis for Sound, Vibration and Data Analysis applications including the following areas:

- * Frequency Response Functions
- * Modal Test Procedure
- * Computer Aided Modal Analysis
- * Applications of the Modal Model

Location	Time	
Cypress Restaurant	5:30 PM	Social
500 E. Ogden (Ogden & Rt. 294)	6:30	Dinner
Hindale, IL.	7:30	Program

Reservations

Please call the IEEE Message Center at 649-2800 as soon as possible to ensure Dinner seating.



We feel this is a positive step to help our members who are out of work. The program is intended for those who are at **Member Grade and above**.

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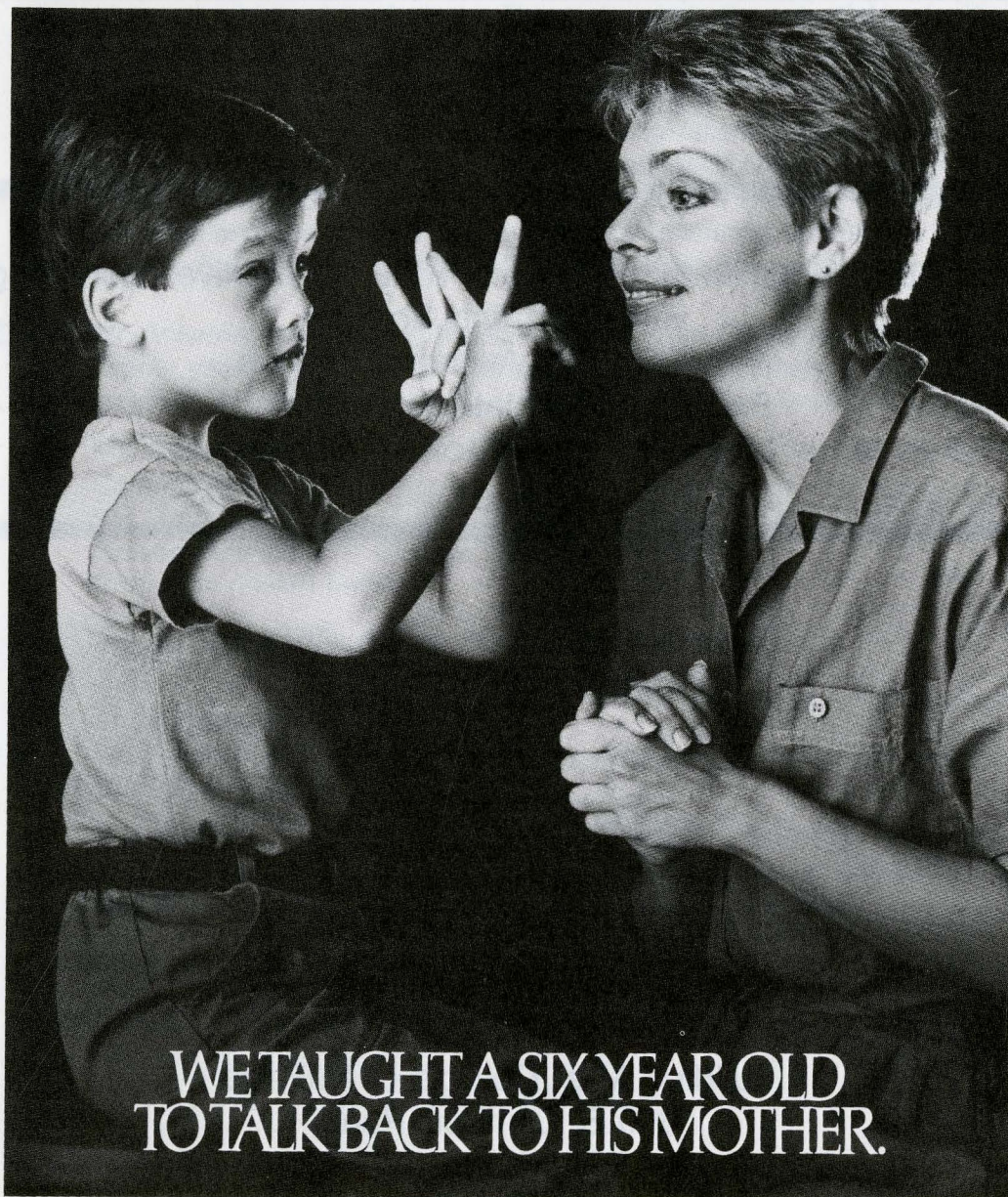
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IEEE POWER ENGINEERING SOCIETY

IEEE



- SPEAKER:** Mr. Jim Antweiler
Special Projects Coordinator
Transformer Division
Square D. Co.
- TOPIC:** Amorphous Core 2000 kVA, 3 Phase Transformer, Lessons Learned
- ABSTRACT:** Amorphous metal has been used for several years in the manufacture of small single phase distribution transformers. This material has the potential to significantly reduce the core loss, however the thinness, hardness and brittleness of the material has made the manufacture of larger transformers extremely difficult.
- The development of POWERCORE strip by Allied Metglas Products has made it possible to manufacture transformers in a stacked core configuration, making it more practical to produce larger kVA transformers. However, the material is stress-sensitive and special core support and manufacturing techniques have to be developed in order to manufacture a 2000 kVA, three phase transformer.
- BACKGROUND:** Mr. Antweiler received his B.S.E.E. degree from Colorado State University. He has twenty years experience in the design and development of distribution and large power transformers.
- Mr. Antweiler is a member of the IEEE and actively involved on the Transformer Committee.
- PLACE:** Carson Pirie Scott — Chicago (Monroe and Wabash)
Corporate (lower) Level
- DATE:** January 10, 1990
- TIME:** 11:30 Social
12:00 Lunch
12:30 Presentation
- Reservations must be made by Monday 1/8/90, 12:00 PM. Reservations may be made by calling the IEEE Chicago message center at 649-2800. Please leave name(s) and company name(s) for those wishing to attend.

POWER AND LIFE

The next meeting of the Chicago Area IEEE EMC Society will be held on January 23, 1990 at the Schaumburg Marriott at 7:30 p.m.

50 N. Martingale Road
Schaumburg, IL 60173
Tel: 240-0100

(Directions: Route 53 to Higgins Road, West to Martingale Road, Left on Martingale Road and they are the last building on the right.)

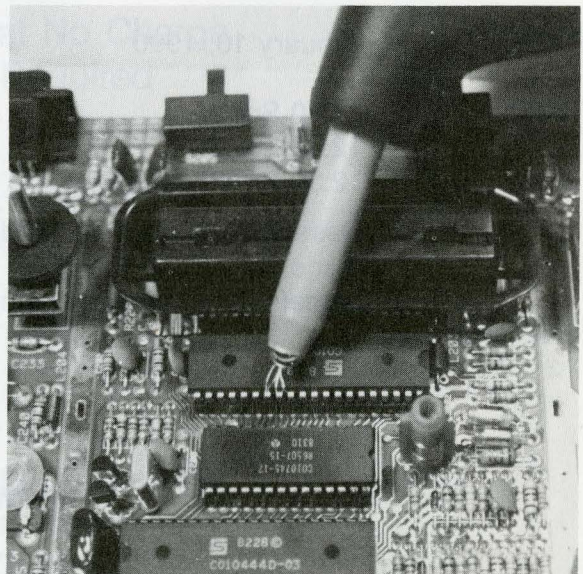
A presentation will be given by Coilcraft on "Magnetic Solutions to EMI/RFI" and will include a demonstration of some filtering components using an HP8753 B Network Analyzer.

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