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CALENDAR OF EVENTS

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

HAPPY NEW YEAR!

1980	"Computer-Based Life	Indus. Appls. Soc.	Nielsen's Village	Social	5:30 PM
JAN. 7	Safety System for Hi-Rise Buildings"	(j/w ISA)	7330 W. North Ave.	Dinner	6:15 PM
			Elmwood Park	Meeting	7:15 PM
8	Monthly Meeting — ALL WELCOME	IEEE Exec. Cte.	Brown & Root Offices	Meeting	7:30 PM
			2001 Spring Rd. Oak Brook		
9	"Railroads: Elec- tricity Provides the Way to Go"	Power Engrng. Soc. (j/w Veh.Tech.Soc. & West.Soc.Engrs.)	Midland Hotel	Social	11:15 AM
			176 W. Adams St.	Lunch	11:45 AM
			Chicago	Meeting	12:30 PM
16	"Motorola's AM Stereo System"	Northwest Sub. (j/w Communi. Soc. & Veh. Tech. Soc.)	Motorola, Inc.	Social	6:00 PM
			1299 E. Algonquin Rd.	Dinner	6:30 PM
			Schaumburg	Meeting	7:30 PM
17	"Fault Tolerant Computing in Real Time Environment"	Computer Soc. (Call Ralph Wallace 647-9000)	Standard Oil Bldg.	Social	5:30 PM
			200 E. Randolph Dr.	Dinner	6:30 PM
			Cafeteria, Chicago	Meeting	7:30 PM
FEB. 5	"Failure Mechanisms in Integra. Circuits & How to Avoid Them"	Reliability Soc. (Call Ray Schirmer, 647-8800, x 2718)	Holiday Inn	Social	6:00 PM
			Algonquin Rd./Rt.53	Dinner	7:00 PM
			Rolling Meadows	Meeting	8:00 PM
6	"Deep Tunnel Project"	Indus. Appls. Soc. (j/w Vehicular Tech. Soc.)	Nielsen's Village	Social	5:30 PM
			7330 W. North Ave.	Dinner	6:15 PM
			Elmwood Park	Meeting	7:15 PM
7	To be announced	Computer Soc. (Call Ralph Wallace 647-9000)	Standard Oil Bldg.	Social	5:30 PM
			200 E. Randolph Dr.	Dinner	6:30 PM
			Cafeteria, Chicago	Meeting	7:30 PM
10	Valentine's Day Dinner/Theatre Party	Power Engrng. Soc. (j/w Fox Valley Sub.)	Drury Lane South	Dinner	5:00 PM
			2500 W. 95th St.	Play	7:00 PM
			Evergreen Park		
12	Mthly.Mtg.—ALL WELCOME	IEEE Exec. Cte.	Brown & Root Offices	Meeting	7:30 PM
13	"Tunnel & Reservoir Plan (TARP)"	Power Engrng. Soc.	Stouffer's Rest.	Social	11:15 AM
			32 E. Randolph St.	Lunch	11:45 AM
			2nd Fl., Chicago	Meeting	12:30 PM

WHEN A FELLOW NEEDS A FRIEND

Have you ever felt that some of your IEEE friends should be especially recognized for their outstanding work? If so, there is a way. Why not try to make Fellows of your friends? Being a Fellow in the IEEE is the epitome of peer recognition. By nominating outstanding members to Fellow grade, you are not only honoring them, you are bringing increasing pride to our Chicago Section.

While you're thinking about it, pick up the phone and call Ed Koncel, Commonwealth Edison at 294-3365. Ed is Chairman of the Chicago Section Awards Committee and will give you all the information you need to nominate one or more members for Fellow. Remember, the watch-words for 1980 are: MAKE A FELLOW OF YOUR FRIEND!

REMINDER ABOUT PES VALENTINE DINNER/THEATRE PARTY

Christmas is a time for love, but what about Valentine's day? It's not too early to have a heart. Start thinking (and taking action) about guaranteeing a warm spot in your lady's heart.

Plan to bring her to the Power Engineering Society's Valentine Dinner/Theatre Party at Drury Lane South, Sunday — February 10, 1980. Dinner is at 5:00 PM, followed by a sparkling show at 7:00 PM. The cost is only \$12.50 per person.

To make sure that you and your lady will have accommodations (there are only 100 tickets available), mail your check/reservation to: Doug Smith, c/o Square D Company, 1107 South Mannheim Road, Westchester 60153, (261-2400). Reservations must be received five weeks prior to the play.

RELIABILITY PRESENTING "FAILURE MECHANISMS IN IC'S . . ."

On February 5, 1980 the Reliability Society is sponsoring a presentation entitled "Failure Mechanisms in Integrated Circuits and How to Avoid Them." The speaker will be Howard K. Dicken, Executive Vice President of the Integrated Circuit Engineering Corporation (ICE) based in Scottsdale, Arizona.

Although there are hundreds of mechanisms involved in failures of IC's, these mechanisms can generally be categorized as: 1) radiation; 2) static electricity; 3) vibration; 4) power line transients; 5) excessive heat or cold; 6) temperature cycles; 7) moisture; 8) ionic contamination; 9) conductive particles. A review of hundreds of case histories indicates that most IC failures could be avoided. Mr. Dicken will discuss failure mechanisms, analyses, and corrective actions. The corrective action involves areas including redesign of the IC, better workmanship, process specifications and inspection procedures.

At ICE, Mr. Dicken directs management of semiconductor activities, assembly and hybrid operations, failure analysis and reliability problems, legal and product liability training programs. He has published numerous papers for technical journals, specializing in the integrated circuit design and assembly areas. See Calendar of Events for meeting location and time. Reservations must be received by February 1.

"RAILROADS: ELECTRICITY PROVIDES THE WAY TO GO"

The current energy crisis has created renewed interest in railroad electrification projects with both railroads and power companies involved in the investigation of an alternative to diesel power. Railroad electrification provides a positive means for meeting transportation needs without increased reliance upon foreign petroleum fuels. Additional benefits are energy savings and improved air quality.

Mr. Bud Gowing of the Ohio Brass Company will speak on "Railroads: Electricity Provides the Way to Go" at the Power Engineering Society meeting on January 9, 1980. He has been involved with sales and applications engineering of O-B mining and transit products for over 33 years. See Calendar of Events for meeting location and time.

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

John Tyner, Editor
Electrical Energy Management
(312) 469-5534

Tom Traub, Managing Editor
Commonwealth Edison Company
(312) 294-2703

Eleanore Burda, Copy Manager
IEEE Office
(312) 236-4609

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Professional Activity
UPDATE

The Chicago Section has become a member of the Illinois Engineering Council (IEC). The IEC membership includes 20 engineering organizations in Illinois similar to IEEE. Through IEC, and with IEC concurrence, we have a lobbyist that will give attention to our issues that are before the state legislature; also he has contact with Governor Jim Thompson.

We have four Directors on the Council. They are: George Austin, Bob Scheman, John Waters and Paul Jahn.

Are you concerned about an issue related to engineering that is being considered by the Illinois State Legislature? Share your concern with one of the Directors, or drop a note to: Professional Activity — UPDATE, c/o Scanfax at 125 South Clark Street, Room 1545, Chicago 60603.

U.S. POSTAL SERVICE
STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION
(ACT OF AUGUST 12, 1970: SECTION 3685, TITLE 39, UNITED STATES CODE)

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7. Owner (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the

name and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be given.) Institute of Electrical & Electronics Engineers, Inc. — Chicago Section, 125 S. Clark St., Room 1545, Chicago, Ill. 60603.

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9. For optional completion by publishers mailing at the regular rates (Section 132.121, Postal Service Manual).

10. For completion by nonprofit organizations authorized to mail at special rates (Section 132.122, Postal Manual). The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes have not changed during preceding 12 months.

11. Extent and nature of circulation	Average No. Copies Each Issue During Preceding 12 Months	Actual No. of Copies of Single Issue Published Nearest to Filing Date
A. Total number copies printed (net press run)	5,200	5,200
B. Paid circulation		
1. Sales through dealers and carriers, street vendors and counter sales	3	3
2. Mail subscriptions	4,722	4,722
C. Total paid circulation	4,725	4,725
D. Free distribution by mail, carrier or other means. Samples, complimentary, and other free copies	200	200
E. Total distribution (sum of C and D)	4,925	4,925
F. Copies not distributed		
1. Office use, left-over, unaccounted, spoiled after printing	275	275
2. Returns from news agents	0	0
G. Total (Sum of E & F — should equal net press run shown in A)	5,200	5,200

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EMC — Design and Measurement for Control of EMI

Los Angeles, Ca. March 10-14, 1980
Toronto, Canada July 21-25, 1980
Five Days Price: \$795

This dynamic, comprehensive, one-week training course on Electromagnetic Interference (EMI) control and Electromagnetic Compatibility (EMC) design covers the broad RFI/EMI/EMC field. Both intra- and inter-system EMI prediction and analysis at the system/equipment level are thoroughly discussed.

Current EMC specifications, control and test plans, EMC design, EMI control, fix and retrofit techniques are examined and applied to real-life EMI problems. Test methods, procedures and measurement instrumentation which are presently used to detect EMI are reviewed with their application to illustrative examples of various on-the-job EMI tests.

Grounding and Shielding

San Francisco, Ca. June 17-19, 1980
Three Days Price: \$535

This three-day comprehensive training program covers the design techniques, procedures and rationale for grounding, both for safety and EMI control. The design of shields for cables, circuits, compartments, boxes, equipment, subsystems, systems, buildings and complete vehicles is also presented in this in-depth course. To combat grounding problems the course covers circuit and equipment isolation schemes including balanced networks, optical isolators, isolation transformers, double boxes, chokes and new techniques. Methodology flow-diagram questions and calculations are made for the design and the trade-off benefits of wiring-network, multiple-box-level grounding schemes in the presence of any electromagnetic ambient environment.

TEMPEST — Design, Control and Testing

Washington, D.C. May 5—9, 1980
Five Days Price: \$795

The purpose of the course is to discuss TEMPEST testing and control techniques which the manufacturer needs in both designing and developing information—processing equipment to offer the U.S. Government. This course is based in part on official U.S. Government TEMPEST publications, but is not sponsored or endorsed by the U.S. Government. Don White Consultants, Inc., is solely responsible for its content. Further information is available only to qualified organizations.

Table of Courses

Course Title	Course Location	Los Angeles, California	San Francisco, California	Washington, D.C.	Atlanta, Georgia	London, England	Stockholm, Sweden	Sao Paulo, Brazil	Toronto, Canada
EMC — Design and Measurement for Control of EMI		March 10-14					June 9-13		July 21-25
Introduction to EM/RFI/EMC			March 25-27						
Grounding and Shielding		March 18-20	June 17-19	April 22-24					Sept 18-18
TEMPEST Design, Control and Testing			May 3-8						
EMI Control in Electronic Data Processing Equipment						May 12-16		July 14-18	
Digital Modulation, Coding and Signal-Processing Techniques								July 8-10	
EMI Transient Analysis and Control			April 15-17						
MIL-STD-462 and System-Level EMI Testing and Procedures			June 9-13						
Interference Rejection in Telecommunications Systems		April 29-May 2							

FOR REGISTRATION AND MORE INFORMATION, CONTACT:

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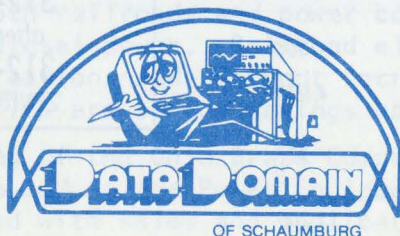
The International Training Centre, State Route 625
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