

ADVANCE REGISTRATION  
AND CALL FOR PAPERS

Washington, D.C. Sept. 10-12, 1984  
Shoreham Dunfey Hotel



POLICY NEEDS AND IMPLICATIONS  
FUTURE BUSINESS PROSPECTS  
ADVANCED TECHNOLOGIES  
NAVIGATION SYSTEMS  
COMPUTER SYSTEMS  
SONAR AND ASW  
C<sup>3</sup>I SYSTEMS  
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Technology, Policy and Systems

VHSIC  
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MILITARY SPACE  
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NON-DOD TELECOMMUNICATIONS  
SURVIVABILITY, VULNERABILITY & ENDURANCE

SPONSORS: Aerospace & Electronic Systems Society, IEEE Washington Section  
The Institute of Electrical and Electronics Engineers, Inc., IEEE

CONTACT:

Otto W. Hoernig, Jr.  
Technical Program Chairman  
American Satellite Company  
1801 Research Boulevard  
Rockville, MD 20850

OR

Carl D. Avers  
Deputy Program Chairman  
IBM Federal Systems Division  
18100 Frederick Pike  
Gaithersburg, MD 20878

I am interested in (check one or more):

- ☐ Presenting a classified paper  
☐ Presenting an unclassified paper  
☐ Organizing a session  
☐ Receiving Program/Registration Information

CLIP & MAIL TO:

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Merrifield, VA 22116

MY TECHNICAL AREA OF INTEREST IS: \_\_\_\_\_

NAME: \_\_\_\_\_

AFFILIATION: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

TELEPHONE: ( ) \_\_\_\_\_

Please submit a 250 word abstract to Mr. Hoernig or Mr. Avers as soon as possible.



PUBLICATION OF THE NORTH JERSEY SECTION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

APRIL, 1984

Volume 30, Number 10

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NEWSLETTER STAFF

Editor . . . . . M. M. Perugini  
Managing Editor . . . . . B. Blair  
Business Manager . . . . . A. M. Beattie

Deadline for receipt of material is the 1st of the month preceding the month of publication. All communications concerning editorial and business matters, including advertising, should be addressed to: The Newsletter, c/o Girard Associates, Inc., 6 Robert Terrace, Mt. Arlington, N.J. 07856. (201) 398-5524.

Subscription: \$0.75 per year through dues for members: \$1.50 per year for non-members.

REPORT ALL ADDRESS CHANGES TO:  
IEEE Service Center  
445 Hoes Lane  
Piscataway, N. J. 08854  
(201) 981-0060

It is not necessary to inform the North Jersey Section when you change your mailing address. The NEWSLETTER and other section mailings use a list provided by IEEE's national headquarters in New York. This means the Section has no need to maintain a mailing list or addressing plates. Section membership records are changed when Headquarters notifies us.

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239-4389  
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Member-At-Large . . . . . Robert Sinusas  
Jr. Past Chairman . . . . . Frank Relotto

South Street Seaport  
Management & Costs

The April 18th meeting of the New York/North Jersey Chapter of the Engineering Management Society will look at the "Management & Cost Aspects of Schermerhorn Rehabilitation Project." The speaker will be John A. Falls, CCE.

Mr. Falls holds a Bachelor of Science degree from City College of New York and has continued his studies at Pace University in the MBA Management Program. For the past twenty years, Mr. Falls has been involved in a wide range of construction projects. The bulk of his experience is centered around project estimating and scheduling.

Mr. Falls is employed by E.W. Howell Co., Inc. as Project Manager of Schermerhorn Row, a 10 million dollar restoration in the South Street Seaport District and other building modifications.

This will be the second joint meeting with the American Association of Cost Engineers and should prove to be a very worthwhile experience.

Election Of Officers

The Engineering Management Society will hold their annual election of officers at this meeting. For further information on the elections call Martin Izaak (212) 397-7438.

Time: 7:15 PM, Wednesday, April 18, 1984.  
Place: Swiss Bear Restaurant, 20 East 41st Street, NYC.

Pre-Meeting Dinner and Cocktails: 5:30 PM.  
Cost: \$17.50 per person — includes the

cost of dinner and two cocktails, tax and gratuities.

Reservations: Al Bottani (212) 393-3797, Barry Gourary (201) 783-5570 or Harry Stokes (914) 696-6775 no later than April 16, 1984.

Computer Demo At  
PC Committee Meet

The April 18 meeting of the North Jersey PC Committee will feature a discussion of KAYPRO's computer line.

The guest speaker will be Ian Watson, a representative of A.B. Computers, Ridge-wood, N.J. Mr. Watson will discuss the KAYPRO computer products, uses, new developments and the consumers they satisfy. KAYPRO offers a completely bundled system with extensive software. The talk will include a product demonstration and there will be time for questions and answers.

A brief business meeting will be held to discuss the type of meetings scheduled for the following months.

Join us and let us know what you want from your P.C. Committee.

This meeting is open to all IEEE members. Coffee and refreshments will be served.

Time: 7:30 PM, Wednesday, April 18, 1984.

Place: Auditorium, Singer-Kearfott, Plant 3 (Rear Entrance), 1250 McBride Ave., Little Falls, N.J.

Further Information: Richard Tax (201) 288-2000, Ext. 4419.

1241264 SM  
RICHARD F TAX  
51 HAWTHORNE ST  
PARK RIDGE  
NJ 07656  
FEB 14  
C 15

PACE Sets Meeting Dates

The North Jersey Section Professional Activities Committee will sponsor its regular monthly meeting the third Wednesday of every month. Meetings will be held from 7:30 PM to 9:30 PM at Singer-Kearfott, Plant 3, 1250 McBride Avenue, Little Falls, N.J.

These meetings are open to all members and interested public professionals with refreshments free of charge.

Further Information: M. McLarin (201) 335-6847; H. Waters, (201) 785-6417.

Celebrate Centennial: Become A Senior

Celebrate the IEEE Centennial by becoming a Senior Member.

Approximately 12% of the IEEE members are Senior Members. Many others probably have the qualifications to apply for it.

A Senior Member candidate must have been in active professional practice for at least ten years. Degrees are credited as part of this experience as follows:

Bachelors	3 years
Masters	1 year additional
Doctorate	1 year additional

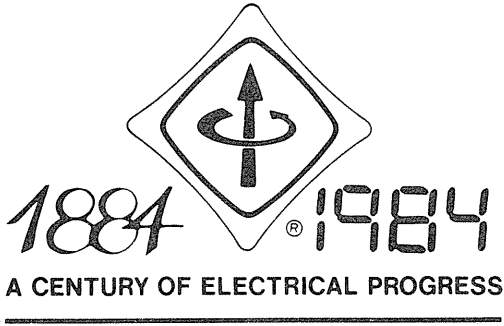
You can get information and an application by contacting: Don Weinstein, Kulite Semiconductor, 1039 Hoyt Avenue, Ridgefield, N.J. 07657, (201) 945-3000.

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PRATT INSTITUTE

A Tenure track faculty position is available as of September, 1984 in the School of Engineering — Department of Electrical Engineering. A Ph.D., professional and/or teaching experience required. Interest in Undergraduate teaching essential. Salary and rank commensurate with qualifications. Excellent Benefits package. Submit resume as soon as possible but not later than April 20, 1984. AA/EOE.

Pratt Institute  
EE Search Committee  
c/o Personnel Office  
Department EEM  
200 Willoughby Avenue  
Brooklyn, New York, 11205



The Founding Of The IEEE - Part 3

IEEE Centennial 1884-1984: "IEEE — The Past Two Decades"

The new society’s organization was clearly patterned after the IRE. There was to be a small Board of Directors with an Executive Committee to take care of everyday affairs, as opposed to the AIEE pattern of a large Board and no Executive Committee; the IRE Professional Group system prevailed over the AIEE Technical Committees; and the operation was in general decentralized after the IRE pattern.

The merger resulted in the death of one periodical and the birth of another. *Electrical Engineering*, the AIEE publication, had suffered from a lack of advertising revenue for years, and was dropped. *Proceedings of the IRE* was profitable from an advertising standpoint, but its papers were too esoteric to serve the diverse membership of the new society. In 1964 *Spectrum* was launched as the new “core” publication, with *Proceedings* remaining as a high quality technical journal available by separate subscription.

In 1973 the IEEE took a step away from the traditions of both of its predecessors with the adoption of a new constitution. The IEEE gave up its role as a “learned society” concerned solely with the advancement and dissemination of knowledge, and assumed the role of a “professional society” concerned with the non-technical as well as technical interests of its members. The United States Activities Board, supported by an annual assessment paid by U.S. residents, was created to oversee the non-technical operations of the IEEE within the United States.

Two decades have passed since the formation of the IEEE. Today the Institute is the largest professional association in the world, with almost a quarter-million members, and its activities now extend far beyond anything its forebears could have foreseen. It remains, however, just as it was a century ago, the premier spokesman for the most significant and exciting technological field of its time.

Student Activities

By STELLA LAWRENCE

ANNUAL STUDENT PRIZE PAPER CONTEST Sunday, April 15, 1984

The 1984 Metropolitan Student Council Prize Paper Contest, sponsored by METSAC will be held on Sunday, April 15, 1984 on the beautiful Hillwood Lakes campus of Trenton State College. Come to Student Activities Day! Spend Sunday on 210 wooded acres in suburban Ewing Township, N.J. Listen to the papers presented in the Prize Paper Contest, attend the Ninth Annual Trenton Computer Festival, visit Trenton State College. Founded in 1855 the college has maintained a tradition of excellence in higher education.

The prizes in the 1983 contest were: First Prize \$150, Second Prize \$100, Third Prize \$50, Fourth Prize \$25.

The best paper in each school will also win an award of \$25.

Last year there was a separate contest for freshman and sophomores. The prizes were: First Prize \$150, Second Prize \$100, Third Prize \$50, Fourth Prize \$25. This year there may only be one contest for all students.

NINTH ANNUAL TRENTON COMPUTER FESTIVAL April 14 & 15, 1984

The Ninth Annual Trenton Computer Festival will be held on April 14th & 15th, 1984. It is sponsored by the IEEE/ACM Princeton Section, the Department of Engineering Technology, Trenton State College, and other outstanding computer societies.

It is the ORIGINAL Personal Computer Show. Last year the attendance exceeded 10,000. The conference will feature computer sessions on hardware, software, home applications, robotics, and much more. There will also be user group sessions on Apple, IBM, Radio Shack, Pet, etc. computers. There will be free courses, demonstrations, technical sessions, exhibits, graphics, and much more.

Learn, participate, and enjoy.

For further information contact SIEET, Trenton State College, Hillwood Lakes, CN550, Trenton, N.J. 08625, or call (609) 771-2487.

OUTSTANDING STUDENT AWARD

Student Branch Counselors are reminded to submit the name of the outstanding student in their Branch for the Outstanding Student Award. The May 9th meeting of the New York Section will honor these students and the Student Prize Contest Winners.

REGION 1 PRIZE PAPER CONTEST

The Region 1 Prize Paper Contest will be held in Boston, during ELECTRO/84, on May 15, 1984 at the Boston Sheraton in the Prudential Center.

Last year the Region 1 Prizes were: First Prize \$2,500, Second Prize \$500, Third Prize \$300, Fourth Prize \$100. In addition the Region will pay the transportation expenses of the four major contest winners.

STUDENT ACTIVITIES DAY AT ELECTRO/84

Tuesday, May 15, 1984

This year, ELECTRO will return to Boston bigger and better than ever with all the latest developments in computers and electronics.

The Regional Student Conference will be held on Tuesday, May 15, 1984. In addition to the Region 1 Prize Paper Contest, the Conference will feature a Mini-Student Professional Awareness Conference, an SPAC, a MSC meeting, and many other interesting events. It will be well worth attending.

MSC MEETING REPORT

The Metropolitan Student Council, sponsored by METSAC, held a very interesting and productive meeting at the Bramson ORT Technical Institute on Sunday, February 26, 1984.

Schools represented included: Bramson ORT Technical Institute; Bronx Community College; Academy of Aeronautics; City University of New York Technical College; Pratt Institute; and Technical Career Institute.

The following officers were elected: Chairman: Edward Farkas, NYC Technical College; Vice-Chairman: Byron Knibbs, Academy of Aeronautics; Secretary-Treasurer: Daniel Briggs, NYC Technical College.

Robert Babani was designated MSC Representative from the Academy of Aeronautics, (as well as Byron Knibbs).

Mr. Farkas is also the Student Representative to the Region 1 and New York Section Executive Committees.

In addition to the students present at the meeting Dr. Charles Rubenstein, METSAC Student Activities Chairman, Professor Stella Lawrence, Student Activities Chairman for the NY Section, and Professor Fernando Segovia, former Chairman, NY Section Student Activities, and Counselor of the TCI Student Branch were also present.

The meeting discussed the proposed objectives of the MSC and outlined plans for future meetings. In addition to attendance and participation in the Region 1 Student Conference at ELECTRO/84, the MSC is sponsoring Professional Awareness Conferences at several Student Branches, including a PAC at the Technical Careers Institute in April, 1984.

COMMUNICATION SOCIETY

In Regions 1-7, up to \$1,500 per Region will be awarded in scholarships to teaching or research assistants pursuing a graduate degree program in communications engineering. All applicants must be members of the COMSOC. Deadline is June 1, 1984.

Contact: Dr. Donald R. Ucci, Electronics Engineering Dept., SUNY at Stony Brook, Stony Brook, N.Y. 11794, (516) 246-7134 or (516) 246-6757.

\*\*\*\*\*

**\*We are anxious to publish news of Student Branch elections, and Student Activities. Send all information to your Student Activities Editor, Professor Stella Lawrence, Bronx Community College, W 181 Street and University Ave., Bronx, N.Y. 10453 or call (212) 220-6044.**

Post-Divestiture  
Telecommunications

A one-day seminar on “Telecommuni-  
cations in the Post-Divestiture Environ-  
ment” will be held at the Scanticon-Prin-  
ceton Conference Center on April 17, 1984.  
The Seminar is sponsored jointly by The  
New Jersey Coast Communications Society  
Chapter, IEEE and The Princeton Section,  
IEEE.

The program includes:  
Irwin Dorros, Executive Vice President,  
Technical Services, Central Services Orga-  
nization, Inc — “BOC Telecommunica-  
tions in the Post-Divestiture Environment”  
James J. Tietjen, President and Chief  
Operating Officer, RCA American Commu-  
nications, Inc. — “Domestic Satellite Com-  
munications in the Post-Divestiture Environ-  
ment”  
David G. Thomas, Executive Director,  
Transmission Systems, AT&T Bell Labora-  
tories — “Fiber Optics in the ‘80’s and Be-  
yond”  
Roy J. Morris, Senior Manager of Policy  
Administration, MCI — “Making it as Inter-  
exchange Carrier after Divestiture: Having  
the Right Stuff”  
J. Randolph MacPherson, Regulatory

Counsel, Telecommunications, Department  
of Defense — “National Security - Emergency  
Preparedness Communications in an Evolv-  
ing Competitive Environment”  
Nobuhiko Shimasaki, General Manager,  
C & C Systems Development, NEC America  
Inc. — “Local Area Networks and Wide  
Area Networks in the Post-Divestiture En-  
vironment”  
Michael S. Slomin, Legal Assistant to  
Chief of Common Carrier Bureau, Federal  
Communications Commission -- “Divesti-  
ture: Technology Boom or Bain”  
Steven G. Chrust, Director of Technology  
Research, Sanford C. Bernstein and Company  
“Market Share Opportunities for Long Dis-  
tance, Network Equipment and Customer  
Premise Equipment”  
The Luncheon speaker will be Senator  
Frank Lautenberg (Dem.-N.J.)  
Registration, including Sessions, Proceed-  
ings and Luncheon is \$75 for IEEE Mem-  
bers and \$100 for Non-Members. Additional  
Conference Proceedings are available at \$25  
each.  
Checks should be made payable to:  
NTSAC ‘84 and sent to Dan McWhorter,  
AT&T Communications, 295 N. Maple Ave.,  
Room 3449 No.3, Basking Ridge, N.J.  
07920, (201) 221-4461.

Conference/Exposition  
Features Robotics Design

The New Jersey Robotics Conference  
and Exposition will be held on April 28,  
1984 from 9 AM - 4 PM in the Center. The  
conference is cosponsored by the Indus-  
trial Engineering Department, NJIT and  
Robotics International of SME.  
This years conference theme is Robo-  
tics Design and will include several speakers  
on both hardware and systems robotic de-  
sign. The exposition will include several  
robot manufacturers demonstrating their  
robots and peripheral equipment.  
The all-day conference is available to  
SME members for \$40, non-members \$50  
and students \$20. A limited enrollment  
pre-conference tour of the robotics section  
of the Western Electric Princeton Labora-  
tories is scheduled for Friday, April 27,  
1984.  
Interested persons should contact: Dr.  
Kevin J. McDermott, Professor of Indus-  
trial Engineering, New Jersey Institute of  
Technology, Newark, N.J. 07102 (201)  
645-5332.

Text of the letter follows:

*This letter is in reference to the “Return Home Amend-  
ment” and the Immigration Reform and Control Act, HR1510.  
We support the philosophy that all foreign students,studying  
in the United States, be required to return home for two (2)  
years before becoming eligible to apply for immigration to  
the U.S. We support this for all foreign students without any  
waivers or exemptions.*

*We are aware that Representative Sam Hall has submitted  
an amendment to revoke the exemptions and waivers in the  
current Bill for all foreign engineering, computer science,  
math and natural science students. We support Representa-  
tive Hall’s Amendment as we have supported the Return  
Home provision for all foreign students, without exemption,  
for the past two years.*

*To this date there has not been any accurate or viable in-  
formation to support any theories, statements or press re-  
leases depicting shortages of engineering or technical person-  
nel in the U.S. Therefore, we do not believe there is a need  
to retain or import foreign students, engineers or technical  
personnel.*

*Our North Jersey Section of the Institute of Electrical  
and Electronics Engineers is one of the largest Sections of  
the IEEE with more than 5000 members. The Members of  
the Executive Committee of this Section endorse this letter  
and encourage you to work toward and support a 100% re-  
turn home provision for all foreign students studying in the  
U.S. at the conclusion of their studies. We support this with-  
out exception and suggest it be made effective immediately.*

NJ Section Nominees

The Nominating Committee of the  
North Jersey Section has announced the  
following nominations of Section Officers  
for 1984-1985:  
Chairman: Eugene Niemiec  
Vice Chairman 1: Richard Tax  
Vice Chairman 2: John Van Savage  
Treasurer: Charles Coulomb  
Secretary: Robert Sinusas  
Member-at-Large: Howard Leach  
Richard Aiken  
John Baka

Mr. Frank Kuhl has been nominated by  
petition for the office of Member-at-Large.  
Three Members-at-Large are to be selec-  
ted by the Voting Members.  
Nominations in addition to those made  
by the Nominating Committee may be  
made by petition from the membership.  
Such nominations must be signed by not  
fewer than 25 voting members of the North  
Jersey Section, and transmitted to the  
Section Secretary for submission to the  
Executive Committee not later than April  
20, 1984. The petition must certify that  
the person(s) nominated have agreed to  
serve, if elected.

Candidates nominated by petition should  
also forward biographical data to “The  
NEWSLETTER” by April 20, 1984 for in-  
clusion in the May issue of “The NEWS-  
LETTER.”

Up In The Air Tomorrow

The New York & Long Island Section  
of the Joint Power Engineering Society &  
Industry Application Society will sponsor  
xx

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Ten Microlab Road, Livingston, N.J. 07039 - Attn: R. Vincent  
Equal Opportunity Employer M/F

an April 25, 1984 meeting on “Vertical  
Transportation Looking To The Future.”  
The speaker will be George Strakosch of  
Jaros, Baum & Bolles.  
There will also be election of officers  
for the P&I Division.

Time: 5:30 PM, Wednesday, April 25, 1984.  
Place: Stone & Webster (Training Room)  
One Penn Plaza, 39th Floor, NYC.  
Further Information: Sheldon Heitman  
Westinghouse Co., (201) 328-7700.

Body Scanners  
For Clinical Use

Dr. Raymond Damadian, founder and  
president of Fonar Corp., a leading manu-  
facturer of clinical NMR scanners will speak  
at the Wednesday, May 2 meeting of the  
NY Metropolitan Chapter of the EMBS.  
Dr. Damadian has long been recognized as  
a pacesetter in NMR imaging techniques,  
and holds the first patent granted for  
whole body NMR scanning.  
Dr. Damadian is the author of numer-  
ous articles and books on the nuclear mag-  
netic resonance effect in human tissue. He  
has lectured extensively on the subject  
and has appeared on many television pro-  
grams.

Time: 7:30 PM, Wednesday, May 2, 1984.  
Place: Room 301, Tower Building, Rocke-  
feller University, York Ave. at 66th St.,  
NYC.  
Pre-Meeting Dinner: 6:30 PM, Tower Cafe-  
teria.  
For Further Information: Nina Krouse  
(212) 561-6534; Jeff Kriz (914) 769-6700,  
Ext. 416.

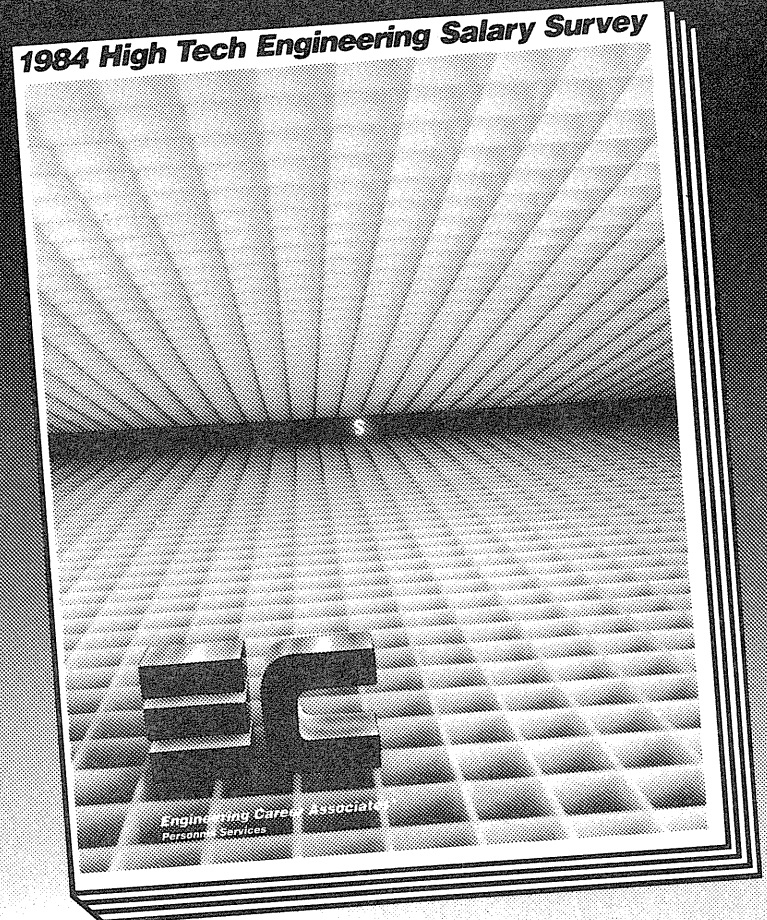
PACE  
NEWS  
Professional  
Activities  
Committee for  
Engineers

By R. Tax

In a letter sent to representatives of New Jersey, House  
Speaker Tip O’Neill and Representative Sam Hall (D-Tex.),  
the North Jersey Executive Committee expressed their em-  
phatic support for Representative Hall’s ‘Return Home’ Am-  
endment to the “Immigration Reform and Control Act.”  
The letter stated that “...There has not been any accurate or  
viable information to support any theories, statements or  
press releases depicting shortages of engineering or technical  
personnel in the U.S.”  
The letter requested the support for a 100% return home  
provision for all foreign students studying in the U.S. at the  
conclusion of their studies without any waivers or exceptions.  
The present Immigration Reform and Control Act, HR1510  
requires students to return home with the exception of engin-  
eering, computer science, math and natural science students.  
Representative Sam Hall’s amendment removes the exemption  
for these students.



# New and Free



## Salaries are higher in 1984 for high tech engineers!

Salaries in electronics are significantly out-pacing those compensation levels paid in other areas of engineering.

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In our new 1984 Survey, you'll not only learn what your peers are earning, but you'll also gain insight on which professionals are expected to earn the most throughout this decade and beyond.

Whether your area of specialization is in CAD/CAM, fiber optics, ATE, computers, semiconductors, instrumentation or another discipline, our report is valuable reading for engineers who wish to advance in the profession.

Not only does our new report provide salary data for 27 position titles, it also reviews techniques you can use to assess your current situation as well as proven strategies you can implement that thousands of other engineers have used to help advance their careers.

### It's free to engineering professionals.

The new 1984 *Electronics Industry Engineering Salary Survey and Trend Analysis* is available without charge.

We publish the Survey as a service to engineers. Engineering Career Associates is a leading recruiting firm devoted exclusively to the engineering profession. Each of our professional staff members is a degreed engineer with extensive experience in engineering.

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New Jersey/New York

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IEEE

Registration Fee:

IEEE Members \$675.00  
Non-Members \$750.00

Lunch not included.  
Cafeteria available on premises.

Attendance limited to first 15 registrations.

LODGING:

A block of room has been set aside at Travelodge Motel  
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(201) 469-5050

Please contact them directly. Identify yourself with the IEEE Course.

Rates: Monday, Tuesday, \$45.00 single or  
& Wednesday double  
Sunday night \$30.00 single or double

PREREQUISITES

Participants should have a background in digital electronics and some previous exposure to a computer language is helpful but not required.

COURSE DESCRIPTION

This three day program will provide the participant with a foundation of the basic principles of computer architecture and operation. The course emphasizes the essentials of computer organization, assembly language programming and the basics of designing microcomputer based systems using an Intel 8085 Micro-

IEEE/EAB

Announces a

SDK-85 MICROCOMPUTER WORKSHOP

on  
May 21, 22, 23, 1984, 8:00 AM to 4:00 PM  
at

IEEE Service Center  
445 Hoes Lane  
Piscataway, N.J. 08854

processor. A fully assembled and tested SDK-85 single-board microcomputer and power supply used for "hands-on" training during the course will be taken home at the completion of the workshop. An informal atmosphere is encouraged to stimulate a practical training program.

INSTRUCTOR

Dr. Edward Page is an Associate Professor of Computer Science at Clemson University in Clemson, SC. He has conducted more than 60 microcomputer courses across the US for many organizations and has served as a consultant to both government and industry on designing microcomputer-based equipment for communications and process control. Dr. Page has published more than 20 papers on microcomputer applications, switching theory and computer architecture.

COURSE OUTLINE

- First Day:  
Binary Arithmetic  
Computer Organization  
Instruction Execution Sequence  
Assembly Language Programming  
Laboratory Exercise
- Second Day:  
Input/Output Techniques  
Subroutines  
Interrupts  
Table look-up Techniques  
Laboratory Exercises
- Third Day:  
The Intel 8085 CPU Set  
Memory Interfacing  
I/O Interfacing  
Using Peripheral I/O Chips  
Laboratory Exercises

## FRANK RELOTTO

Frank Relotto has been active in the IEEE since 1967 when he joined as a student member at the University of Dayton. He moved to New Jersey in 1971 where he has pursued graduate studies at Newark College of Engineering and Rutgers.

In 1974, he joined the Education Committee of the North Jersey Section. In 1976 he organized and taught the first microprocessor course for the Section. The course was repeated three times. More than 265 North Jersey and New York members attended.

Since 1967 he has served the North Jersey Section as a Member-at-Large, Secretary, Treasurer, Vice Chairman and as the 1982-83 Section Chairman. At present he is the chairman of METSAC which is a joint council comprised of the membership from North Jersey, New York, Long Island and Princeton. As of November 1983 METSAC had 17,931 members making METSAC the largest council in the IEEE.

In 1982 the Section awarded him a plaque in recognition of meritorious service in educational activities and to the Executive Committee.

Working in sales since graduation he joined DeVry Technical Institute in 1980 as an instructor. He currently is serving at DeVry as the Dean of the Computer Science Dept. Frank is married and has one child.

## MAX J. SCHINDLER

A Professional Engineer in New Jersey since 1965, Dr. Max J. Schindler has received three patents on magnetic measurement techniques. He received the North Jersey Section Award for innovations he introduced as Section Chairman. He has also won an RCA Engineering Award for professional excellence and support.

Dr. Schindler received a MSEE from the Technical University, Vienna, Austria in 1951. In 1953 he received a DSc. summa cum laude in Solid-State physics.

Most of his professional career has been spent with RCA. From 1958 to 1967 he was an Engineer in the RCA Microwave Division. He then served 1967 to 1970 as a member of the technical staff at RCA's David Sarnoff Research Center. Returning to RCA's Microwave Division he was Senior Engineer and Group Head Mini-TWT Development until 1975.

In 1976 he joined "Electronic Design" as an editor concentrating on technical software. He has been President of Prime Technology since 1979.

## ALAN H. STOLPEN

Alan H. Stolpen is presently a Contract Engineer with T.P. Consultants, and is assigned to AT&T Bell Laboratories, in Whippany, working on State-of-the-Art military power supplies.

Prior to this assignment, Alan was a Senior Project Engineer with Weston Instruments. While at Weston he was responsible for the design of hand held digital multi-meters, custom digital instrumentation, and display technology research.

Prior to joining Weston, Alan spent nine years as a Designer and Project Leader for Computer Power Supplies and associated control circuitry for Conrac, Digital Computer Controls, Singer-Kearfott, and Burroughs. His diverse background also includes six years in quality assurance and reliability, component engineering, and applications engineering.

Alan Stolpen is the co-holder of four patents, and has earned his BSEE (1966) and MSEE (1970) from NJIT.

Alan's IEEE activities in the North Jersey Section started in 1964, as a Student Branch Officer. In 1966 he joined the Newsletter staff as Student Affairs Editor, and progressed to Editor, and then Publications Chairman. He has held offices as Groups Coordinator, New Projects Administrator, Treasurer, Secretary, Vice Chairman, and then Chairman of the Section

## RICHARD F. TAX

Richard Tax has a BSEE degree and is a Senior Member of the IEEE. He was awarded his Senior Membership based on his experience in the design of precision electro-mechanical servo systems.

Mr. Tax received the North Jersey Section Award for Leadership in 1979 and the Region 1, United States Activities Board (USAB) Award for Leadership in 1981. He has been active in the Section since 1974 and was appointed as Chairman of our Professional Activities Committee for Engineers (PACE) in 1976.

As PACE Chairman he organized more than 40 meetings and advised other IEEE Sections on PACE activities. Richard originated and managed Project EGO, a program to stimulate member interest by adding the PACE News column to our Section Newsletter. This project is now in its sixth year and was funded by USAB. He wrote more than 60 articles dedicated

to professional activities.

Richard has actively participated in seven National PACE/USAB Conferences and assisted members of the Service Contracts and Career Maintenance Task Force. In 1977, he started the USAB Task Force for the BLS, Occupational Outlook Handbook.

Richard is presently a member of the USAB Manpower Task Force and a Vice Chairman of the North Jersey Section.

## JOHN F. VAN SAVAGE

John F. Van Savage, is associated with the United States Army Communications and Electronics Command (CECOM) as a senior electronics engineer in its Center for Systems Engineering and Integration.

Mr. Van Savage was the recipient of the North Jersey Section's Meritorious Service Award in 1981. He is the present Treasurer of the North Jersey Section. He was the past chairman of the Control Systems Society and is the immediate past chairman of the New York/New Jersey Section Engineering Management Societies and Member-at-Large, North Jersey Section. He was also active in the Educational Committee and coordinated the CMOS and MOS Circuit Design courses with RCA Engineers who worked in this state-of-the-art discipline.

Mr. Van Savage also serves on the Admissions and Advancements and Fellows and Awards Committee of the IEEE. He served on the IEEE Electro '79 Industry Reception Committee and played a major role in obtaining the 1/50th scale model of the Apollo Space Shuttle from Rockwell International for Electro '79.

## DONALD WEINSTEIN

Donald Weinstein has been active in IEEE membership development since 1977 and is now chairman of the Membership Committee of the North Jersey Section.

He is a Senior Member of the IEEE and a member of ISHM (International Society for Hybrid Microelectronics).

Mr. Weinstein is a Project Engineer at Kulite Semiconductor Products where he is responsible for the development and design of hybrid microcircuit signal conditioning circuits for miniature pressure transducers. He also designs test equipment used by the production departments.

He has received three patents in the analog circuit field.

He received BEE and MEE degrees from New York University.

## NEW FELLOWS

### MELVIN I. COHEN

**"For leadership in research, development, and implementation of light guides for optical communication and lasers for use as a tool in material processing."**

Melvin I. Cohen was born in New York City on June 25, 1936. He received the BS and MS degrees in Mechanical Engineering from MIT in 1957 and 1958, respectively, and the PhD degree in Mechanics from Rensselaer Polytechnic Institute in 1964, where his topic was the flow of blood in the human arterial system.

From 1958 to 1960 he worked for Pratt & Whitney Aircraft Division, United Aircraft Corp., on exploratory design and development associated with aircraft propulsion systems. In 1964 he began studies on laser processing of materials at Bell Telephone Laboratories, Murray Hill, N.J., becoming supervisor of the Laser Processing Studies Group in 1968. In 1972 he became Assistant Director at Western Electric's Engineering Research Center in Princeton, N.J., with responsibility for corporate R&D programs in lasers, optics and fiber optics.

Dr. Cohen returned to Bell Labs, Murray Hill in June 1979, as Head, Crystal Growth and Glass R&D Department.

In his current position, Dr. Cohen is Director, Interconnection Technology Laboratory, Bell Labs, Whippany.

### DANIEL L. GOLDBERG

**"For innovative engineering of large transportation facilities."**

Daniel Goldberg, Chief Electrical Engineer of the Engineering Department of the Port Authority of New York and New Jersey, obtained his Bachelor's and Master's degree in Electrical Engineering from the New Jersey Institute of Technology in 1949 and 1950, respectively. He is a registered professional Engineer in both New York and New Jersey.

Mr. Goldberg has been employed by the Port Authority for thirty-four years; his first responsibilities included supervision of an engineering test and protective relaying group. For a number of years, Mr. Goldberg was in charge of major electrical power systems rehabilitations with

the Port Authority including the Holland and Lincoln Tunnels. For fifteen years, he has directed the Port Authority's electrical activities in the design of new and expanded electrical systems for airports, tunnels and bridges, marine and land terminals, and other transportation facilities such as J.F. Kennedy International Airport, Newark International Airport, LaGuardia Airport, and the Bus Terminal. His most recent major responsibility was the development of a program for and the implementation of the design of a new distribution and traction power system for the fifty-year-old Port Authority Trans-Hudson (PATH) rapid transit system. He has recently received the Port Authority Distinguished Service Medal.

### EDWARD H. NICOLLIAN

Mr. Nicollian received an ME from Stevens Institute of Technology in 1951 and an MA in Physics from Columbia University in 1956.

He was a member of the Technical Staff at Bell Laboratories in Murray Hill from 1957 to 1983 where he worked in the metal-oxide-semiconductor field and co-authored a book entitled "Metal Oxide Semiconductor Physics and Technology" published in 1982.

Since September 1983, Mr. Nicollian holds a joint appointment as Distinguished Professor of Engineering Science at the University of North Carolina at Charlotte and with the Microelectronics Center of North Carolina. He is presently working to establish a research and academic program in microelectronics at the University of North Carolina at Charlotte.

### AARON E. ROSENBERG

**"For contributions to speech and speaker recognition."**

Aaron E. Rosenberg was born in Malden, Massachusetts in 1937 and attended public schools there. He received the SB and SM degrees in electrical engineering from MIT in 1960 and a PhD in electrical engineering from the University of Pennsylvania in 1964.

He is a member of the technical staff in the Acoustics Research Department at AT&T Bell Laboratories, Murray Hill, New Jersey. He has been at Bell Labs since 1964 where his research interests have included auditory psychophysics, speech perception,

and currently, speech and speaker recognition.

Dr. Rosenberg has authored or co-authored over 35 papers in these fields. In addition to IEEE, he is a member of Sigma Xi, and a fellow of the Acoustical Society of America. He is currently a member of the IEEE Acoustics, Speech, and Signal Processing Society Administrative Committee and the ASSP Society Conference Board. He has served as Associate Editor for Speech Processing for the ASSP Transactions and is Chairman of the ASSP Society Technical Committee on Speech Processing.

### J.W. SCHAEFER

**"For the invention of the command-guidance principle for ground-to-air/space intercept of an intruding aircraft/missile."**

Jacob W. Schaefer is Executive Director of the Military Systems Division at Bell Laboratories, Whippany, N.J. He is responsible for all the research and development work performed by Bell Labs for the Department of Defense.

Mr. Schaefer joined Bell Laboratories in 1941 and was initially concerned with the design of the M-9 electronic anti-aircraft director. For more than 23 years, Mr. Schaefer was involved in work on air defense systems.

He later served in management positions at the Whippany, N.J. Laboratory. In 1963, he was appointed director of the company's Kwajalein Field Station in the Marshall Islands.

He returned from Kwajalein in 1965 and was appointed director of Bell Labs' Data Communications Laboratory in Holmdel. He was appointed Executive Director of the Data and PBX Division on March 15, 1968. In June, 1979, he was appointed Executive Director of the Business Terminals and Mobile Communications Division. Early in 1980, he became the Executive Director for Corporate Education Programs, and he assumed his present post in November, 1981.

A native of Iowa, Mr. Schaefer received a bachelor's degree in mechanical engineering from the Engineering College of Ohio State University in 1941.

### STEPHEN B. WEINSTEIN

**"For contributions to the theory and practice of voiceband data communications, and to IEEE publication activities."**



