

TO
VOTE
FOR SECTION
OFFICERS
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THIS BALLOT
BE SURE TO SIGN ON
OTHER SIDE BEFORE
MAILING BY
MAY 31, 1985

Please sign on other side in space indicated.

Chairman	Treasurer
<input type="checkbox"/> Richard Tax	<input type="checkbox"/> Robert Sinusas
Vice Chairman 1	Secretary
<input type="checkbox"/> John Van Savage	<input type="checkbox"/> Howard Leach, Jr.
Vice Chairman 2	Member-At-Large
<input type="checkbox"/> Charles Coulomb	(Vote for three only)
	<input type="checkbox"/> John Baka
	<input type="checkbox"/> George Graul
	<input type="checkbox"/> Frank Kuhl
	<input type="checkbox"/>
	<input type="checkbox"/>

NJ Section Ballot
1985-1986

All grades of membership, except students, should vote for one candidate for each office (except members-at-large).

JOHN BAKA — Member-At-Large

John Baka is a Senior Engineer at Jersey Central Power and Light Company in Morristown, New Jersey. He is assigned to the Planning Department and is responsible for the Distribution Planning and Project Management Activities for the Northern Area.

John has served as Secretary, Program Chairman, Vice Chairman and Chairman for the Power Engineering Society of the North Jersey Section IEEE. He was also active in administering review courses for preparation for the Engineer in Training and Professional Engineering Exams and a seminar on distribution systems transients.

He serves his community of Hanover Township as a member of both the Planning Board and Environmental Commission. He is also Treasurer of St. Gregory's Episcopal Church in Parsippany-Troy Hills Township and serves as a Panel Manager on the Planning and Allocations Division of the United Way of Morris County.

John graduated from Newark College of Engineering with a BS in Electrical Engineering. He received an MBA from Wright State University in Dayton, Ohio.

GEORGE D. GRAUL — Member-At-Large

George D. Graul is now serving as Chairman of the Student Activities Committee of the North Jersey Section and Chairman of the NY Chapter of the Vehicular Technology Society. He has also served as Chairman of PACE for the New York Section.

A Senior Member of the IEEE, Mr. Graul's other professional memberships include the Radio Club of America and NARTE. He has taught at RETS in Nutley, N.J. and TCI in NYC.

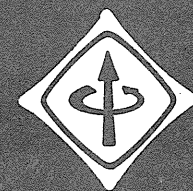
Presently retired, he has served as Chief Engineer of 800 Cellular; Assistant Director of Training at W.H.T.

FRANK KUHL — Member-At-Large

Dr. Frank Kuhl is presently a Member-At-Large. He is a senior member of IEEE and has been chairman of the North Jersey Section of the IEEE Control Systems Society. He is the author of numerous technical publications and is a licensed professional engineer.

Dr. Kuhl received the BS and MS degrees from Columbia University in 1957 and 1958 respectively, and the Dr Eng Degree from Yale University, in 1963.

His primary interest is in pattern recognition in the areas of polarized, radar-backscatter classification of arbitrary targets in free space and, also, image processing of alphanumeric characters and raster-scanned pictures. He has done this work mostly at Raytheon Corp., Bedford, Mass. (1963-67) and Union College, Schenectady, N.Y. (1968-1977). He has also worked at Singer-Kearfott Co., Wayne, N.J. (1974-1977) and ITT, Nutley, N.J. (1977-1978) where he created and simulated Kalman Filters for TACAN and other navigational aids. He has worked at the U.S. Army Armament Research and Development Center, Dover, N.J. since 1978 where he is leading projects in tactical imagery recognition and target-trajectory estimation.



The IEEE

Newsletter

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MAY, 1985

Volume 31, Number 11

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NEWSLETTER STAFF

Editor M.M. Perugini
Business Manager A.M. Beattie

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(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.

SECTION OFFICERS

Chairman Eugene Niemiec 239-4389
Vice Chairman-1 Richard Tax 391-9075
Vice Chairman-2 John Van Savage 544-2334/2412
Treasurer Charles Coulomb 455-8547
Secretary Robert Sinusas 288-2000, X-4358
Member-At-Large Richard Aiken
Member-At-Large Frank Kuhl
Member-At-Large Howard Leach Jr.
Past Chairman Anne Giedlinski

Cochlear Modeling

The newly-formed North Jersey Chapter of the Acoustics, Speech, and Signal Processing Society will sponsor a May 21, 1985 talk by Jont B. Allen, whose article "Cochlear Modeling" was featured in the January issue of "ASSP Magazine." Dr. Allen will examine how information is carried and transformed on its way to the brain of the listener: "Through analysis of speech signals by signal processing methods, one may explain many aspects of the speech generation process. In an analogous manner, one may follow the speech signal through the auditory system as it is processed by the cochlea." This talk represents a unique opportunity for ASSP members and their guests to become acquainted with a fascinating area of research. A pre-meeting dinner will be held. Please contact Greg Mackintosh by May 13th for dinner reservations.

About The Speaker

Jont B. Allen received the BS degree in Electrical Engineering from the University of Illinois, Urbana-Champaign in 1966, and the MS and PhD degrees from the University of Pennsylvania in 1968 and 1970 respectively. He then joined Bell Laboratories, Holmdel, N.J. in 1970 and transferred to the Acoustics Research Department in Murray Hill, N.J. in 1974.

Dr. Allen is presently working in the areas of cochlear modeling, cochlear neurophysiology digital communication theory and in digital signal processing applications. Some of his applied interests are in speech coding, room acoustics, dereverberation of speech signals and psychophysical modeling of room reverberation. His theoretical interests include short-time Fourier transform theory and cochlear modeling. Dr. Allen is a Fellow of the Acoustical Society of America and a Fellow of the IEEE. He is presently chairman of the Publication Board of the Acoustics Speech and Signal Processing Society and is a member of ADCOM of the same IEEE Society. He is a past editor of the ASSP and has

served on several committees in both the IEEE and the Acoustical Society.

Time: 7:30 PM, Tuesday, May 21, 1985

Place: Jersey Central Power & Light Co., Madison Ave. (Rt. 24) at Punch Bowl Rd., Morristown, N.J.

Pre-Meeting Dinner: 6 PM, Rod's 1890's Ranch House, Madison Ave. (Rt. 24), Convent Station.

Dinner Reservations: (by May 13th), Greg Mackintosh, AT&T Bell Labs, 2E-218B, Whippany Rd., Whippany, N.J. 07981, (W) (201) 386-4560, (H) (201) 361-6255.

Reliability Management

The North Jersey Section's recently re-activated Chapter of the Reliability Engineering Society will meet on May 21, 1985 to reorganize for the 1875-1986 program year.

The featured speaker will be Dr. Larry H. Crow, Chief, Reliability Methodology Office, U.S. Army Materiel Analysis Activity, Aberdeen Proving Ground, whose topic will be "An Introduction To Reliability Management Strategies And Effectiveness Factors."

Larry is well known for his work in Reliability Growth Management, having chaired the Tri-Services committee that developed the Department of Defense Handbook on Reliability Growth Management. He has authored several papers on analysis of reliability growth data.

In addition to the featured speaker, we will hold a "round table" discussion on programs for the upcoming year. We will welcome discussion of your needs and desires for programs, and any ideas you may have for expanding Chapter operations.

Admission is free and all are welcome.

Time: 8 PM, Tuesday, May 21, 1985.

Place: ITT Auditorium, 500 Washington Avenue, Nutley, N.J.

For Further Information: Ray Sears (201) 386-2259.

Tax Awarded USAB Citation Of Honor

Richard F. Tax, Vice Chairman of the IEEE North Jersey Section has been awarded the United States Activities Board Citation of Honor for 1984. This is an award presented annually to an individual who has made outstanding contributions toward achieving recognition of national professional activities. By professional activities as distinguished from technical activities, we mean matters directed toward the advancement of the standing of the members of the profession of engineering.

The citation for Mr. Tax’s award reads, “The USAB citation of honor presented to Richard F. Tax for exemplary effort and dedicated service toward attaining recognition of engineering professionalism in the United States.”

Mr. Tax’s biography follows.

Richard Tax

Richard Tax has a BSEE degree and is a Senior Member of the IEEE. Although his experience is diversified, he was awarded his Senior membership based on his experience in the design of precision electro-mechanical servo control systems.

Mr. Tax received the North Jersey Section Award for Leadership in 1979, the Region 1 United States Activities Board (USAB) Award for Leadership in 1981 and the IEEE Centennial Medal in 1984. He has been active in the Section since 1974 and was appointed Chairman of our Professional Activities Committee for Engineers (PACE) in 1976. Richard has served the Section as a Member-at-Large, Vice Chairman and member of the Educational Committee.

As PACE Chairman he obtained Section support to extend coverage of the IEEE Code of Ethics to include all IEEE Members and not only engineers.

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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. With Congressional assistance this Task Force made significant corrections to the Handbook. He directed the efforts of this operation for six years. This project is now supported by the USAB Manpower Task Force.

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

IBM’s CAD/CAM Line

Mr. Jorge Vidal of IBM will provide an overview of CAD/CAM and describe part of the IBM CAD/CAM product line at the May 22, 1985 meeting of the Computer/Communications Chapter of the North Jersey Section.

About The Talk

Mr. Jorge Vidal will use video disk programs to explain CAD/CAM and the CAD/CAM products that IBM offers to address the needs of design and manufacturing engineers. The products covered will include the 5080 Graphics, CADAM BASIC, CADAM NC, CATIA, and CAEDS systems. The Circuit Board Design System (CBDS) may be covered; however, if attendance is dependent on CBDS coverage, please call to confirm presentation content.

A CAD/CAM system has the potential to substantially reduce design cycle time, improve product quality, reduce manufacturing costs, and improve communications. In addition to being a leading CAD/CAM vendor, IBM has also been an extensive user of CAD/CAM systems. The presentation will also show how IBM’s use of CAD/CAM systems have improved the productivity of the design and manufacturing process.

About The Speaker

Mr. Jorge Vidal recieved his BSME from the New York Institute of Technology. He has four years of experience in the application of CAD/CAM systems in the aerospace and automotive industries. Currently, Mr. Vidal is an Account Systems Engineer within the IBM N.J. Manufacturing Branch Office located in West Orange, N.J. He has worked on CAD/CAM projects for GM, Lockheed, Bendix, and Auto Switch.

Everyone is welcome, IEEE membership is not required to attend. Refreshments will be served.

Time: 8:00 PM, Wednesday, May 22, 1985.
Place: Jersey Central Power and Light Co., Rt. 24, Madison ave., at Punch Bowl Rd., Morristown, N.J.
For Directions or Optional Dinner Reservations: George Pick (201) 884-6040; Howard Leach (201) 540-1283 after 7 PM.

Developing NJ Hudson River Waterfront

The May 21, 1985 meeting of the North Jersey Section’s IEEE Power Engineering Society Chapter will feature a presentation on the planned development of probably the most valuable real estate in the United States today--the New Jersey Hudson River Waterfront.

Once a thriving industrial center, this region has in recent years become the site of abandoned rail yards and underutilized factories. Now both private developers, the Port Authority of New York and New Jersey, the City of Jersey City and the State of New Jersey are planning to spend billions of dollars on the rebirth of this area. The total scope of potential development is mind-boggling.

Mr. Stephen Kukan, Manager - Area Development, PSE&G, will highlight specific planned development along this 18-mile strip of land covering some 2300 acres from the George Washington Bridge to Bayonne. Mr. Kukan will provide insight into the overall impact on the local economy and stature of this waterfront region.

This presentation will be particularly interesting to anyone who has ever resided in, been employed in, or is just familiar with this Waterfront, its history or its strategic position.

Attendance at the meeting is free, and open to all interested parties. There is limited on-street parking available. Parking is also available at the Kinney Parking Garage (next to Seton Hall Law School), or the Military Parking Garage (under Military Park).

Time: 4 PM, Tuesday, May 21, 1985.
Place: Public Service Electric & Gas Co., 80 Park Plaza, Newark, N.J. - Second Floor Conference Area.
Further Information: Dennis Sobieski (201) 430-6698.

CHARLES A. COULOMB – Vice Chairman – 2

Charles A. Coulomb joined Jersey Central Power and Light Co., in 1963. He has held positions in facility planning, forecasting and project management. Presently, he is Distribution Planning Manager in charge of distribution facility planning and project management. His IEEE activities include Treasurer, Secretary, and Publicity Chairman of the North Jersey Section as well as a member of the Admissions and Advancement Committee and an Electro committee member.

ROBERT SINUSAS – Treasurer

Robert Sinusas has been involved with the Executive Committee of the North Jersey Section of the IEEE since 1975. During 1975-1976 he was the Chairperson of the Socio-Economics Committee. The Socio-Economics Committee was the forerunner of the present PACE Committee. Since 1979 he has held the position of Group Coordinator and has been involved in forming new groups and societies in the North Jersey Section. He has served as Member-at-Large since 1981. This past year he has been Secretary of the Section.

For his undergraduate studies he attended Drexel University in Philadelphia, Pa. He continued his graduate studies at the New Jersey Institute of Technology in Newark. He has worked and consulted for a number of companies in the North Jersey area; Fairchild, Monsanto, Dumont Labs, Weston and Bendix. He is currently associated with Allied Bendix Aerospace.

HOWARD H. LEACH, JR. – Secretary

Howard H. Leach, Jr., currently serving as a Member-at-Large, is a Senior Member of the IEEE. He has been on the Computer/Communications Chapter executive committee for the last four years, one as chairman and two as vice chairman. Mr. Leach holds a BSEE degree from RPI, a MSEE degree from Union College, Schenectady, N.Y., as well as a PE license in N.J. Mr. Leach is an Advisory Systems Engineer with IBM in the N.J. Communications South branch office, Piscataway, N.J.

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Ballot Signature

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ship, usually under the guidance of an older, experienced engineer, to be able to work independently. During this period of informal apprenticeship the freshout engineer learns aspects of engineering practice in industry that are not taught in academia.

In the second place, as the young engineer continues to work in industry, he or she continues to learn more in the course of completing project work assignments. As the number of years since completion of his or her formal education increases, the knowledge acquired while studying for the degree(s) constitutes a progressively smaller proportion of the knowledge applied to assigned projects.

Thirdly, although the specific hardware (and software) involved in the industrial practice of engineering change fairly rapidly, the underlying fundamentals of engineering practice change relatively slowly. Moreover, “publish or perish” pressures tend to produce a proliferation of publications that is likely to be out of proportion with the rate at which useful new knowledge is developed. Hence, the application of the “half life” concept to the correlation of engineering competence with elapsed years since completion of formal education is questionable at best.

In view of the above cited shortcomings of the article that appeared in “THE INSTITUTE” and the report by Leventman and Pierce⁽¹⁾ from which it was abstracted one might well ask why engineers with substantial industrial experience apparently were not offered more opportunity to contribute to a report by two members of the Northeastern University staff, one of whom is closely associated with the university’s school of engineering. Who would have a more valid view of the day-to-day working conditions of an engineer in industry than the actual practioner? Could it be that the social scientists involved in these studies subscribe to the popular stereotype of engineers and scientists as lacking in communication skills? If so, perhaps it is high time to point out the existence of technically trained individuals who are sufficiently articulate to speak and write for themselves. An example of such an individual might be L.B. Zambon, Vice President-Engineering for American Airlines whose letter⁽⁴⁾ to the editors of the “HARVARD BUSINESS REVIEW” commenting on the article by Dalton and Thompson⁽²⁾ was published in a later issue. It is remarkable that Leventman and Pierce did not even cite Mr. Zambon’s thoughtful contribution to this topic.

In summary, Leventman and Pierce’s report was not of such quality as to deserve widespread credibility in the engineering and technical management communities. Those responsible for content of “THE INSTITUTE” should have reviewed the report more carefully before publicizing it, quoted from it with more regard for the context of the quotes and avoided writing a headline so suggestive of yellow journalism.

References

- (1). Leventman, Paula G. and Glenn Pierce, “Assessment of Lifelong Learning Program Needs for Engineers and Scientists in Massachusetts High Technology Companies,” Massachusetts High Technology Council, September 10, 1984.
- (2). Dalton, Gene W. and Paul H. Thompson, “Accelerating Obsolescence of Older Engineers,” Harvard Business Review, September-October, 1971, pp. 57-67.
- (3). Dubin, Samuel, “Obsolescence or Lifelong Education: A Choice for the Professional,” American Psychologist, May, 1972, pp. 486-498.
- (4). Zambon, L.B., “Re: ‘Accelerating Obsolescence of Older Engineers’,” Harvard Business Review, January-February, 1972, pg. 31.

1985-86 SECTION
OFFICERS NOMINATIONS

RICHARD F. TAX – Chairman

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 is currently a Vice Chairman of the North Jersey Section. He 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. Richard has also served the Section as a Member-at-Large.

As PACE Chairman he obtained Section support to extend coverage of the IEEE Code of Ethics to include all IEEE Members and not only engineers. He was responsible for extending Section Executive Committee and PACE meetings to include the summer months, thus maintaining Section activities and continuity throughout the year.

As PACE Chairman he organized more than 40 meetings and advises other IEEE Sections on PACE activities. Richard organized 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 7th year and was funded by USAB. He wrote more than 60 articles dedicated to professional activities.

Richard has actively participated in eight National PACE/USAB Conferences and assisted members of the Service Contracts and Career Maintenance Task Force.

JOHN F. VAN SAVAGE – Vice Chairman – 1

John 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 is a recipient of the IEEE Centennial Medal. He was awarded the North Jersey Section Meritorious Service Award in 1981. Mr. Van Savage is currently a Vice Chairman of the North Jersey Section. Previously, he served as Treasurer. He is a past chairman of the Control Systems Society and a past chairman (1982-83) of the New York/North Jersey Section Engineering Management Societies. He was a Member-at-Large, North Jersey Section in 1982-83. 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 IEEE Admissions and Advancements and North Jersey Section Fellows and Awards Committee. 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. He is a member of the New York Academy of Science and SIGMA XI, the Scientific Research Society of North America, the American Physical Society and other electronic-defense orientated organizations.

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NEW YORK, NORTH JERSEY AND LONG ISLAND JOINT CHAPTER
INSTRUMENTATION AND MEASUREMENT SOCIETY

SPRING SEMINAR

Date: Thursday, May 16, 1985 Time: 10 AM to 3 PM (Lunch Included)
Place: “Harry’s At 1 Hanover Square,” New York, N.Y. 10004
Special elevator entrance at 93 Pearl Street--3rd Floor Meeting Room

ERROR ANALYSIS ON DIGITAL LINKS

Error analysis in digital communication equipment and links is a relatively new and powerful tool for both public and private networks. This portion of the seminar will discuss why and when analysis is performed and figures of merit in error analysis. The seminar will also encompass the following topics:

- 1. Fault isolation using bit error rate techniques
- 2. In-depth explanation of T-1 and how to perform testing
- 3. Acunet reserved, Skynet, T-1 (D-4 Framing)
- 4. Overview of satellite communication testing problems

SPEAKER: Mr. Joseph A. Sciulli, President, Telecommunication Techniques Corp. Formerly manager of the Voice and Data Processing Branch of COMSAT Labs. Lectured extensively on satellite and terrestrial telecommunications. Currently co-authoring a book entitled “Satellite Communication Systems Engineering”.

ANALOG TESTING IN A DIGITAL WORLD

The telecommunications industry has its attention focused on all forms of digital transmission and switching. Yet, the bulk of traffic carried over the networks is voice. This portion of the seminar will present a perspective on today’s digital network with emphasis on new trends and technologies. Special attention will be devoted to test equipment used in the mixed analog digital environment. Particular attention will be paid to accessing VF to PCM bit streams.

SPEAKER: Mr. Russell Cox, Program Manager for ADC Telecommunications. Mr. Cox has worked extensively on analog and PCM test equipment and has been associated with telephony for many years. Mr. Cox is also a registered P.E. and a member of the IEEE.

FURTHER INFORMATION

Contact Ken Jacobsen/Friedman Associates, Inc. (201) 964-6200. Registration will be limited. IEEE Members \$40.00; Non-Members \$50.00 -- GUARANTEE YOUR REGISTRATION BY CHECK PAYABLE TO: “IEEE I&M JOINT CHAPTER.”

Registration for I&M SPRING SEMINAR -- May 16, 1985

TO: Ken Jacobsen, Friedman Associates, Inc., 2424 Morris Ave., Union, N.J. 07083

Name _____ IEEE No. _____

Affiliation _____ Phone No. _____

Address _____

Please enclose required fee made payable to “IEEE I&M JOINT CHAPTER”
SPACE LIMITED — ADVANCE REGISTRATION RECOMMENDED

Engineer Honored

Another North Jersey Section member has been honored as a Centennial Young Engineer. Dr. Marvin R. Sambur of Denville, who is a Vice President and Director of Operations at ITT Corporation in Clifton, received his “Centennial Key to the Future” from IEEE President Richard J. Gowen at a recent IEEE banquet.

Executive Committee
Meeting Open To All

The Executive Committee of the North Jersey Section of IEEE holds its monthly meeting the first Wednesday of each month. Open to all members of the North Jersey Section, the meetings are at 7:30 PM at JCP&L, Madison Avenue and Punch Bowl Road, Morristown.

For additional information and travel directions call the Section Secretary at the number listed on the front page of this issue.

NJ PACE Meetings

Monthly meetings of the North Jersey PACE Committee will be held at the ITT Tower Lobby, 500 Washington Avenue, Nutley, N.J. at 8 PM on the second Wednesday of every month. Free refreshments will be offered to all.

There are many active hot PACE Projects funded by IEEE’s USAB from which you benefit. Here’s your chance to learn about them and give your input!

Call Maitland McLarin, PACE Chairman at (201) 335-6847 for additional information.

E. E. MANAGER

Major New Jersey Company seeks E.E. with 10-15 years experience in heavy power equipment and large electrical motors. Design experience and the ability to purchase, install and start up this equipment is necessary. MSEE or PE and supervisory experience is a plus. Salary 45 to 50K. Send resume in confidence or call:

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Student Activities

By STELLA LAWRENCE

PLAN FOR 1985-86: VINCENT BENDIX AWARD

As another successful year draws to a close, plans should be made for 1985-86. In cooperation with the Bendix Corporation, the IEEE administers an annual Student Branch Award program known as the Vincent Bendix Awards. Awards in amounts not exceeding \$500 are made to individual Branches to finance an undergraduate Student Branch project.

The Bendix Award Competition can be many things. It can be a source of cash for your Branch. It can be great EXPERIENCE for you in handling practical engineering problems. It can even be FUN! Your Branch can receive up to \$500 to fund imaginative projects, likely to contribute to the professional development of Student members and the strength of the Student Branch.

Past winning proposals have included an "Amateur Radio Station", "Versatile Telephone Communicator for the Hearing and Speech Impaired", "Videographic Display System" and "Grain Moisture Analyzer."

Each IEEE Student Branch may submit one proposal each year. Joint proposals (two or more branches) are also permitted. Proposals must be approved by the Student Branch Counselor.

Now is the time to start preparing your Branch proposal. Perhaps work on your summer job, or on a summer hobby or summer project can be the start of a winning proposal! Proposals must be received at IEEE headquarters by the deadline date approximately November 15 (tentative).

Proposals should be sufficiently informative to enable the judges to determine that the proposed project will adequately meet the following characteristics: Be imaginative, be likely to strengthen the

students' professional development and feeling of professional identity and be likely to contribute to the strength of the Branches program.

The goals of the proposal should be stated clearly and there should be good evidence in the proposal that a major number of Student Branch members will be involved in a useful, imaginative project.

To meet the above objectives the proposal should state at minimum, exactly what is proposed; exactly how it will be carried out; what has been done with any previous support which may have been granted the project; and if the grant of the requested fund would enable other support for the project.

For additional details consult your Branch Counselor or the Chairman of the New York Section Student Activities Committee.

REGION 1 PRIZE PAPER CONTEST

The Region 1 Prize Paper Contest was held in conjunction with ELECTRO/85 on April 23, 1985 at the Sheraton Centre Hotel, in New York City. The names of the prize winners in the Metropolitan area will be announced in the next issue.

METROPOLITAN STUDENT COUNCIL PRIZE PAPER CONTEST

The annual MSC Prize Paper Contest supported by METSAC, the Metropolitan Sections Council, was held on Sunday, April 14, 1985 at Rutgers University.

Contest Secretary Edward Farkas will announce the prize winners, and their names will appear in our next issue.

THE HICKERNELL AWARD—A STUDENT AWARD IN POWER ENGINEERING

At the IEEE Power Engineering Society annual Winter Power Meeting a program of special interest to students was presented by the Power Engineering Education Committee.

Power Engineering is a broad, challenging, and dynamic career field including: producers and distributors of electrical energy; manufacturers of power apparatus and equipment; users of energy; consulting engineering, power engineering education.

The Hickernell Award has been created to stimulate and encourage interest among students and faculty in electric power engineering. It is hoped that through student and faculty participation, the stimulating, creative and dynamic aspect of electric power engineering would evolve as a

field of intensive interest among them and help maintain its stature as a desirable career field.

The Award

The author of the winning Student Prize Paper will receive an award of \$1000; a certificate, suitably inscribed; a brochure on the Hickernell Award. In addition, a plaque will be provided, honoring and recognizing the engineering teacher, designated by the student, who stimulated the interest in power engineering and provided guidance to the awardee.

How To Qualify For The Award

A student qualifies for the Hickernell Award if:

1. He is a regularly registered engineering student (day or evening) in a program leading to the bachelor's or Master's Degree in Electrical Engineering.
2. He prepares a technical paper which advances the art of power systems engineering including energy generation, conversion, transmission distribution and utilization, and the planning, design, construction, operation, control, protection and maintenance of electrical power equipment and systems.
3. He submits a short biography of his education, experience and professional goal, including a 100 word statement of how he became interested in power engineering or the subject of his paper.
4. He submits a reference, this person may be an educator who inspired him to write and submit his paper.

One or more students may collaborate on a paper. Work performed towards a PhD degree is not eligible for the Hickernell Award.

Deadline for submitting papers is June 15, 1985.

A jury of distinguished power engineers, selected by the Power Engineering Education Committee, will determine the recipients of the Hickernell Award. The judges will emphasize the following: Originality; Analysis and development of subject; Clarity and conciseness; Organization and style; Contribution to power engineering and suggestions for future work.

How To Submit Papers

Papers should be sent to the Hickernell Scholarship Award, IEEE Power Engineering Society, 345 E. 47 Street, New York, N.Y. 10017.

Why not put your ideas down on paper and win an award? Do not delay, there is still time to write and submit a paper before June 15!

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PACE NEWS

By R. Tax

Professional Activities Committee for Engineers

The North Jersey Section's Ad Hoc Committee has completed its critique of the study "Assessment of Lifelong Learning Program Needs for Engineers and Scientists." The study was prepared by two researchers from Northeastern University and sponsored by the Massachusetts High Technology Council. Their 22-page study referred to engineers and scientists as technologists and said the "statistically typical electrical engineer can now expect to face 30 years of declining productivity until retirement."

The North Jersey Critique, challenges the report and calls its title a smoke screen. The first draft of the critique was sent to IEEE's "THE INSTITUTE" in time for their June issue. On May 1, 1985 the critique will be delivered to the North Jersey Section's Executive Committee.

The following article by Fred Chichester is included in the appendix of the critique and should give you some insight to the committees findings.

"EE Obsolescence..."— A Point Of View By Dr. FREDERICK D. CHICHESTER

The article "EE Obsolescence is Predicted in Massachusetts," "THE INSTITUTE" December, 1984, presents such a dismal picture of the decline in competence of engineers in industry as the number of years since the completion of their formal education increases that it appears to be a vehicle for justifying either the wholesale replacement of older experienced engineers with young freshouts or forced participation by older engineers in expensive and time consuming continuing education courses of dubious merit. This pessimistic view of older engineers is not well supported by either the report by Leventman and Pierce^{(1)*} or by earlier publications on this subject, Dalton and Thompson⁽²⁾ and Dubin⁽³⁾, quoted in the Leventman and Pierce report. It certainly is not supported by the overwhelming majority of the older engineers consulted by this writer. It also should be noted that none of the publications cited above was written by an engineer with substantial industrial experience. The lack of this perspective appears to have spawned some shortcomings in both the article appearing in "THE INSTITUTE" and the report from which it was abstracted.

For example, the article published in "THE INSTITUTE" could be construed as justifying the systematic replacement of older by younger ones because the following crucial statement from the report by Leventman and Pierce was omitted. "Companies can no longer deal with the obsolescence problem by laying off older technologists, a practice frequently thought necessary, but one which was hardly desirable." The omission of such a statement by "THE INSTITUTE" is hardly supportive of the older engineer in industry.

Even more harmful to the long term career prospects of engineers, however, is the following statement from the article in "THE INSTITUTE." "Managers consider engineers beyond their prime at 33 years of age while engineers extend the estimate to age 37." This statement resulted from a synthesis of two statements in the report by Leventman and Pierce⁽¹⁾ which, in turn, summarized findings in the article by Dalton and Thompson⁽²⁾ that appeared in the "HARVARD BUSINESS REVIEW" in 1971. In other words, this portion of the report by Leventman and Pierce was a republication of results that were nearly 14 years old! Furthermore, the statements reported represented tabulation of a survey taken still earlier at a time when engineering employment was in the midst of a severe decline, a climate likely to foster especially pessimistic responses from engineers concerning their career prospects. It would seem, therefore, that statements based on such old surveys are themselves vulnerable to the charge of obsolescence.

In the report by Leventman and Pierce⁽¹⁾ there is an implicit assumption that an undergraduate curriculum supplies nearly all of the knowledge that is required for an engineering career in industry and that the competence of the engineering graduate declines exponentially with the number of years elapsed since graduation. This assumption is open to challenge in several respects.

In the first place, very few engineers come out of undergraduate training completely equipped to function independently as engineers. Nearly all freshouts require a period of informal apprentice-

*Number in parentheses identify references listed at the end of this review.