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Glen Ellyn, Illinois

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TIME SENSITIVE MATERIAL

CALENDAR OF EVENTS

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

FEB.	5	"Chicago Electl. Code vs. NEC"	Power Engrng. Soc.	Carson Pirie Scott Wabash & Monroe Sts. Highland Rm., 8th Fl.	Social Lunch Meeting	11:30 AM 12 Noon 12:30 PM
	6	"1986 Planning Meeting" ALL WELCOME	Reliability Soc. (Res., W. Foxwell, 953-1300, x280)	Casey's Restaurant 415 W. North Ave. Lombard, IL	Social Dinner Meeting	5:30 PM 6:15 PM 7:15 PM
	11	Monthly Meeting ALL WELCOME	IEEE Executive Cte.	Allen-Bradley Company 910 Pasquinelli Dr. Westmont, IL	Meeting	7:30 PM
	12	"The IEEE & the NEC"	Industry Appls./ Industl. Electronics Society	Mr. Peter's Restaurant 1018 Mount Prospect Rd. Mount Prospect, IL	Social Dinner Meeting	5:30 PM 6:15 PM 7:15 PM
	16-22	36th Annual National Engineer's Week - "Engineers: Turning Ideas into Reality"				
	26	"Automotive Diagnostic Systems"	Fox Valley Subsec.	Wilton Manor 2200 Main St. Wheaton, IL	Social Dinner Meeting	6:00 PM 7:00 PM 8:00 PM
	26	Applications of Artificial Intelligence	IEEE	IIT- Call Eleanore 236-4609 for registration	9:30 AM - 3:00 PM	
MAR.	11	Monthly Meeting ALL WELCOME	IEEE Executive Cte.	Allen-Bradley Company 910 Pasquinelli Dr. Westmont, IL	Meeting	7:30 PM
	12	"Reliability Considera. in Semiconduc. Tech."	Industry Appls./ Industl. Electronics Society	Mr. Peter's Restaurant 1018 Mount Prospect Rd. Mount Prospect, IL	Social Dinner Meeting	5:30 PM 6:15 PM 7:15 PM
	12	"Lighting Applications & New Developments"	Power Engrng. Soc.	Carson Pirie Scott Wabash & Monroe Sts. Highland Rm., 8th Fl.	Social Lunch Meeting	11:30 AM 12 Noon 12:30 PM

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-ADV-

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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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979-3627

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979-5824

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(312) 236-4609

Change of Address

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

FOX VALLEY SUBSECTION

WEDNESDAY, FEBRUARY 26, 1986
WILTON MANOR

AUTOMOTIVE DIAGNOSTIC SYSTEMS

Modern automobiles are comprised of many electronic devices. Sensors and actuators are used by the on-board computer to control engine systems, for both carburetion and fuel injection. These electronic devices, plus the diagnosis of the various systems, such as fuel injection will be presented. If time permits, the highlights of the 1986 Buick Riviera which has several on-board computers and a CRT (Cathode Ray Tube) will also be discussed.

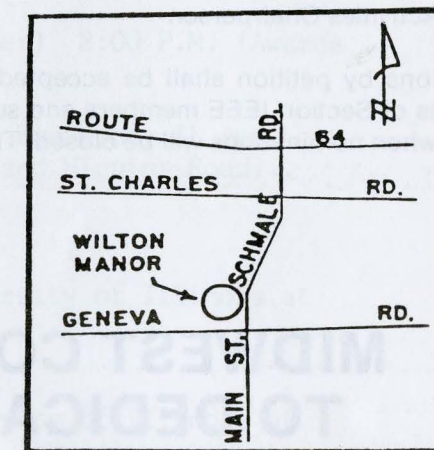
John Thornton is currently an Automotive Instructor at Triton College, River Grove, IL. He is also a G.M. (General Motors) ASEP (Automotive Service Excellence Program) instructor. John was formerly a Senior Test Engineer with Sun Electric Corporation. Mr. Thornton has been a guest on radio talk shows, lectured for Advanced Computer Engine Controls Seminars, and is an ASE Certified General Automobile Mechanic. He received a B.S. Mechanical degree from Bradley University, Peoria, IL.

Place: Wilton Manor

Location: 2200 Main Street
Wheaton, IL
(See Map)

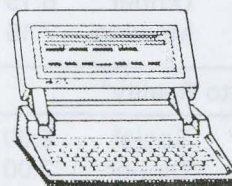
Time: Cocktails - 6:00 PM
(Cash Bar)

Dinner - 7:00 PM
Meeting - 8:00 PM



Please call (312) 236-4609 for dinner reservations no later than Monday, February 24. If you cannot attend the dinner, please feel free to come to the meeting.

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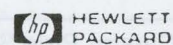
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IBM Terminal Emulator Card for HP-150	585	1200
Series 100 Software		
HP Series 100 Basic	145	395
HP Series 100 Compiled BASIC	195	395
Multiplan for HP-150	135	275
Wordstar for HP-150	245	500
MemoMaker for HP-150	80	160

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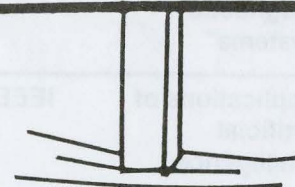
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MIDCON PLANNING COMMITTEE

HOLDS MEETING

The MIDCON planning committee held a meeting on Monday, December 9th, 1985 at the Hyatt Regency O'Hare. The purpose of the meeting was to elect officers and develop an agenda for the February planning meeting. The planning committee is concerned with planning objectives for MIDCON 87 which will be held in Chicago in September of that year. At this meeting Ray Puzerewski was elected Chairman and Paul Jahn was elected Vice

George M. Thomas

Chairman. Ray's sponsoring organization is ERA while Paul represents the Chicago Section of IEEE.

IEEE representatives attending this meeting were John Lightner from Region 4, Paul Jahn and George Thomas from the Chicago Section and Mary Alys Lillard from the Dallas Section. The next planning committee meeting is scheduled for February 11th, 1985.

NOMINATING COMMITTEE REPORT

The nominating committee chaired by George Thomas met in December to develop a slate of officers for the executive committee for the 1986-87 term. The committee, also comprised of Bill Everson, Howard Wolfman and Dennis Lamont proposes the following candidates:

Chairman	Bert Orszula
Vice Chairman	Ed Barrett
Treasurer	Terence Sumner
Secretary	Andy Gasiorowski
Finance Chairman	Robert Schrage
Professional Activities	John Waters
Program Chairman	Len Cohen
Publications Chairman	Robert Hofmann
Special Events	George Stout
Conference Chairman	Howard Wolfman
Membership Chairman	Henry Dwyer
Student Activities Chairperson	Cara Lindell

Nominations by petition shall be accepted by the Section Executive Committee if accompanied by ten or more signatures of Section IEEE members and submitted to the Section Secretary by the February Executive Committee Meeting when nominations will be closed. The ballot for the election will appear in the April issue of SCANFAX.

George Thomas

MIDWEST COLLEGE OF ENGINEERING TO DEDICATE COMPUTER CENTER TO DR. JOHN D. JOHANNESSEN

Lombard, IL, Dec. 9 — Midwest College of Engineering today announced that it will dedicate its computer center as a memorial to Dr. John D. Johannesen, its former president. The dedication is set for Saturday, April 26, 1986, at 3:00 p.m. on the main campus in Lombard.

Dr. Johannesen served as the second president of Midwest College from 1982 to 1984 following his retirement from AT&T where he had been associate executive director of the electronic switching system (ESS) division of Bell Laboratories in Naperville.

"Midwest College made great strides during Dr. Johannesen's short tenure. He left us a priceless legacy. He spearheaded the development of the computer center we are dedicating to his memory. He also directed a complete revision of our curriculum to keep Midwest College at the forefront of the state of the art in engineering education and launched the first computer engineer-

ing degree program in this area," said Albert H. Budlong, president of Midwest College, who served as dean of the College under Dr. Johannesen and was a colleague at Bell Laboratories.

Dr. Johannesen initiated the College's current development program to accommodate an expected doubling of enrollment in the next five to seven years, and to double again by the year 2000. He was also instrumental in AT&T's choice of Midwest College as the first academic site for its 3B5 super-minicomputer. That contribution in turn led to AT&T's donation announced this week of five 3B2 super-microcomputers, valued at \$70,000, which is the largest single gift the College has received, said Budlong.

A number of Dr. Johannesen's former colleagues from the science and engineering community are expected to take part in the ceremony.

1986 IEEE RECOGNITION DINNER

The IEEE Chicago Section will hold its 1986 Recognition Dinner on Saturday, April 12, 1986 at the Westin Hotel O'Hare - 6100 River Road, Rosemont, IL.

This 1986 Recognition Dinner is special as the Chicago Section will be honoring five Fellow Awardees and also Student Awardees from our local Universities.

The success of this event is dependent on the supporting contributions of Electrical and Electronic Companies in the Chicago area and the attendance of IEEE members and guests. An excellent dinner and entertainment will be provided. Tickets are \$30.00 per person. Please make your reservations early.

Dinner Committee members are: Chairman Frank Lakowski, United Chemi-Con Inc.; Secretary Ed Smith, United Chemi-Con Inc.; Treasurer C. Trevor Hinchliffe, Flolo Electric Co.; Tickets/Arrangements John Murray, Zenith Microcircuits Corp.; Solicitations Mary Stefanich, Zenith Microcircuits Corp. and Leonard Wislow, Beco Corporation; IEEE Section Coordinator, George Stout, GPE Controls; Institutional Coordinator Andy Gasiorowski, Allen-Bradley Co.

Date: Saturday - April 12, 1986

Time: 6:00 P.M. (Cocktails) 7:00 P.M. (Dinner) 8:00 P.M. (Awards followed by Entertainment & Dancing)

Place: Westin Hotel O'Hare - 6100 River Road, Rosemont, IL (on River Road between Kennedy Expressway and Higgins Road).

Entertainment: To be announced.

Fellow Awards: Professor Gyan Chand Agarwal, University of Illinois at Chicago;
Dr. Shi-Kuo Chang
Mr. Warren H. Cook
Professor James Chih-I. Lin, University of Illinois at Chicago;
Dr. Frank G. Splitt, Northern Telecom Inc., Cook Electric Div.

Student Awards to be announced.

Mail Reservations to: John E. Murray, Tickets/Arrangements Chairman, IEEE Recognition Dinner, Zenith Microcircuits Corp.,
Subsidiary of Zenith Electronics Corporation
1851 Arthur Ave.
Elk Grove Village, IL 60007-6066
(312) 956-1550

Enclosed is my check in the amount of \$ _____ covering _____ tickets at \$30.00 each for the 1986 IEEE Recognition Dinner at the Westin Hotel O'Hare, Rosemont, IL.

NAME _____

FIRM _____

ADDRESS _____ PHONE _____

CITY/STATE _____ ZIP _____

Make checks payable to: IEEE Recognition Dinner. Please mail by March 29, 1986

A SPECIAL WORD

To those of you who responded to my letters of November 13, 1985 asking for volunteers for the various Societies within the geographical area of the Chicago Section: THANK YOU! Replies have been heart-warming and enthusiastic.

It's a good start, but we still need more.

In those cases where an acting chairman is available, your names have been forwarded to them and you should be hearing from them directly.

In all other cases, I will contact you to arrange a meeting so that you can get to know one another and can get your group going.

Again, thank you,

Bert Orszula

RELIABILITY CONSIDERATIONS IN SEMICONDUCTOR TECHNOLOGY

IAS March 12 Meeting

**Professor Nasher Khorl
Motorola Communications Sector
Schaumburg, Illinois**

An analytical method has been described whereby a cost effective burn-in yield criterion can be determined for plastic encapsulated integrated circuits. The method assumes a simple approximation for infant mortality during burn-in and predicts the failure rate of the residual parts based on the yield percentage. The conclusions are shown to be consistent with the available data. The mathematical expressions developed in this analysis can be used in reverse to set an upper limit to the percent fall-out through burn-in to ensure, with some degree of accuracy, the quality level or the upper limit of the expected failure-rate of the surviving population.

MIDCON INSTALLATION OF DIRECTORS

-George Thomas receives a MIDCON director's pin from Jim Ralston, outgoing director and past Chairman of the Board for MIDCON. George replaces Jim as one of the two appointed directors from the Chicago Section. Paul Jahn is the other MIDCON director from our section. The installation of new directors was accomplished at the MIDCON annual meeting in November. Also at that meeting, John Lightner was installed as director replacing David Pivan as the appointment from Region 4. George Thomas, Jim Ralston and Paul Jahn are all former chairmen of the Chicago Section.

Scanfax Deadlines—Copy for Scanfax must be received by Eleanore or the editor by the following dates. Information **must** include IEEE relationship if not clearly an IEEE function, and the **home** and **business** telephone numbers of the person submitting the information. Failure to provide this information may result in non-publishing of the entire article. Scanfax is a voluntary magazine, and incomplete information may be cut out in the interest of preserving the editors and assistant editors full-time jobs.

H R Hofmann - Editor

Scanfax Copy
March Scanfax -
April Scanfax -
May Scanfax -

Deadlines
Jan. 27, 1986
Feb. 24, 1986
March 24, 1986

Mailing Dates
February 17, 1985
March 17, 1985
April 15, 1985

INDUSTRY APPLICATIONS SOCIETY INDUSTRIAL ELECTRONICS SOCIETY

February 12, 1986 Meeting

"The IEEE and the NEC" by Milton D. Robinson

Every three years the National Electrical Code is reviewed, revised, and re-issued and the 1987 edition of the NEC is now in the final stages of that process. For the last several editions of the Code, the IEEE has taken an active and important role in the deliberations that lead to each new revision. Mr. Robinson will briefly review the history of that gradual involvement and will describe the manner

in which the IEEE handles proposals from IEEE members. The entire code-making process will be discussed and emphasis will be placed on how individual electrical engineers can alone and collectively make their ideas and problems with the NEC best known. If time permits some of the most important changes proposed for the 1987 code will be outlined.

Biographical Sketch — Milton D. Robinson

Milton D. Robinson is President of Milt Robinson Engineering, a consulting engineering firm in Merrillville, Indiana specializing in industrial and commercial power distribution systems and control.

Recently retired from International Harvester, he also was a field supervisor for United Engineers and Constructors, and Superintendent of Electrical Maintenance, and then Chief Electrical Engineer for Acme Steel in Illinois.

Mr. Robinson is a Life Senior Member of the IEEE, a

Vice-Chairman of the Industrial Applications Society (IAS) Industrial and Commercial Power Systems Department (I&CPSD), Past Chairman of the I&CPSD Industrial Plants Power Systems Committee and Codes and Standards Sub-Committee, and a member of IAS Power Engineering Committee, and IAS Subcommittees on Power Systems Planning and Design, Cable and Busway Systems, Medium Voltage Protection, and Maintenance, Operation, and Safety. He is the IEEE representative to Code-Making Panel 13 (Articles 450, 460, 470, and 710) of the National Electrical Code, and is a Registered Professional Engineer in the state of Indiana.

Schedule:

5:30 Cash Bar
6:15 Dinner
7:15 Technical Program

Location:

Mr. Peters Restaurant
1018 Mt. Prospect Ave at Rand & Central
Mt. Prospect Shopping Plaza
Mt. Prospect, IL

Reservations: Please call the Electric Association, 236-4609 to make dinner reservations by noon, Monday, February 10, 1986. The cost for dinner for IEEE members is \$12, for non-members, \$13. There is no charge for anyone wishing to attend only the technical program portion of the meetings.



Jim Ralston, outgoing Chicago Section Representative, receives an appreciation plaque from Chairwoman Mary Alys Lillard.

MIDCON/86

Do YOU have an interesting idea for a Professional Program Session for Midcon/86? If so, we'd like to hear from you. The Midcon/86 Professional Program Committee invites YOU to propose a SESSION to be presented to attendees of Midcon/86, September 9-11, in Dallas, TX.

This "Call" is for submission of proposals for SESSIONS (NOT INDIVIDUAL PAPERS) — a cohesive collection of papers complementary in nature and making a comprehensive presentation on a subject of interest to the electronics community. A SESSION consists of a minimum of four and a maximum (due to time limitations) of five papers.

Topics should be of interest to the practicing technologists who make up the general audience of Midcon/86, and should show practical applications or updates of the State-of-the-Art of Electronics, emphasizing, current or near-term advances, trends and applications of electronic technology and product manufacture. Either the tutorial or survey approach may be used.

NEW APPLICATIONS ARE WELCOMED.

Midcon — and this is true of both the Professional Program and Exhibition — is a horizontal show, covering many aspects of electronics technology. A Session concentrating on a narrow topic is welcome but the Professional Program will include a broad range of subjects.

Each Session at Midcon/86 will be two hours in length, so your planning must take the time requirement into consideration.

ALL speakers in your Session — if it is accepted for the Program — will be required to submit appropriate abstracts and manuscripts in advance.

Broad fields of interest include, but are not limited to:

Aerospace Electronics
Array Processing
Artificial Intelligence
Avionics
CAE/CAD/CAM/CAT
Communications and Networks
Components and Devices
Computer Hardware, Software and Peripherals
Computer Languages
Consumer Electronics
Custom and Semi-Custom LSI/VLSI
Data Base Management
Design for Maintainability
Displays and Display Systems
Distributed Computing
Electro-Optical Systems
Electronic/Microelectronic Packaging
Electrostatic Discharge Control
EMI/RFI
Engineering Management
Engineering Productivity
Engineering Workstations
Entrepreneurship and Venture Capital
Expert Systems
Factory Automation
Fault Tolerant Systems
Fiber and Integrated Optics
Graphics
Human Factors/Ergonomics
Image Processing and Pattern Recognition

In addition to oral presentations at the Conference, individual papers are published in two formats: Session Records, containing all the papers presented in an individual Session, and the Conference Record, a hard-bound volume containing all the papers presented at the Conference. Session Records are available, on site, for interested attendees. The Conference Record is distributed, following the Conference, to technical libraries throughout the United States and in many foreign countries.

For this reason,
MANUSCRIPTS ARE REQUIRED IN ADVANCED.

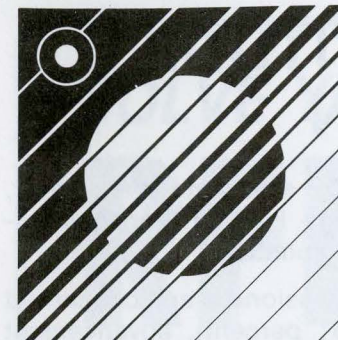
Author-Speakers who fail to submit a manuscript in time for inclusion in the Conference Record will not be permitted to speak at Midcon/86.

Accepted SESSION Proposer/Organizers receive full staff support from the Midcon administrative office; detailed instructions and information on preparation of both written and oral presentations are provided each Author-Speaker. Session Records are provided on a complimentary basis to all program participants.

The Committee hopes you will accept this invitation to submit a SESSION proposal. To submit a SESSION Proposal, please phone 800-421-6816.

The Committee may choose to select some proposals for development as Premier Sessions. Premier Sessions are repeated two or three days. To help the Committee in the selection and development of Premier Sessions, we need to know if your potential author-speakers can and will be available to participate two or three days of the show. Please indicate on the form if you wish your proposal to be considered for Premier Session status.

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Signal Processing
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Speech Processing
Supercomputers
Surface Mounted Devices
System Security
Telecommunications
Testing
ULSI/VHSIC
Other subjects of general interest are welcome



IEEE VIDEOCONFERENCES
SEMINARS VIA SATELLITE

INTENDED AUDIENCE:

The intended audience for this presentation includes both technical and non-technical managers concerned with planning artificial intelligence applications, and with engineers and programmers concerned with implementing artificial intelligence.

SUPPORTING DOCUMENTATION:

- A Complete Set of Notes
- Charts
- Bibliographies
- Presenters' Biographies

1986 TOPICS:

High Technology Production:
Strategies
May 8, 1986

Process and Adaptive Control
September 24, 1986

Data Communications Systems
December 4, 1986

LOCAL INFORMATION:

Location. Time. Fees.

Time: 9:30 am - 3:00 pm

Location: Stuart Bldg.
Ill. Inst. of Tech.
10 W. 31st St. Chi.

Call Eleanore at
(312) 236-4609
for more details



IEEE 13th Videoconference

APPLICATIONS OF ARTIFICIAL INTELLIGENCE

February 26, 1986 11:00 A.M. - 4:00 P.M. Eastern Time

The fundamental assumption behind Artificial Intelligence (AI) is that thought is a form of computation. Hence the goal of work in AI is to discover how to build computer systems that can be put to new uses: those that duplicate human intelligence behavior. AI has considered a broad range of areas. This seminar will focus on four of the most active areas of AI research. These areas are attracting a great deal of attention as useful applications emerge from them. The areas are Expert Systems, Natural Language Understanding, Vision and Learning.

PROGRAM OUTLINE

Dr. Harry Tennant

Introduction to Artificial Intelligence

- What is AI?
- Areas of investigation in AI
- Results embodied in programming systems
- Results embodied in intelligent systems

Dr. Peter Szolovits

Expert Systems

- The value of capturing human knowledge
- Current approaches to building expert systems
- Beyond the rule-based paradigm
- Engineering expert systems to user needs
 - Explanation
 - Styles of interaction
- Current research directions

Dr. Harry Tennant

Natural Language Processing

- Natural language interfaces
 - Goals of natural language interfaces
 - Natural language interfaces vs other forms of user interaction
 - Problems with natural language interfaces
 - Menu-based natural language interfaces

- Text understanding

The potential of test understanding
Why text understanding is so hard
Structure of language
World knowledge
Incremental approaches to text understanding

Dr. Alex Pentland

Vision

- Computer representation of 3 dimensional shapes
- Fractal-based description and analysis of complex natural shapes
- Recovery of 3-D shape from visual attributes
- Controlling computational complexity in computer vision
- Applications of 3-D modeling
 - Computer graphics
 - CAD
 - Machine vision

Dr. Tom Mitchell

Learning

- Overview of machine learning
- Generalizing from examples:
 - Empirical data intensive methods
 - Analytical knowledge intensive methods
- Learning search heuristics
- Incorporating learning into knowledge-based consultants
- Summary and conclusion

ADVANCE REGISTRATION REQUIRED

Fee: \$45 IEEE members/\$60 nonmembers
includes conference notes, buffet lunch
and refreshments. Send registration form
and full payment to: IEEE Room 1545
125 S. Clark St. Chicago, IL 60603

REGISTRATION FORM

Please register me for the "Applications of Artificial Intelligence" videoconference on February 26, 1986.

Name _____

Title _____

Company Name _____

Company Address _____

_____ Zip _____

Company Phone _____ Home Phone _____

IEEE Member Number _____ Fee Enclosed _____

SURVEY REVEALS NEGATIVE ATTITUDE TOWARD DP UNIONIZATION

PARK RIDGE, IL, December 5, 1985 — Unions are not likely to gain any foothold in corporated DP/MIS departments and any future attempts to unionize DP shops will be met by strong opposition. These are the key findings of a recent COMP-U-FAX™/ COMPUTER DECISIONS survey of Data Processing Management Association (DPMA) members.

More than 85 percent of the information executives responding expressed antagonistic or indifferent attitudes toward unionization. A majority (90 percent) of the DPMA members surveyed did not report any unionized employees in their shops, while only 13 percent cited actual unionization attempts.

According to the exclusive survey, 69 percent of all unionized DP shops are located in the transportation, utility and communication industries and government agencies.

Sixty percent of all unionized information executives said top management is vehemently opposed to any kind of

unionization activity in the DP environment. However, only 22 percent reported any kind of management-initiated "employee interest committees."

Information processing professionals are concerned most with compensation (51 percent), advancement opportunities (22 percent), workplace environment/comfort factors (13 percent), hours (7 percent) and equipment (4 percent). Other DP concerns cited were continuing education, challenge, job satisfaction, personal growth and job security.

More than 90 percent of the DPMA members do not send labor-intensive work (e.g., data entry) overseas to take advantage of lower wages. Only 2 percent are thinking of sending work overseas in the near future.

Data Processing Management Association (DPMA), with a growing membership of nearly 50,000, is the largest organization representing information professionals worldwide.

CHICAGO SHOWCASE OF ELECTRICAL PRODUCTS LARGEST EVER

McCormick Place will be the site of Electri '86, a triennial exhibit of electrical equipment and apparatus sponsored by the Electric Association. Opening February 26 for a two-day stand, over 10,000 electrical buyers including contractors, distributors, engineers, architects, builders, industrials, inspectors, utilities, and others are expected to attend.

On display in 300 booths will be the newest electrical

equipment and latest application techniques with emphasis on recent energy-saving devices. Bob Turek, Executive Vice President of the Electric Association indicated that Electri '86 is the 19th such exposition sponsored by the 60-year old industry organization headquartered at 125 South Clark Street. Show hours are 2:00 PM to 9:00 PM daily. Tickets, at no charge, will be available in the registration area.

PLACEMENT SERVICE

The Chicago Section is now offering a Placement Service for it 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 (236-4609) 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.

- B14 — IIT (MSEE Comm. Theory) Student - desperately needs to be on the field.
- B15 — General Manager or Marketing Manager electrical equipment manufacturer.
- B16 — Computer Graphics Engineer - interactive systems, image synthesis, animation.
- B17 — Sales/Sales Mgmt Telecommunications - 28 yrs. telephony related experience.
- B18 — Test Engr./Production & Cust. Relations or teach new customers.
- B19 — General Management line or senior level staff - proven record - MSEE, MBA.

If you are an IEEE member and unemployed, call or write for the necessary form. Direct your request to: IEEE Placement Service • 125 S. Clark Street - Room 1545 • Chicago, Illinois 60603.

- B12 — Entry level posi. - exp. in hdwe., micro., digital analog, control sys. look. for field serv., elec'ncs engr.
- B13 — Entry level for MSEE in communication systems or AA.

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