



Scanfax

SCANFAX, 3413 N. KENNICOTT AVE.
ARLINGTON HEIGHTS, IL 60004

U.S. POSTAGE PAID
NON-PROFIT ORG.
Permit No. 479
Glen Ellyn, Illinois

Official Publication of the Chicago Section • Institute of Electrical & Electronics Engineers • Dec. 1987

TIME SENSITIVE MATERIAL

CALENDAR OF EVENTS

For reservations call the IEEE office 255-3003
(unless otherwise indicated)

Copy Deadline for January Scanfax is November 30, 1987

DEC. 8	Monthly Meeting ALL WELCOME	IEEE Executive Cte.	Allen-Bradley Company 910 Pasquinelli Dr. Westmont, IL	Meeting: 7:30 PM
DEC. 8	Automated EMC Measurements	EMC Society	To be announced Call 255-3003	7:15 PM
DEC. 9	PLC's Installed In MCCs	Power Engineering Society	Carson Pirie Scott Wabash & Monroe Sts. Highland Room 8th Fl. Downtown Chicago	Social: 11:30 AM Lunch: 12:00 Noon Meeting: 1:00 PM
DEC. 9	Cogeneration	Industry Appls. Soc./ Industrial Electronics Society	Mr. Peter's Restaurant 1018 Mount Prospect Ave. Mount Prospect, IL	Social: 5:30 PM Dinner: 6:15 PM Meeting: 7:15 PM

How come so many companies like yours hire so many DeVry graduates?

Our grads have the DeVry combination of broad-based, practical electronics education—plus plenty of hands-on experience.

So our Bachelor's Degree* grads or Electronics Technicians can step right in. Adjust quickly on the job. Bridge the gap between theory and application.

And our nationwide, computerized placement system makes it easy to locate and prescreen applicants.

What's more, DeVry Institute of Technology can also provide your firm with well-qualified graduates in Computer Information Systems.

Just send the coupon or call our Director of Graduate Placement.

*Diplomas awarded at Calgary, Toronto and DeVry Technical Institute, Woodbridge, NJ

CHICAGO
(312) 929-7837
LOMBARD
(312) 953-1300

DeVRY
INSTITUTE OF TECHNOLOGY
Campuses in Atlanta • Chicago
Columbus • Dallas • Kansas City • Lombard,
IL • Los Angeles • Phoenix • Woodbridge,
NJ • In Canada: Calgary • Toronto

DeVRY. We're serious about success.®

Associate Directors of Graduate Placement

Marilyn Woodhall
2000 S. Finley, Lombard, IL 60148
Karen Kushino
3300 N. Campbell, Chicago, IL 60618

Please provide information on hiring
Electronics graduates, and your free
placement services.

I'd also like information on DeVry
graduates in Computer Information
Systems.

© 1986 DeVRY INC.

Name _____
Title _____
Company _____
Address _____
City _____
State _____ Zip _____
Bus. Phone _____

G-477

More EMI/RFI Protection

We offer a complete line of modular enclosures, equipment cabinets, and custom enclosures in virtually all shielding materials.

- Patented Double-Electrically-Isolated construction for maximum protection against low-frequency magnetic and high-frequency electric fields
- Double sealed, single shield systems designed to accommodate conventional interior finishing for computer room and medical applications
- Modular interchangeable panel design permits modifications and relocation without specially trained personnel

Lindgren enclosures are **assembled, tested, and guaranteed** to meet your specifications before they are shipped

Call us for more
information and applications
assistance.
312-628-9100.

 **LINDGREN**
ENCLOSURES
1228 Capitol Drive
Addison, Illinois 60101

SCANFAX, (Publication) number
(ISSN 0018-1297), Dec. 1987
Volume 40, Number 4, SCANFAX
is published monthly, except July and
August by the Chicago Section Institute
of Electrical and Electronics Engineers
for the information of its members.
Business Office is at 3413 N. Kennicott
Ave., Arlington Heights, Illinois 60004,
telephone number (312) 255-3003.
Subscription rate for IEEE members
collected in dues. \$1.50; others, \$10.00
per year. Third class postage paid at
Glen Ellyn, Illinois.

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

Bob Hofmann, Editor
Room 2B 220
AT&T Bell Labs
Naperville Rd.
Naperville, IL 60566
979-3627

James Carroll, Assoc. Editor
416-7277

C.A. Larsen, Copy Manager
C.A. Larsen & Associates
(312) 255-3003

Change of Address

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



POWER ENGINEERING SOCIETY

MEETING NOTICE

LUNCHEON MEETING

WEDNESDAY, DECEMBER 9, 1987

SPEAKER: Dennis J. Massar
President
Mattew and Associates, Inc.

TOPIC: Programmable Logic Controllers (PLC's) Installed in Motor Control Centers

ABSTRACT: The presentation will define a basic PLC interface to a motor control center. Two selected control systems will be identified and their characteristic use of PLC's discussed. A brief discussion of the inherent features and standard options of PLC's will be included. A major emphasis will be on selection, interfacing, programming and installation costs of PLC's in motor control centers. A plant electrical system with distributed PLC control may provide a lower cost control system. The selection of the proper PLC system for a particular application will provide for a secure control system.

SPEAKER: Dennis J. Massar is President of Mattew and Associates, Inc., an integrator of electrical control systems for material handling and control systems. He has ten years of electrical engineering experience on fossil generating stations and material handling systems while employed with Sargent and Lundy Engineers, Chicago.

LOCATION: Carson Pirie, Scott & Co.
Highland Room - Corporate Level
Monroe & Wabash
Downtown Chicago

Cocktails: 11:30 A.M.
Lunch: 12:00 Noon
Meeting: 12:45 P.M.

Lunch is \$11.00 per person.
Advance reservations should be made by calling Judy Larsen or Carolyn Glandt at 255-3003 before December 7, 1987.

Power Electronics

POWERTRON, INC.

David Thimmesch (414) 425-3600
HALES CORNERS, WISCONSIN

Consulting Engineering Firm
specializing in the following areas
of Power Electronics:

- ☐ Servo Systems
- ☐ Power Supplies
- ☐ Motor Drives
- ☐ UPS Systems
- ☐ Battery Systems
- ☐ Special Inverters

Services include Circuit Design
and Analysis, System Analysis,
Thermal and Reliability Analysis,
EMI/RFI Evaluations and Technical
Writing.

Power and Life

PLACEMENT SERVICE

The Chicago Section is now offering a Placement Service for its members free of charge. The program is intended for those who are Member Grade and above and is a positive step to help our members who are unemployed. If interested in any of the applicants listed below, call the IEEE office (255-3003) for their name and phone number. If marked "confidential," the applicant will be contacted by the IEEE office so that he/she may contact the prospective employer.

- B-95 — BSEET entry level position in marketing or customer service
- B-96 — BSEE entry level electl. Engr. position license Engr. in training
- B-97 — CAE/CAD/CAM sys. dev. engr. & proj. leader; BSEE, MSCS, + 15 yrs. exp.
- B-98 — BSEET entry level position in the field of computer hardware/software
- B-99 — BSEE IIT, seeking position with Chicago area electrical contractor
- B100 — BSEET sales, consult on system installation routing of cables
- B101 — MSEE seeks position in consumer/automotive electronics Chicago area
- B102 — Plant or Mfg. Engr. Mgr. BSEE exp. in instrum/Xducers/elec. mech. contr.
- B103 — PhD, seeking position AI mfg. & design automation, controls, robotics
- B104 — Temporary or permanent electrical engineering position (entry level)
- B105 — MSEE entry level position in communication theory and fiber optics
- B106 — BSEE, BSCS - looking for entry-level software eng Pursuing MSCS

- B107 — BSEE - entry level pos. in electrical & electronic eng. Int. in Comm. field
- B108 — BSEE - entry level position in communication field, Digital/Analog circuit
- B109 — BSEE - IIT entry level comm systems engr 1+ yrs. coop and Tech exp.
- B110 — BSCS NI U, entry level programmer: Fortran, IBM assembler, VSAM, IMS MVs, sys
- B111 — BSEE entry level position in electrical and electronics engineering
- B112 — SR tech mgr & consultant seeks Chicago R & D or Dept. Mgr. posn. MSEE, M - EM CONFIDENTIAL
- B113 — BSEE elect. Design/Project engr. process/Automation control 10 yrs. exp.
- B114 — BSEE UIUC seeking entry level position in communication systems
- B115 — BSEE entry level position in electrical and electronic engineering
- B116 — MSET plant eng/maintenance mgr 30 yr exp or consultant status
- B117 — MBA/BSEE seeking a position in management information systems
- B118 — BSCS/Engr. UIC, GPA 4.06, co-op — Pascal, Fortran, Basic, C, Lisp, Assembler
- B119 — BSEE UIUC seeking entry level pos. in comm. field 1 yr. coop

If you are an IEEE member and unemployed, contact the IEEE Placement Service • 3413 N. Kennicott Avenue • Arlington Heights, IL 60004, at 255-3003 for an application form.



THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

INDUSTRY APPLICATIONS SOCIETY INDUSTRIAL ELECTRONICS SOCIETY CHICAGO CHAPTER

TECHNICAL MEETING

WEDNESDAY DECEMBER 9, 1987

COGENERATION

OFFICERS

CHAIRMAN

BARRY C. BRUSSO
S&C ELECTRIC COMPANY
6601 N. RIDGE BLVD.
CHICAGO, IL 60626
(312) 338-1000 EXT. 370

VICE-CHAIRMAN

JAMES D. PALMATIER
ALLEN-BRADLEY
910 PASQUINELLI DRIVE
WESTMONT, IL 60559
(312) 325-6750

TREASURER

TOM MCLEOD
MCLEOD ENGINEERING
310 MELVIN DRIVE
P.O. BOX 217
NORTHBROOK, IL 60065
(312) 564-1450

SECRETARY

RONALDO JENKINS
COMMONWEALTH EDISON
4 LORRAINE AVE.
WOODRIDGE, IL 60517
(815) 458-2801 EXT. 2485

PROGRAM COMMITTEE

CHAIRMAN

ERWIN PLOFSKY
131 FORESTWAY DRIVE
DEERFIELD, IL 60015
(312) 945-8761

Main Speaker

Alvin D. Curtis P.E.

Manager-Power Facilities Group

Campbell Doboe & Assoc.-Division of Davey-McKee Engineering

About the Speaker

Alvin Curtis has been in his present position for the past 4 years and has 28 years of experience in the power industry. Mr. Curtis received his Civil engineering degree from the University of Michigan, is a member of the National Society of Professional Engineers and is registered in 4 states.

Meeting Topic

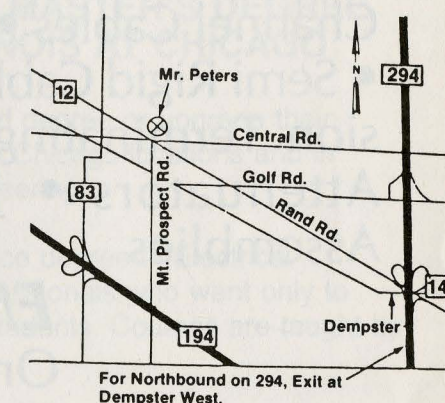
Mr. Curtis will define cogeneration and the conversion cycles involved in its implementation. He will discuss the available technologies, the factors affecting the selection and the current trends in recent projects. In addition, Mr. Curtis will cover the role of Governmental Agencies, factors associated with interfacing with utilities, and basic economic considerations for decision making.

Location

Mr. Peter's Banquets
1018 Mt. Prospect Ave. at Rand and Central
Mt. Prospect Shopping Center
Mt. Prospect, IL

Time

5:30 Cash Bar
6:30 Dinner
7:30 Technical Program



Reservations

Reservations are required for dinner seating and reservations are highly recommended to assure seating for those who wish to attend the technical portion of the meeting only. The cost of the dinner is \$12.00. There is no charge for those attending the technical meeting only. Guests are welcome.

Please call Judy Larsen at the new IEEE office (255-3003) by December 3rd for reservations.

ENGINEERED CABLE & CABLE ASSEMBLIES

ELECTRONICS

Shielded & Unshielded Cables • Molded RS-232 Interconnect Computer Cable Assemblies • Coax & Triaxial Cables • Custom Designed Cables

MICROWAVE

Semi Rigid Coax • Semi Rigid Coax Assemblies • Precision Delay Lines • Flexible Microwave Cables • Phase Matched Cables • Precise Microwave Adaptors

FIBER OPTICS

Single & Multimode Cables • Multi Channel Cables • Fiber Optic Coil Cords • Semi Rigid Cable & Assemblies • Precision Terminating Adaptors • Precision Attenuators • Jumpers & Pigtail Assemblies

ENGINEERING SERVICES

On Site Testing & Terminating • Semi Rigid Cable Routing Assistance



116 SHORE DRIVE
HINSDALE INDUSTRIAL PARK
HINSDALE, ILL. 60521
(312) 323-9121 TWX 910-651-0850
FAX (312) 323-9398

ELECTROMAGNETIC COMPATIBILITY SOCIETY

Topic: Automated EMC Measurements
Speaker: Ed Bronaugh of Electro-Metrics
Date: Tuesday, December 8
Time: 7:15 PM
Location: To be announced.

Call the IEEE office, 255-3003 for location information and reservations.

OFF-CAMPUS ENGINEERING COURSES AND MASTER'S DEGREE OFFERED FROM THE UNIVERSITY OF ILLINOIS AT CHICAGO

Programs for working engineers who want to acquire an advanced degree or upgrade their professional skills are now offered in the evening at five suburban Chicago locations and in Rockford by the University of Illinois at Chicago, College of Engineering.

Students in the off-campus program can obtain a Master of Science degree in Electrical Engineering, Computer Science, or Mechanical Engineering. Professionals who want only to upgrade their skills may take up to three courses as nondegree students. Courses are taught by videocassette supplemented by instructor's visits.

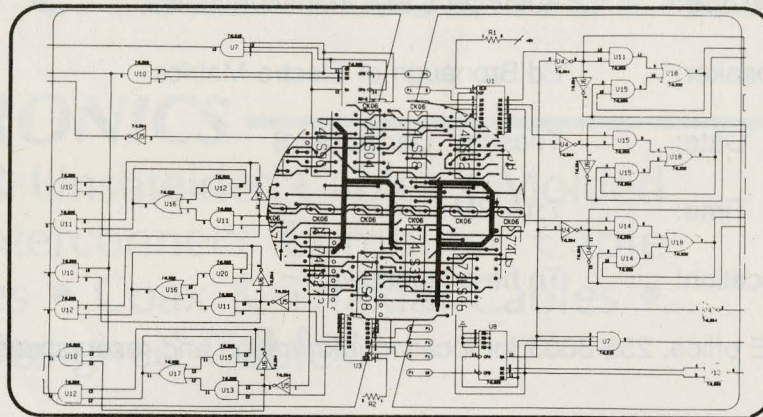
Courses to be offered in Winter Quarter 1988 will begin January 4 at the following sites: Des Plaines, Oak Brook, Palatine, Palos Hills, River Grove, and Rockford. Course registration will begin December 3, 1987.

For further information, please contact Patricia Rink, program coordinator, (312) 990-0740.

Farnsworth Computer Center Offers You Design Tools For PCB Layout



Farnsworth Computer Center offers you HP's high performance computers, printers, and plotters for your electronic design needs. Computer aided design systems from Farnsworth Computer include one year warranty on all components and an optional 24 hour loaner service is available to ensure minimum down time in the event that something does go wrong.



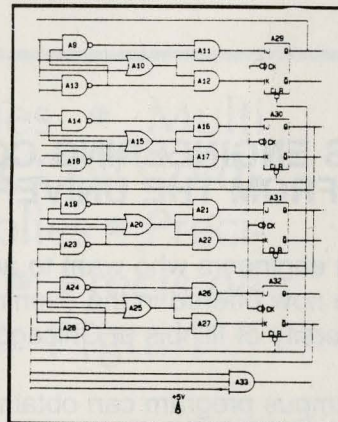
p-cad
PERSONAL CAD SYSTEMS, INC.

HP Plotter Family

Hewlett-Packard plotters offer speed, accuracy, and reliability that are unsurpassed in the industry. If you can't afford to do without your plotter, you can't afford to do without an HP plotter.

- 7475 - A and B sizes, 6 pen carousel, 38 cm/sec
- DraftPro - C and D sizes, 8 pens, 40 cm/sec
- DraftMaster - A thru E size, 8 pens, 60 cm/sec

P-CAD has established itself as the leading PC based electronic design software with a 52% market share. Find out why by attending one of Farnsworth's free P-CAD seminars. Call 941-3444 to make an appointment.

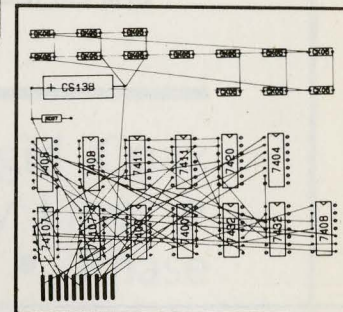


Schematic Capture

- Hierarchical levels can have: 500 components, 600 nets, 8000 pins
- Standard component libraries
- Easy symbol creation
- User defined macros
- Integration with PCB design

PCB Layout

- True support of surface mount
- Interstitial vias
- 1 mil trace widths
- 100 user definable layers
- Multiple trace widths
- Multiple pad types



Auto Routing

- 32 routing layers
- 60" by 60" board size
- 1 mil trace widths and spacing
- Custom routing strategies
- Completely re-entrant router
- Custom clearance rules
- Via minimization



VISIT OUR NEW SUPERSTORE

Chicago Association of Technical Societies Merit Award

The Chicago Section of the IEEE is the largest member of CATS, the Chicago Association of Technical Societies. We are looking for candidates for the association's Merit Award. Candidates are judged on life work, participation in professional organizations, interprofessional organizations and activities, and civic and community service. I'm quite certain that the Chicago Section has a number of excellent candidates for this award. Consider nominating yourself or a coworker that you feel is deserving of this award. For details on how to nominate a candidate please contact the Chicago Section office at 255-3003. Deadline for submission is February 20, 1988.

ENGINEERS WANTED!!

WITH 3-10 YEARS EXPERIENCE
(ANY AND EVERY E.E. FIELD)

For:	Participating in short panel discussions at the Student Professional Awareness Conference (S.P.A.C.)
Topic:	What Do EE's DO? (In the Real Job World)
When:	(Tentatively) January 30th, 1988 (Saturday) 10:00 AM - 2:00 PM
Where:	University of Illinois - Chicago
Reward:	Lunch
Call for Info.:	Cara Lindell Res: 698-0987 Bus: 509-3621

I've had an opportunity to attend several of the chapter meetings and I must say that they have been excellent. In reviewing future programs I noted several of interest and reserved time on my calendar. You might wish to do the same. Some upcoming topics include: computer system grounding, fiber optics, UL standards, cogeneration, superconducting materials, and RISC microprocessors to name a few. Watch SCANFAX or your chapter or subsection mailings for details. Not only will you find the technical meetings stimulating, you'll also enjoy the conversation and contact with your professional peers.

Ed Barrett

Section Chairman



Farnsworth Computer Centers

Villa Park Store - 120 West North Ave.
Sales - (312) 941-3444

Aurora Store - 1891 N. Farnsworth Ave.
Sales - (312) 851-3888

MEETING NOTICES FOR SCANFAX

All meeting notices submitted to SCANFAX must be legible, in ink or typewritten, and must include (not for publication) the submitters name, and home and work telephone numbers. Any submissions that do not meet these criteria will be published "exactly" as submitted, ie, photographically reproduced "exactly" as received. The editor has had it with illegible pencil scrawls and last minute undecipherable phone messages. My secretary is not here to take IEEE meeting notices! The following information MUST be included on all meeting notices:

- NAME OF ORGANIZATION (CHAPTER, SOCIETY, SUBSECTION, ETC)
- TITLE/TOPIC/SUBJECT (SELF-EXPLANATORY)
- SPEAKER (NAME, TITLE, SHORT BIOGRAPHICAL SKETCH IF DESIRED)
- DATE (DAY OF WEEK, MONTH, DATE, IE, TUESDAY, APRIL 5)
- PLACE (WHERE - BE SPECIFIC, USE MAP IF NEEDED)
- TIMES (SOCIAL, DINNER, MEETING, ETC)
- RESERVATIONS (IF NEEDED, CONTACT PERSON, CONTACT PHONE NUMBER, DEADLINE)
- TEASER ON NEXT MEETING (DATE, TOPIC, ETC) I'LL USE IF THERE IS ROOM

HR Hofmann

SCANFAX DEADLINES

ISSUE	COPY DUE	MAILED ON
Jan. 1988	Nov. 30	Dec. 15
Feb.	Dec. 28	Jan. 15
Mar.	Jan. 25	Feb. 15
Apr.	Feb. 29	Mar. 15
May	March 28	April 15
June	April 25	May 15

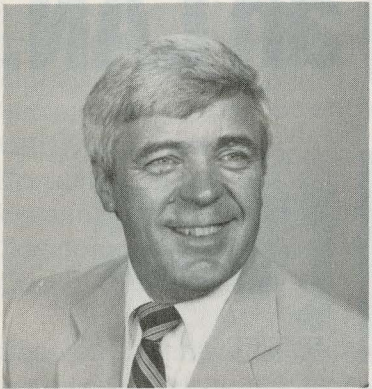
MUELLNER CONSULTANTS

on-site seminars software development

- C Language — LISP — CAD
- UNIX (trademark of AT&T)
- M68000/10/20 — Pascal
- 8086/88/286/386 — Graphics

Call: Dr. Muellner 312-279-4100, X206

IN MEMORIAM



J. Clifford Torbert, Jr. Born Aug. 5, 1929, in Upper Darby, Pennsylvania, died May 21, 1987, in Arlington Heights, Illinois. Cliff, as he was known to his friends, had been a member of the IEEE since 1961 starting with the Philadelphia Chapter. He was Chairman of the Professional Group on Parts, Materials and Packaging in 1965-66, in addition to being a member of the Philadelphia Section Executive Committee from 1962 until 1970. In 1971 Cliff became a member of the Boston Chapter's Professional Group on Electron Devices. In 1972 Cliff moved his family to Arlington Heights and became active again in the Electron Devices Society, becoming Chairman in 1983. He was also a member of the Chicago Section Executive Committee until his death in 1987.

Cliff joined the Naval Reserve after High School but was drafted into the Army in 1951 and served with the Army Signal Corp doing radar maintenance until 1953. Cliff attended Penn State in 1949-50, and returned to school after his Army service. He attended Drexel University, receiving a BSEE in 1960. Cliff continued working towards an MBA at Drexel, completing about two-thirds of the requirements.

Cliff worked at RCA Defense Electronics Products in Camden, New Jersey, from 1953 until 1970. At RCA, he was involved in reliability and screening of components for various space and military electronics projects. In 1970 he moved to Marlboro, Mass., with RCA in their Computer Systems Group. In January, 1972, Cliff joined Honeywell Corporation, and moved with his family to Arlington Heights. At Honeywell, Cliff developed and maintained several on-line computer based Parts Management and Production Materials Management Systems.

While living in Arlington Heights, Cliff was an active member of the Southminster Presbyterian Church where he was an Elder on Session for 6 years, 3 years of which he was Clerk of Session. He was on numerous other committees that included the Christian Education, Membership, Long Range Planning, and Pulpit Nominating Committees. He also taught Sunday School to senior high school students. He was also involved with his daughters in Indian Princesses and other activities for young people. Cliff was also a member of the Northwest Suburban Toastmasters for five years and president for one year.

Cliff leaves a wife, Isabell, whom he married in 1956, and three children: Lisa, Jennifer and Robert.

We in the Chicago Section and our local communities miss Cliff's ready smile and willingness to take on more responsibilities. I, in particular among other things, miss the companionship on long winter and summer nights and our trips back and forth to Chicago Section Executive committee meetings during the past fifteen years.

With Fondest Regards,

George Stout

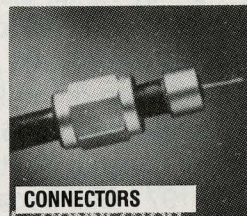
From Rebuilding Industrial America to Installing an LAN...



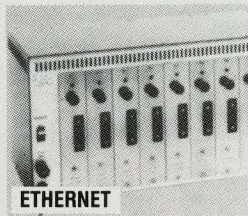
POWER CABLE



COAXIAL CABLE



CONNECTORS



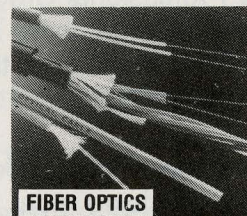
ETHERNET



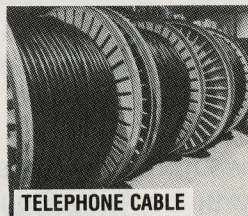
IBM CABLING SYSTEM



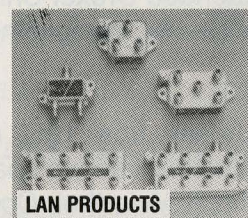
D-4 CHANNEL BANKS



FIBER OPTICS



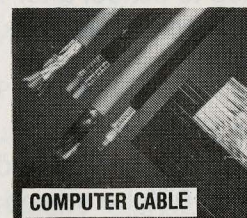
TELEPHONE CABLE



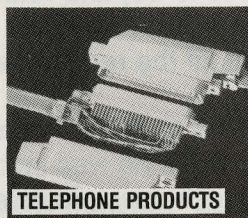
LAN PRODUCTS



NEVADA WESTERN



COMPUTER CABLE



TELEPHONE PRODUCTS

... ANIXTER is your answer for power cables, building wire and Business Communications Products.

Anixter is America's #1 source for electrical and electronic wire and cable and business communications products.

An on-line, real time computer system

provides customers with instantaneous access to Anixter's huge inventory—deliveries are made within hours of receipt of the initial order.

For the Anixter stocking location in your area, consult the Yellow Pages under "Wire" or under "Telephone Equipment and Systems."

ANIXTER

Wiring Systems Specialists

Voice • Video • Data • Power

CORPORATE HEADQUARTERS: ANIXTER BROS., INC. • 4711 Golf Road, Skokie, IL 60076 • (312) 677-2600 — Telex 289464

©1987 Anixter Bros., Inc.

Chapters in Trouble

Headquarters has notified the Chicago Section that the following chapters have been inactive for the past three years.

Acoustics Speech and Signal Processing
Broadcast Technology
Nuclear and Plasma Sciences
Vehicular Technology
Consumer Electronics
Instrumentation and Measurement
Components Hybrids and Manufacturing Technology
Control Systems

Chapters that have been inactive for three consecutive years are dissolved by headquarters. If we act quickly we can still save these chapters. A few volunteers are all that are required as officers of these chapters and two technical meetings per year. The Chicago Section can assist in planning and holding the technical meetings but volunteer officers are a must. These must come from you the members. To help us get these chapters back on the road to success please contact Ed Barrett, 455-6100 or Joe Feitler, 979-8023. Together we can make a difference.

Ed Barrett,

Chicago Section Chairman

Section Congress

The Chicago Section recently participated in the three day 1987 Section Congress in Garden Grove, California. Of the 260 sections world wide, 210 attended the congress with 176 sections from the United States represented. Delegates from region 4 started their day at 6:30 AM with a working breakfast meeting. This was followed by a long day of meetings, including working lunches and the opportunity to meet the IEEE executive committee informally in the evening.

This format provided the opportunity to have direct discussions with headquarters regarding section programs and problems. We also took the time to praise IEEE when appropriate. The format and international representation was interesting in that we could consider the particular needs or hardships of our colleagues in Asia, Europe, Canada, and other regions.

The Chicago section had particular interest in discussions related to careers issues, section finances, major conferences, officer training and distinguished speakers availability for local chapters. We also expressed concern for the relationship between the societies and local sections as well as the IEEE satellite conference program.

As a result of the three day program 23 recommendations were made with ten falling in the general category of program support for sections, chapters and members. The remaining recommendations can be generally categorized as enhancing continuing education world wide. Each of the 23 recommendations were voted on by the delegates and are to be prioritized by headquarters and developed into action items. The delegates all felt another section congress should be held in three years to evaluate progress from this congress and set new goals for into the 1990's. See the vice-chairman's report for details on the recommendations.

Ed Barrett,

Section Chairman

Champaign, IL — For engineers in the Chicago area, the University of Illinois at Urbana-Champaign, College of Engineering is offering seven graduate-level engineering courses via videotape. Courses are tentatively scheduled to meet at the College of DuPage in Glen Ellyn on weekday evenings, beginning the last week of January, 1988.

The courses scheduled for the 1988 spring semester include: Electrical Engineering 310, "Digital Signals and Systems"; Electrical Engineering 354, "Antennas"; Electrical Engineering 364, "Power Electronics"; Electrical Engineering 386, "Control Systems I"; Industrial Engineering 350, "Computer-Aided Manufacturing Systems"; Mechanical Engineering 336, "Automotive Vehicle Dynamics"; and Theoretical and Applied Mechanics 328, "Mechanical Behavior of Composite Materials".

All of the courses except EE 386 and IE 350 are offered for 3 hours of undergraduate credit, or $\frac{3}{4}$ unit graduate credit. EE 386 is offered for 4 hours of undergraduate credit or 1 unit graduate credit. IE 350 is offered for 3 hours undergraduate credit or $\frac{3}{4}$ or 1 unit of graduate credit.

University of Illinois videotape courses are also available for rental or purchase. For further information about the courses, enrollment requirements, or rental/purchase, contact the University of Illinois at Urbana-Champaign, Office of Continuing Engineering Education, 422 Engineering Hall, 1308 West Green St., Urbana, IL 61801, (toll-free) 1-800-252-1360, ext. 6634, or 1-217-333-6634.

A Message From Your Section Vice Chairman

Please remind your Chapter/Subsection Secretary to submit all outstanding 1987 meeting reports to Bob Schrage, our Section Secretary, ASAP so that your group can get full Headquarters rebate credit. Also make sure your proposed 1988 budget has been submitted by your Chapter/Subsection Treasurer, or Section Committee Chairperson to avoid potential embarrassment later on.

Ed Barrett and I attended the IEEE Sections Congress recently where we met many people from across the world and from Hq. The resulting recommendations are shown below.

Develop on-line access to the Headquarters data base! Many Sections have PC's available and IEEE should be utilizing current technology to improve its operations in the field.

Create a task force to investigate ways to assist weak Sections with the development of their programs and to strengthen their operation.

Develop methods to improve the Section/Student Branch interface.

Provide access to Society programs resources for Sections without Chapters and also to accommodate needs of non-U.S. Sections.

Make audio-visuals more accessible and affordable. Simplify access by establishing single point of contact at HQ and make all materials available in all video formats. Make tapes available on rental basis and provide previews for advance selection.

Reduce the cost of video tape productions by utilizing volunteer speakers, taping of presentations at Section meetings and by tour speakers. Also develop short tapes on "Cutting Edge" topics.

Joe Feitler

Notify Sections, on a timely basis, of all IEEE conferences and events planned for the Section's territory and provide the Sections with the opportunity to participate and derive financial benefit from their participation.

Improve the understanding of IEEE on the part of industry.

Explore cooperative IEEE/national engineering society memberships or at least shared benefits on a world-wide basis.

Develop an Institute-wide speakers bureau with information made readily available on a centralized data base, either on-line or via diskettes or telephone.

The data base should contain an abstract, speakers resume, resources required by the speaker (cost involved) and the system should include a method for the Sections to supply evaluation feedback.

SPECTRUM should carry more career development material: career column, yearly salary information and results of the careers conference.

IEEE should carry more information and programs of interest to members separated from employment or forced into early retirement.

The IEEE Sections should be given the right of first refusal to show and to market videoconferences within their geographical area.

A mechanism should be established to enable Sections to regularly share experiences on educational activities.

A two-way communications channel should be set up between Regions 8 to 10 and those parts of IEEE responsible for forward planning of educational material to enable the Regions to express their needs and influence the final decisions.

Educational material content should be planned for expressions in different media, as may be required by a Region, to enable costs to be adapted to local resources and provide better possibilities for electronic transmission and local reproduction.

Progress on the IEEE Academy pilot study should be regularly reported in "The Institute."

The earliest IEEE Academy "students" must have access to the full testing and mentoring services planned as part of the regular Academy procedures.

IEEE should provide lists of Section/Chapters who have experienced or solved similar problems.

TAB, RAB and EAB should provide better Chapter/Section support.

The IEEE Electronic Communications system should include CD ROM data base capability for all IEEE transactions collectively and educational material.

IEEE should specify standards and guidelines for evaluating and designing educational tutorials for self-produced or "brokered" programs.

Since the cost of educational material added to the membership fee is not affordable by some potential members, the membership fee should be reduced by 70% for persons with income less than \$2,000 per annum, together with some free society membership.

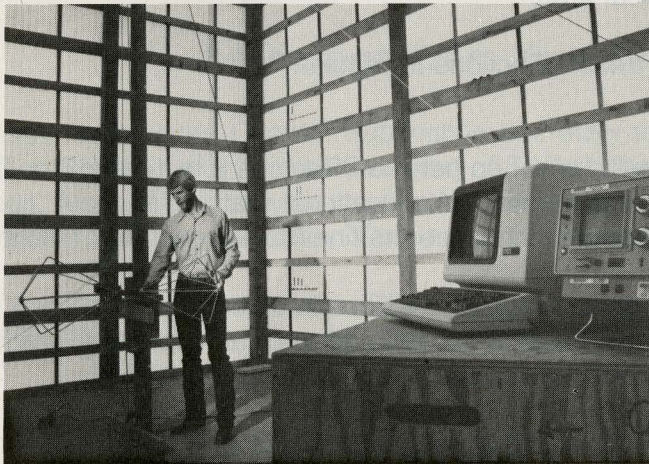
Look what makes D.L.S. the #1 test house for a growing number of engineers throughout the U.S.A.



Approved by the National Bureau of Standards

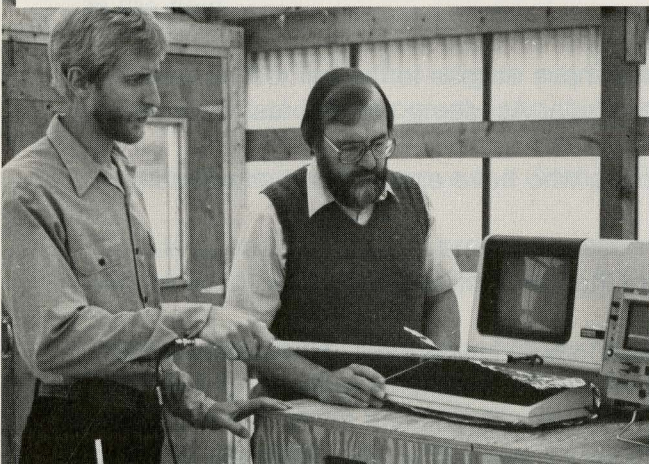
D.L.S. is proud to be recognized by the National Bureau of Standards as an accredited FCC test facility. Being approved by NBS is one of the best ways to assure clients of both the validity of our test results, and our adherence to the stringent requirements of the FCC. To obtain NBS approval, not only were our testing procedures and test equipment closely inspected, but also comprehensive investigations were held at our Glenview lab and open field site. In addition, the NBS also conducted in-depth interviews with our test engineers.

D.L.S. provides a wide array of testing and consulting services including FCC parts 2, 5, 15 (subparts J, H, and others), 18, and 68, and VDE including 0871 and 0875. In addition, D.L.S. also provides Mil Std 461 emissions and susceptibility testing and its commercial counterpart which includes MDS, Bell Stds., and others.



Two open field sites to serve you better

D.L.S.'s Genoa facility has been expanded to include a second test site. The site was carefully chosen because of the low ambient level of RF energy and because it meets the requirements of FCC Bulletin Ost 55. In addition, significant improvements have been made to our original all-weather test building. It is now totally climate controlled incorporating heating and air conditioning. We have also increased our electrical service so that we can continue to provide complete, professional testing to meet your growing demands.



In-depth problem solving

Because our highly trained and knowledgeable staff is regularly involved with radiated, conducted and susceptibility testing, their in-depth experience can be the key to solving your particular problem. Once the problem area has been identified, they utilize D.L.S.'s vast inventory of materials to bring your product into compliance. This results in the fast, efficient turn around time and cost effective solutions our customers have come to expect.

High quality testing

As you would expect from an NBS accredited test house, D.L.S. prides itself on its up-to-the-minute awareness of, and absolute conformity to, the latest rules and regulations. This total involvement assures you of thorough, professional test results you can depend on.



10350 Dearlove Road, Glenview, IL 60025 (312) 699-9060