

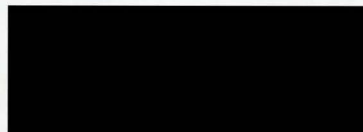


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Official Publication of the Chicago Section • Institute of Electrical & Electronics Engineers • MAY 1992



TIME SENSITIVE MATERIAL

CALENDAR OF EVENTS

For reservations please call IEEE Office at (708) 963-3828 before the stated deadline
Copy Deadline for June SCANFAX is April 28, 1992

April 30 Thursday	IEEE Videoconference	Workstations of the Future: A User's Perspective	College of DuPage 22 & Lambert Rd. Glen Ellyn, IL.	Presentation: 11:00 AM call (708)858-7148 class code 290862150
May 2 Saturday	Chicago Section	IEEE Recognition Dinner	Woodfield Hilton & Towers 3400 W. Euclid Av. Arlington Heights, IL.	Social: 6:00 PM Dinner: 7:00 PM
May 7&8 Thursday & Friday	Chicago Section/ Engineering Management	Project Management Conference/Symposium MANAGING CHANGE '92	Drake Hotel 140 E. Walton Chicago, IL.	Call for Details (708)963-4002
May 12 Tuesday	Chicago Section	Executive Committee	Contemporary Controls 2500 Wisconsin Downers Grove, IL.	Meeting: 7:15 PM
May 13 Wednesday	Power Engineering Society	Globalization of the Electrical Industry: Positive Effects	Chicago Bar Association 321 S. Plymouth Court Chicago, IL.	Social: 11:30 AM Lunch: 12:00 noon Meeting: 12:30 PM
May 13 Wednesday	Communications Society	Cellular Systems	Sharko's Restaurant 2225 Ogden Avenue Lisle, IL.	Social: 6:00 PM Dinner: 7:00 PM Meeting: 8:00 PM
May 13 Wednesday	IAS/IES	Fuzzy Logic: Industrial Control Applications	Omron Electronics, Inc. 1 East Commerce Dr. Schaumburg, IL.	Meeting 7:30 PM
May 13 Wednesday	Northwest Subsection/ Electron Devices Society	CBIC-V & BEST1/BEST2C: High Frequency Bipolar Technology	Wilton Manor 2200 N. Main St. Wheaton, IL.	Social: 6:00 PM Dinner: 7:00 PM Meeting: 8:00 PM
May 19 Tuesday	Fox Valley Subsection/ ASQC/ Reliability Society	Software Quality Metrics in Research & Development	Wilton Manor 2200 Main Street Wheaton, IL.	Social: 6:00 PM Dinner: 7:00 PM Meeting: 8:00 PM
May 27 Wednesday	EMC Society	Radiation Patterns by Method of Moments Antennas & Objects	AT&T Bell Laboratories 2000 N. Naperville Rd. Naperville, IL.	Social: 7:15 PM Meeting: 7:30 PM
May 28 Thursday	IEEE Videoconference	Environmental Issues: Impact to Engineers	College of DuPage 22 & Lambert Rd. Glen Ellyn, IL.	Presentation: 11:00 AM call (708)858-7148 class code 290862150
June 2-5 Tuesday- Friday	Consumer Electronics Society	International Conference on Consumer Electronics	Westin O'Hare 6100 River Rd. Rosemont, IL.	Call for Details (708)963-3828

Registration for each IEEE Videoconference Presentation

Reminder, please call (708)858-7148 to register using class code 290862150. See the March 1992 SCANFAX issue for further details.

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SCANFAX DEADLINES

ISSUE	COPY DUE	MAILED ON
JUNE	APR 28	MAY 15

THESE ARE FIRM DEADLINES FOR ADS AND COPY!!!

UIC The University of Illinois at Chicago

The University of Illinois at Chicago will offer the following graduate-level courses at selected suburban locations during the 1992-93 academic year:

Fall Semester 1992—August 24 to December 11, 1992

ME	412	Dynamic Systems Analysis I
ME	413	Dynamics of Mechanical Systems
ME	522	Convective Heat Transfer
EECS	430	Noise in Analog Communication Systems
EECS	450	Automatic Control I
EECS	480	Database Systems
EECS	576	Object-Oriented Programming Languages and Environments

Spring Semester 1993—January 11 to May 7, 1993

ME	408	Intermediate Vibration Theory
ME	421	Intermediate Heat Transfer
ME	512	Automatic Control of Mechanical Systems
EECS	470	Introduction to Software Engineering
EECS	530	Statistical Communication Theory
EECS	550	Linear Systems Theory and Design
EECS	581	Database Management Systems

Earn your MS degree in Mechanical Engineering (ME) or Electrical Engineering and Computer Science (EECS) in the evening.

Your fall 1992 application for degree admission must be complete by July 3. Contact the Off-Campus Engineering Programs office at (312) 996-2311 for complete details. This schedule is subject to change.



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INDUSTRY APPLICATIONS SOCIETY INDUSTRIAL ELECTRONICS SOCIETY CHICAGO CHAPTER

Location: Omron Electronics, Inc., Schaumburg, IL.
Topic: Fuzzy Logic and its Industrial Control Applications
Date: Wednesday, May 13, 1992
Speaker: Glenn Anderson, Omron Electronics, Inc.
Program: Technical Presentation - 7:30p.m.
Abstract: A new technology has emerged called Fuzzy Logic that is finding new, innovative applications in industry. Mr. Glenn Anderson, Corporate Training Center Manager of Omron Electronics, Inc. will discuss fuzzy logic basics, inference method, inverted pendulum application, and industrial control applications of this technology.
Directions: Take I-90 west until the Roselle Rd. exit. Exit onto Roselle Rd. south. Turn left at Commerce Dr. and report to the Omron Corporate Training Center.
Reservations: This event is a presentation only, however, please make reservations with the I.E.E.E. Office at 708-963-3828.

Meeting of the IEEE Communications Society (Chicago Chapter)

DATE: Wednesday, May, 13, 1992

GUEST SPEAKER: Dr. David C. Opferman, Motorola, Inc.

TOPIC: Cellular Systems

PLACE: Sharko's Restaurant, 2225 Ogden Avenue, Lisle, IL (708) 852-4500

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

Dinner: 7:00 PM - \$13.00

Presentation: 8:00 PM - FREE

RESERVATIONS: Call (708) 963-3828 to make dinner reservations by Monday, May 11, 1992

FURTHER INQUIRIES: For more information, contact Paul Bhugra at (708) 979-1901.

ABOUT THE TOPIC: The Cellular System is a relatively new and rapidly growing telecommunication product that has widespread public approval. These systems are being deployed in basically every country in the world with rapid growth occurring in Asia and South America. The market and architecture for cellular systems will be presented. In addition, future products including digital cellular systems and Private Phase Service (PPS) will be discussed.

ABOUT THE SPEAKER: David C. Opferman is a director at Motorola and is responsible for the development of cellular systems software. In addition, Dr. Opferman has 23 years of experience at AT&T Bell Laboratories in the area of switching systems development (PBXs and Central Office Switches). Dr. Opferman received a BEEE degree from Pennsylvania State University and a Ph.D. in Electrical Engineering from the University of Pittsburgh.

ELECTION NOTICE: This meeting will also serve to elect the 1992-93 officers for the Chicago Chapter of the Communications Society. Nominations for officers should be given to Ken Smolik at (708) 713-1455.

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GREETINGS:

Would you like to help plan a Technical presentation - colloquium, seminar, etc. for late August or early September. Probable location, the Arlington Hilton.

Three days. One day tutorial - teach-in,
One day suppliers with data,
One day open forum, especially with ASQC and IIE buddies.

Topic: **INFLUENCE OF QUALITY OF MANUFACTURE ON MODULES,
ELECTRONIC EQUIPMENT AND SYSTEM RELIABILITY**

Prose and Con jobs! If it fails outgoing test, find out why, but don't fix it, don't ship it, THROW IT AWAY. Fix the problems, not the parts.

Thank you to all who volunteered for the Girl Scout Mentor and Discover E programs. Through your efforts our Outreach programs are gaining great momentum. We are working to develop additional outreach opportunities. If you have an idea, please let me know.

The Chicago Section, with funding from the Professional Communications Society, sponsored a student paper contest. This was a unique paper contest. Not only was it non-technical, but the students could choose a subject and style for their paper on professional communications. We should get some interesting entries and will publish the winners in Scanfax.

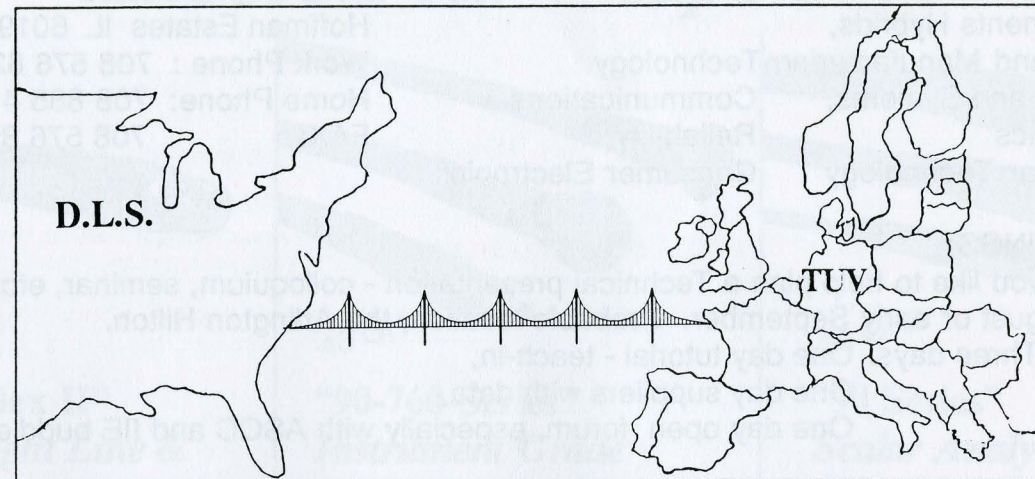
The Section also gave special awards at the Chicago Non-Public School Science Exposition and the Chicago Public School Science Fair both held at the Museum of Science and Industry. The students are 7th through 12th grade and some of the projects are extraordinary. If you want additional information on awardees and their projects, or want to get involved (coordinating, judging, etc.) with these events, just let me know.

We are still working on job assistance for our student members. This is where you can REALLY help. If your company is hiring for full-time or summer-intern engineering positions, let me know. We are maintaining a database of students in need of employment and can use help matching wants with needs. IEEE needs to recruit and maintain students as members. In order to do this, we must show the value of being an IEEE member, not only for technical needs, but for professional needs as well.

Mary S. Hart
Student Activities Chair
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FOX VALLEY SUBSECTION in a joint meeting with FOX VALLEY SUBSECTION ASQC and IEEE RELIABILITY SOCIETY, CHICAGO CHAPTER

TOPIC: Software Quality Metrics in Research and Development
DATE: Tuesday, May 19, 1992
SPEAKER: Michael J. Dimario
PLACE: Wilton Manor, 2200 N. Main St., Wheaton, IL 60187
TIME/COST: Social: 6:00 p.m. Cash Bar
Dinner: 7:00 p.m. \$13.00
Students with ID: \$11.00
Speaker: 8:00 p.m. Open to all

RESERVATIONS: Please call (708) 963-3828 to make reservations for Dinner and/or Meeting, by Friday, May 15, 1992. IEEE membership not required. Casual attire appropriate, as always.

QUESTIONS: Direct questions about topic or speaker to Praveen Gupta at (708) 231-3142.

ABSTRACT: A Total Quality Management system for software must use software quality metrics that are measurable, and reflect and support system improvements. These metrics range from aspects of quality assurance to quality control. By using software metrics, an organization can assess their software quality level and take corrective action to improve area of poor quality.

ABOUT OUR SPEAKER: Michael J. Dimario is Manager of the Performance, Reliability and Quality Assurance Group in the International Switching Customer Business Unit located at AT&T Bell laboratories in Naperville, Illinois. Mr. Dimario has been employed with AT&T Bell laboratories since 1982 and has managed this group for the past six years. His group performs quality assurance, ISO 9000, Malcolm Baldrige, quality technology research, quality project management, metric design, model development, and data analysis activities.

Mr. Dimario has authored many papers and articles on software quality research and quality technology in large research and development organizations. He is an active member of the IEEE and ASQC.

Find out what's going on in your field. Attend the social hour and dinner and meet your fellow IEEE members.

MEMBER NEWS FOR JANUARY AND FEBRUARY

	JAN	FEB
NEW MEMBERS	31	30
NEW AFFILIATES	5	2
NEW STUDENTS	11	18
SOCIETY ADDS	167	157
INSTITUTE DROPS	0	1273
RESIGNED	16	6

Note:
February is a big month for a large number of drops due to dues arrears. This February there were 1273! Are these lapses or drops? SADNESS, You won't get this notice. I know 34 of you personally.

CONGRATULATIONS TO THESE WHO ADVANCED TO SENIOR MEMBER

A. J. Alsammare	H. C. Held	Al Horst **	Robert John
D. H. Johnston, Jr.	Norm Phoenix	Vikram Punj	Ken Schmidt
Richard Remijan	Robert Camillone	George Fisher	Nurul Khan
H. P. Korman	Dennis Miller	Robert Pfahl, Jr.	Brad Rowe
M. Sarrafzadeh	Gary Tooker	John Waters	John Becker

** We hope to get a story about Al Horst for the next issue. If any of you others have a story to tell, please don't be bashful. Call us if you know of someone who was missed.

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RF Cellular Infrastructures Engineer

Requires experience in design, implementation, installation and manufacture of radio subsystems for cellular telephony cell sites & mobile phone base stations.

RF System Test Engineer

Requires experience developing and implementing system-level test procedures for field trial testing of packet switched data networks. Expertise with modem and radio performance test issues required.

Communications Software Engineer

Requires experience in design and implementation of "C" DOS PC software-based telecommunication networks. Knowledge of packet switching is a must. Background in SNA, X.25, data compression, encryption and user authentication algorithms preferred.

DSP Real-Time Software Engineer

Requires experience in design and development of signal processing functions using Assembly language with multiple custom DSP processors. Background should include knowledge of signal processing algorithms for modems, speech and telephone applications. Efficiency of code is important to produce a cost-effective commercial product.

Analog ASIC Design Engineer

Requires experience designing chips for signal processing/communication architectures. Background should include advanced logic and analog IC design (design tools: GDT, Compass, behavior languages, Verilog).

Other Opportunities exist for those experienced in **CELP Algorithms, RF Synthesizers (800-2500 MHz), BiCMOS Design, RF Si MMIC Design (2 GHz/3V), RF System Test, Digital ASIC Design, IC Reliability, RF IC Test, RF MMIC Packaging, RF Component Test and VLSI Project Engineering.**

Please indicate the position for which you wish to be considered and mail or fax (619 535-9235) your resume to S.I. Otos:



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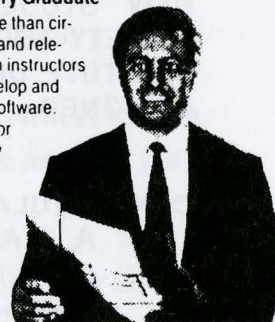
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SUBSECTIONS FOR WHERE YOU WORK OR LIVE - THE 1992 MEMBER SERVICES PLAN

=>ALTHOUGH A WAIST IS A TERRIBLE THING TO MIND, THIS IS NOT ANTI SUPPER MEETINGS<=

The Chicago Section presently has three subsections - Northwest, Fox Valley, and Chicago. Piscataway places you depending on where they fit your mail zip code.

An approach has surfaced, technical meetings at company locales, considering:

- The needs of members to spend time with their families, careers, and recreations.
- The apparent sparse attendance at many Society sponsored technical meetings.
- The availability of major technical conferences on delayed videotape.
- The availability of visiting speakers and lecturers, many with paid sponsorship

How about localized subsections, meeting morning, lunch, afternoon, 1/2 to 1 hour?

- The likely availability of meeting space at businesses, the clustering of IEEE members at locales, and the visions and goals of employers encouraging technology interchanges are the keys to these prospects.

- Subsections cover all technical societies. Attendance is open to suppliers.
- Why not an Andrew, Tellabs, Zenith, Motorola, Northrup, Shure Brothers, AT&T, Fermilab, U.S. Robotics, Rockwell, or Underwriters subsection?
- IEEE has no restriction about the name. All you need is 20 signatures of members above student grade. (Students, you already have showed us the locale centered feature.)

Petitions to form one for the Motorola locale have been sent. It will not be restricted.

For information on how to do one, or on the one in progress, you may contact

Jack Sherman, Section Member Services, 708 576 8222 -work; 708 885 4189 -home.

IEEE MEETING NOTICE

CHICAGO CHAPTER - IEEE EMC SOCIETY

DATE: WEDNESDAY - MAY 27, 1992
Refreshments 7:15 P.M.
Meeting 7:30 P.M.

LOCATION: AT&T BELL LABORATORIES
2000 N. NAPERVILLE ROAD
NAPERVILLE, ILLINOIS

SPEAKER: CLIFFORD KRAFT FROM AT&T BELL LABS

TOPIC: PREDICTING RADIATION PATTERNS FROM ANTENNAS AND OBJECTS
USING METHOD OF MOMENTS

FOR RESERVATIONS & DIRECTIONS: CALL IEEE OFFICE 708-963-3828

IEEE RECOGNITION DINNER — 1992

DATE : SATURDAY, MAY 2, 1992
PLACE : WOODFIELD HILTON & TOWERS (LAKE MICHIGAN ROOM)
3400 W. EUCLID AVENUE, ARLINGTON HEIGHTS, IL
TIME : 6:00 PM — COCKTAILS & HORS D'OEUVRES
7:00 PM — DINNER, FOLLOWED BY PROGRAM
TICKETS: DONATION — \$30.00 PER PERSON

by mail — Joe Feitler, Box 5072, River Forest, IL 60305
by phone — Joe Feitler at ISC: (708) 505-9100, x277

IEEE CHICAGO SECTION – PLACEMENT SERVICE APPLICATION FORM

Prospective employers will receive the information on this form on request unless marked "CONFIDENTIAL" at the top of this form. Please notify us immediately if you accept employment to leave space for other search ads.

Each search ad will run in two consecutive monthly SCANFAX issues; find publication information on page 2 herein. The number of search ads per issue may be limited by space constraints.

(please print)

Name _____ IEEE No. _____ Expir. Date _____

Address _____ IEEE Grade _____

City/State/ZIP _____ Phone (____) _____

Instructions

To better serve our membership, each submission must be complete and adhere to the following:

1. Identify educational qualifications, position being sought, professional experience, and pertinent qualifications.
2. Use industry standard acronyms and abbreviations.
3. Limit your text to the 100 spaces provided.

[illegible]

The IEEE and its Chicago Section waive any responsibility in determining the credibility, accuracy, or qualifications of applicants or employers.

Mail to: IEEE Placement Service, c/o Robert A. Schrage, Commonwealth Edison Co., P.O. Box 767 - SEED 836E, Chicago, IL 60690

IEEE CHICAGO SECTION – SCANFAX PLACEMENT SERVICE

The Chicago Section provides a free placement service for its *unemployed* members of Member Grade or above. If you want additional information about the applicants listed below, contact our section's business office.

(If marked "confidential", our office will inform this applicant about the prospective employer's inquiry).

No.	Description
265	BSEET - Technical instructor/writing with 8 years experience. Computer systems support, microprocessor assembly language.
266	MSEE - 33 years with design & development engineering/management experience. Robotics/automation. Spec., vehicles. Analog/digital. Programmable controls.
267	PHD Physics - 9 years experience III-V semiconductors. Seeks problem solving/development position.
268	BS - 20+ years experience as switch engineer. Documentation specialist - Mainframe, Midrange, PC.
269	BS Physics - 12 Years in R&D for Fiber Optic cable, components, & systems. Graduate courses in Fiber Optics.
270	BS (E) - proj-eng. 1 yr SIEMENS as EE. MATLAB, MATHEMATICA, LOTUS 1 2 3 tutoring, powertransformer. MS (E) in June '92.
271	BSEE - 7 yrs in analog & digital design for demanding environments.
272	BSEE - seeks entry level position in EE. Experienced technician.
273	PHD - R&D experience in Telecommunications, 3 yrs with CCS7 TUP/ISUP, support tools
274	MSEE - MSCS, software development, microprocessing, networking, UNIX, Shell, & testing.
275	BSEE - Plant manager, engineering background & problem solver. SPC, MRP, JIT, Quality circles, CPIM.
276	BSEET - DeVry graduate. Seeks engineering position. 2 yrs experience with Satellite RCVR EXP ORCAD, PIC MCU & Prototyping.

1992 IEEE CHICAGO SECTION - SALARY AND FRINGE BENEFIT SURVEY

Please circle or fill in the blanks on this sheet in the space provided. Your response must be received by July 15, 1992 to be tabulated. Please respond only if you are working in an engineering or engineering management position on a full-time basis, or if this would be your job if not currently unemployed. The survey is anonymous, please fill in all the responses so that we can make a meaningful comparison with the results of the 1988 and 1990 surveys. The results will be published in a fall issue of SCANFAX.

1. AGE - Insert your age in years (round off) as of APRIL, 1992, []

2. TOTAL COMPENSATION - What was your ANNUALIZED TOTAL compensation from your main employer as of APRIL 1992, 1991, 1990? DO NOT include overtime income and DO NOT include income from secondary employment (such as part-time teaching, part-time consulting, etc.) Enter integer dollars. 1992-[\$, .00] 1991-[\$, .00] 1990-[\$, .00]

3. **ENGINEERING EXPERIENCE** - How many years of experience have you had in electrical/electronic engineering and/or related fields? Years

4. YEARS WITH PRESENT EMPLOYER How many years (total) have you been with your present employer as of APRIL, 1992 [] (use your prior employer if you are currently unemployed).

5. OVERTIME - How many hours of overtime do you work in a YEAR? []

6. UTILIZATION - If working, how many hours do you spend for your present employer? Full-time [] Part-time []
Do you feel underemployed? [Y] [N]

7. VACATION - How many vacation days can you take in 1992? []

8. DEGREE/LICENSE - Check up to 3 codes as applicable.

☐ Less than Bachelor's Degree ☐ Bachelor's Degree ☐ Master's Degree ☐ Doctorate ☐ Registered Profesional Engineer

IEEE CHICAGO SECTION - GENERAL SURVEY

If necessary, use a separate sheet for you remarks and enclose when mailing. *Constructive input is solicited.*

1. Your ZIP code for SCANFAX delivery []

2. Does SCANFAX arrive in time for your use? [Y] [N] If no, please explain _____

3. Does SCANFAX contain the information you seek relative to Chicago Section activities? [Y] [N]

If no, please explain _____

4. Are you planning to attend at least one IEEE Video Teleconference in 1992? [Y] [N]

5. Did you attend one or more Chicago Section sponsored JOB Fairs? [Y] [N] If yes, how many? []
Your Impressions?

6. Identify any new Society Chapters that would serve your professional interests better.

7. Identify any specific action or activity that the Chicago Section could undertake to serve your professional interests better.

8. Any other helpful suggestions?

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IEEE USA HOT LINES

IEEE-USA Office, 1828 L Street, N.W., Suite 1202, Washington, DC 20036-5104, USA (202) 785-0017
IEEE-USA telephone hotline recording: (202) 785-2180
James A. Watson, Editor—Georgia C. Stelluto, Associate Editor

Are You Happy?

Are you happy with the U.S. economy? Can you look forward to a comfortable retirement, built around a secure pension, in addition to your savings and investment income? Can your engineering colleagues do the same? Chances are, you're like most engineers; you've moved around a lot in your career, or you will be moving. That's why IEEE-USA has been working for many years toward portable pensions.

We made major legislative breakthroughs in the 1970s and 1980s, and now, in the 1990s, we have used \$4 (\$2 per year) of your dues to create the opportunity to achieve true portability. But we cannot do it without your support and a modest additional cost to you of three first class postage stamps—87¢.

That's the cost of writing three letters—one to each of your Senators and one to your Congressman. Timing is crucial—this is an election year, and Members of Congress will not only listen, but will also respond to their constituents. So, if you're not happy, tell them about it! Ask them to co-sponsor, support and vote for H.R. 2390, the **Pension Coverage and Portability Improvement Act of 1991**, a bill endorsed by IEEE-USA. We've worked hard to get this bill together and to get it introduced. (Not a bad return for your \$4.) We need members' support to get it passed.

Handwritten letters are fine—they represent sincere concern. BUT WRITE THEM NOW! Remember, you are the IEEE-USA. Even if you have a portable pension plan, send the letters anyway, so that other engineers and other U.S. workers can be helped. A lot is at stake. With letters from our 250,000 U.S. members and their families, friends and allies, we can have a tremendous impact on Congress.

Tell your Senators and Representative that you are not being merely self-serving. Implementing H.R. 2390 will significantly enhance national savings and will help improve U.S. competitiveness in global markets. Pension funds provide much of the investment capital in this country, and industrial expansion requires capital. Passage of this legislation could be the best \$4.87 investment you've ever made in your own and your nation's future.

If you need assistance in identifying your Members of Congress, consult the reference pages of your telephone book or your local public library. If you want some tips on communicating with Congress or need more information on pension issues and legislation, contact the IEEE-USA Office at 1828 L St., N.W., Washington, D.C. 20036-5104; (202) 785-0017 (office); (202) 785-0835 (fax).

Address your letters to Congress to the U.S. Senate, Washington, D.C. 20510, or to the U.S. House of Representatives, Washington, D.C. 20515.

—Edward C. Bertnolli, Chair
National Government Activities Committee

IEEE-USA NEEDS YOUR HELP TO IMPROVE PENSION PORTABILITY



LEGISLATIVE ALERT IEEE-USA

Portable Pensions: Their Time Is Now

The boom/bust cycle that has characterized the U.S. aerospace/defense industry for more than 40 years is on the downhill slide again, after a steep defense buildup and a prolonged commercial expansion. Cutbacks and layoffs during the past year have disrupted thousands of careers and prompted numerous industry professionals to ponder whether this is the right business to be in.

As in the early 1970s, the latest aerospace drought is forcing the industry to confront a persistent problem. It does not offer its people a decent retirement system. Most aerospace companies have competitive retirement plans; they must if they are to attract relatively few employees can stay with one company long enough to qualify.

It is increasingly rare to find managers, engineers, technicians, production line workers or mechanics who have worked full careers with a single aerospace company. Most have experienced multiple layoffs or have changed jobs

voluntarily, following major programs from company to company. These "acro-bracers" eventually end their working careers with no retirement fund other than what they have put aside privately.

"Portable Pensions" are needed to provide retirement security for these highly mobile employees. The concept is not new. It is being discussed in Washington now as a security for the 50% of Americans who reach retirement age with little or no financial security. Corporate managers typically take a mobile workforce into account. In fact, they depend on it. If U.S. technology-intensive industries are to mature, while remaining competitive on a world scale, their leaders must recognize that skilled manpower is technology's lifeblood, not to be squandered.

AVIATION WEEK & SPACE TECHNOLOGY
MAY 6, 1991

Your help is needed to secure passage of legislation that will improve pensions for engineers, scientists, and other mobile professionals.

H.R. 2390, The Pension Coverage and Portability Improvement Act, sponsored by Congressman Sam Gibbons (D-FL), is based on retirement policy recommendations developed by IEEE-USA. **H.R. 2390** will expand pension coverage, reduce vesting requirements, improve the portability of benefits when workers change jobs (including defined benefit plans), promote individual savings, and help to ensure the retirement income security of our increasingly mobile work force.

As a concerned engineer or scientist you should communicate your support for this important legislation to your Congressman and both Senators in Washington at once!

Urge them to support the pension portability provisions of **H.R. 2390** when the House Ways and Means and Senate Finance Committees take up pension reform and simplification proposals.

Highlights of H.R. 2390

Coverage Expansion--Employers lacking current retirement plans would be required to offer voluntary salary reduction savings arrangements for their employees. Employees who wish to do so could contribute, on a salary-reduction (pre-tax) basis, up to 25 percent of compensation (or \$30,000) per year.

Vesting Standards--One hundred percent vesting, required after one year of service, will earn for all full-time employees a non-forfeitable right to a pension benefit.

Portability in Defined Benefit Plans--Terminating employees would have the option of leaving earned benefits in a former employer's plan or transferring those benefits to another qualified plan or to an Individual Retirement Arrangement. The rollover or transfer value of earned benefits would be determined using an assumed (deflated long term) interest rate of 3 percent, rather than prevailing market rates, to help preserve the purchasing power of such benefits when workers change jobs.

Preservation of Benefits--The bill provides for the imposition of a 25 percent penalty tax on pre-retirement distributions that are not transferred to another qualified plan or to an individual retirement account.

Minimum Benefit Pension System--If pension coverage and portability do not improve substantially after 5 years, **H.R. 2390** establishes, for those not already receiving equivalent or better retirement provisions, a privately administered minimum benefit pension system to which employers must contribute a minimum of 6 percent of compensation. Employees will be permitted to make matching contributions on a salary reduction basis.

Suggested Letter of Support

"Dear Representative (or Senator):

"I am writing to you as a constituent and engineer to urge you to support **H.R. 2390, The Pension Coverage and Portability Improvement Act of 1991.**

"H.R. 2390, as introduced by Congressman Sam Gibbons (D-FL), will expand pension coverage, reduce vesting requirements, improve portability, and help preserve pension benefits when workers change jobs. The resulting increase in savings by companies and individuals will also enlarge the pool of capital available for productive investment in the nation's economy.

"Prompt enactment of **H.R. 2390** is needed to strengthen the nation's voluntary private pension system and improve the retirement income security of America's increasingly mobile work force.

"Thank you for your support."

Sign your letter, and mail to U. S. House of Representatives, Washington, D.C. 20515, and to U. S. Senate, Washington, D.C. 20510. Send copies to Vin O'Neill, IEEE-USA, 1828 L Street, N.W., Suite 1202, Washington, DC 20036.

102ND CONGRESS
1ST SESSION

H. R. 2390

To amend the Employee Retirement Income Security Act of 1974 and the Internal Revenue Code of 1986 to expand pension coverage, improve pension portability, increase retirement savings, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MAY 20, 1991

Mr. GIBBONS introduced the following bill; which was referred jointly to the Committees on Education and Labor and Ways and Means

A BILL

To amend the Employee Retirement Income Security Act of 1974 and the Internal Revenue Code of 1986 to expand pension coverage, improve pension portability, increase retirement savings, and for other purposes.

- 1 Be it enacted by the Senate and House of Representatives
- 2 of the United States of America in Congress assembled,
- 3 That this Act may be cited as the "Pension Coverage and
- 4 Portability Improvement Act of 1991".

"MANAGING CHANGE'92" Track Profiles

Many disciplines are linked within and between the seven Topic Tracks. Those listed below complete the synopsis begun last month (SCANFAX pg 11). This event has received national endorsement with calendar entries in sponsors' publications distributed to all members. Registration desk positions are available. Call the Project Management'92 office.

- **DELAY, DISRUPTION, AND CHANGE** is the focus track. Robert Vande Walle (VP-Foth & Van Dyke) on Strategic Alliances and Clive Hazell, PhD on Resistance to Change and four others are speaking on timely topics.
- **QUALITY AND RELIABILITY** is anchored by Bill Smith (VP-Motorola).
- **MANAGING INFORMATION** includes Eugene Scray III on Software Design Performance and Ken Keller on Information Explosion.
- **PROJECT MANAGEMENT TOOLS** features Tom Rogers (Lucas) with On Time Project Management and Tim McHugh on Change and Project Span.

Project Management Conference; May 7-8; Drake Hotel, Chicago, IL.
Sponsors: ASCE Illinois Section, IEEE Chicago Section and Project Management Institute - Midwest Chapter. Project Management'92, 2460 Wisconsin Avenue, Downers Grove, IL 60515, (708) 963-4002.

Andy Petersen

Bob Camillone

IEEE Video Teleconferencing Service

Environmental Issues and Impact to Engineers — May 28

Health and environmental issues present some of the toughest challenges that electrical and electronics engineers will face in the near future. It is clear that solving these problems will require changing our day-to-day work procedures. Indeed, these solutions may lead to major changes in the way electronic engineering is practiced.

This videoconference will look at these changes — many of them controversial — in a lively yet practical way. We will focus on issues which need addressing early in the electronics design phase. It is critical that we shift our attention from chemical disposal to source minimization using recyclable, reclaimable materials and shift from using abatement systems to safe chemicals. We will address product design for disassembly, disposal and reclamation, and process design for source reduction and waste minimization.

All engineers will need to focus on health and environmental requirements as new processes are defined and new products are brought to market. A dynamic awareness is required as more knowledge of the environment is gained and put to use. The impact of environmental issues on your applications make this videoconference key viewing for electronics and electrical engineers worldwide.

Lead Presenter: Diana J. Bendz, Director of Safety, Chemical Management & Environmental Programs, IBM, Purchase, NY

ENGINEER'S WEEK AT IIT WEST - THE OPTIMIZATION OF ENGINEERS AND THE ENGINEERING OF AUTOGYROS

The February 22nd Eighth Annual DuPage Area Engineer's Week program opened a lot of eyes to some not so trivial pursuits- hundreds of interactive families!

- Twenty interactive displays, sessions, and activities.

Alternative transportation futures, Eurotunnel, Tallest building, Holograms, MAGLEV, Cryogenics, Land Management, Materials testing, Geiger Counter Hunt, Paper Technology, SCI-TECH (exhibits), Software hands-on, Diode Lasers, and the project that this writer worked with: Prof. Earl Zwicker's Autogyro Drop Contest.

- Thirty interactive Professional Engineering Societies lined the halls with info booths: ACerS, AICHE, ANS, APWA, ASQC, ASAE, ASCE, ASHRAE, ASME, ASM, ANL, CoD, CPEE, FNAL, IIT, AMSA, IPLSA, IVSSN, IEEE, IIE, SAE, SPE, SPHE, SWE, SEAI, WSE, WSEE.

Call Ruth Sweetser at IIT West, the Rice Campus, 708 682 6000 and ask for a copy of the program, get yourself ready for next year, or just tell her what a great job she did. She'll tell you that the steering committee did it all, so tell you own society people too.

JOINT MEETING OF THE ELECTRON DEVICES
SOCIETY AND THE NORTHWEST SUBSECTION

May 13, 1992

"CBIC-V and BEST1/BEST 2C: Recent Developments in High Frequency Bipolar Technology"by Michael A. Banak
AT&T Bell Laboratories

CBIC-V is a complementary, bipolar IC technology which features vertical NPN's with an Ft of 14GHz and vertical PNP's with an Ft of 5GHz which is intended for high frequency analog applications. BEST1 is a bipolar technology that is designed for both high speed digital and wideband analog applications; BEST2C is a BiCMOS enhancement of the BEST1 process. Both CBIC-V and BEST technologies will be described with a review of popular applications and future trends.

Michael Banak received both the BSEE and MSEE degrees from the Illinois Institute of Technology in 1976 and 1979 respectively. From 1977-1984 he worked primarily as an IC design engineer first for Motorola and then briefly with International Jensen Consumer Products. Since 1984 he has been with AT&T Bell Laboratories where he is currently field applications engineer at the Naperville Laboratory.

Place:	The Wilton Manor 2200 N. Main St. Wheaton, Illinois	Time: 6:00 p.m., Social, Cash Bar 7:00 p.m., Dinner \$13.00 with reservations by May 11 \$14.00 without reservation
Reservations:	Call IEEE office at (708)963-3828	8:00 p.m. meeting - All welcome, no charge

POWER ENGINEERING SOCIETY

SPEAKER: Mr. Robert Fiorani
Director of Corporate Communications
Square D Company/Groupe Schneider

TOPIC: The Positive Effects of the Globalization of the Electrical Industry

ABSTRACT: On May 29, 1991, Square D Company was purchased by Groupe Schneider of Grenoble, France. In the recent past numerous other electrical equipment companies have merged with overseas competitors. Mr. Fiorani will discuss the opportunities, challenges and progress made by Square D/Groupe Schneider and other recently merged companies.

BACKGROUND: Following graduation in 1967 from Marquette University with a BS in electrical engineering, he began an 18-year career in marketing for the design, tooling and manufacturing division. In 1985 Fiorani assumed the position of Director, Corporate Communications and Investor Relations. In 1989, Fiorani assumed worldwide responsibility for all Square D communications. Bob is a member of IEEE and NEMA.

PLACE: Chicago Bar Association
321 S. Plymouth Court
Chicago, IL

DATE: May 13, 1992

TIME: 11:30 Social 12:00 Lunch 12:30 Presentation

Reservations must be made by noon, Monday, May 11, 1992 by calling (708)963-3828. Please leave name(s) and company name.
Lunch is \$6.50.