



## NEWS SUMMARY

### BOARD ELECTS 129 FELLOWS: NOMINATIONS ENCOURAGED FOR FUTURE ELECTIONS

The Board of Directors has elected 129 members as Fellows. Their names, citations and Section/Society membership are presented in an insert with this issue of EE. In response to the Fellows' requests, Sections or Societies have been furnished the certificates to be presented to the individual Fellow.

Fellow nomination kits, to be used for submission of future nominees, are available upon request. The kit includes detailed guidelines to assist the nominator in the effective preparation of the nomination form. Because a substantial number of elections to Fellow grade occur upon resubmission, nominators are encouraged to resubmit their candidates.

Dolores Wright  
212-644-7750

### DEADLINE FOR FIELD AWARD NOMINATIONS COMING UP FAST; NEW AWARD SET

April 1, 1981 is the deadline date for nomination of candidates for IEEE Field Awards. This year a new Field Award in Control Systems Science and Engineering becomes the fourteenth such award given for exemplary contributions to a specific field of engineering related to the IEEE.

Your participation in this important IEEE Awards Program is encouraged, as it is you, the individual member, who can assist worthy candidates in receiving the much deserved recognition for their contributions.

Forms and information are available from headquarters.

Una B. Lennon  
212-644-7882

### ANNUAL AWARDS RECEPTION

The 1981 IEEE Annual Awards Reception will be held during ELECTRO/81 on Tuesday, April 7, 1981. The Reception will be from 6:00 p.m. to 9:p.m. in the Imperial Ballroom of the Sheraton Centre in New York, N.Y. This major annual event is highlighted by the presentation of the highest IEEE Medals and Awards including the Medal of Honor, and the induction of the new IEEE Fellows.

The admission charge is \$15.00; tickets will be sold at the door.

### 1981 REVISED CONSTITUTION, BYLAWS, POLICY, DISTRIBUTED

All major organizational units of the IEEE have now received the 1981 documents covering bylaws, policies, procedures and copies of the revised IEEE Constitution. In addition to reflecting changes included in addenda issued during 1980, these include significant changes arising from the Constitutional amendment approved in November. If you have not received these documents or need additional copies please contact your respective headquarters staff operation.

In subsequent issues of EE, all bylaw and policy changes will be noted with information on how to obtain addenda as these are issued.

Emily Sirjane  
212-644-7757

### IRVING ENGELSON NAMED STAFF DIRECTOR FOR IEEE TECHNICAL ACTIVITIES

The appointment of Dr. Irving Engelson as Staff Director of Technical Activities has been announced by Eric Herz, Executive Director and General Manager.

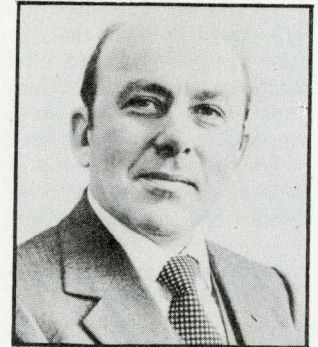
Dr. Engelson has been a member of the IEEE since 1955 and is now a Senior Member of the Institute. He joined the Headquarters Staff in 1978 as Manager of Committees and Special Projects and was appointed Acting Staff Director of Technical Activities in March, 1980.

Prior to joining the IEEE staff Dr. Engelson held a number of industrial positions in power and electronics, including eight years with RCA. During his academic career he was Professor and Associate Dean of the College of Engineering and Technology at the University of Nebraska, and Associate Professor of Electrical Engineering and Assistant Dean at the New Jersey Institute of Technology.

Dr. Engelson has lectured and published on a wide range of topics, including brain function, electrical engineering, computer simulation, and education.

Dr. Engelson received the B.S. degree magna cum laude from Polytechnic Institute of Brooklyn, the M.S. degree from Rutgers University, and the Ph.D. degree from Worcester Polytechnic Institute, all in electrical engineering.

He is a member of several professional and honor societies including Eta Kappa Nu, Tau Beta Pi, and Sigma Xi, and has been elected to The New York Academy of Sciences.



### WELCOME NEW IEEE UNITS

- The Montgomery Subsection of the Alabama Section was established December 4, 1980.
- The Industry Applications Chapter of the Washington Section was established December 4, 1980.
- The joint Circuits and Systems/Vehicular Technology/Communications Chapter of the Canton (Ohio) Section was expanded to include the Computer Society as of January 5, 1981.

Patricia D. Lech  
201-981-0060

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*Date wrong called this to attention of Corp Sec*



## TAB NEWS

### COMAR GETS GREEN LIGHT ON FILM PROGRAM

The IEEE Executive Committee approved a TAB request to authorize the solicitation of funds for an educational film on microwaves sponsored by COMAR (Committee on Man and Radiation). The program stems from a 1979 authorization to COMAR for the development of a program plan and creative outline for such a film. The film will present a balanced viewpoint with a technical advisory mechanism to be determined by TAB and USAB. Solicitation of the funds, approximately \$200,000, will not be directed to individual members of the IEEE, but to organizations in private industry and government interested in the topic. The public relations department, under the supervision of the General Manager will be responsible for coordinating the activity with COMAR.

### TWO NEW TAB ENTITIES APPROVED

TAB approved the establishment of a Society on the Social Implications of Technology (SSIT) and a Power Electronics Council. SSIT was further approved by the Executive Committee pending submission of a formal Constitution and clarifications of other questions within six months.

The new Council will cover the area of electronics concerned with the control and conversion of electric power, including device application, circuit design theory and the use of analytical tools.

### TAB BRIEFS

- A comprehensive training/orientation session for Society/Council officers was held at the February meeting which covered everything from budgets to Robert's Rules of Order.
- TAB will be reviewing a proposal to change its Division structure from seven to ten Divisions. Such a restructuring would align societies more closely to the related interests of the members within each Division, as well as provide three additional TAB seats on the Board.
- TAB has established a Periodicals Committee which will, among other functions, help mediate jurisdictional disputes among Societies/Councils related to publications.

### EDUCATIONAL ACTIVITIES

#### SPRING COURSE SCHEDULE SET

The following course schedule has been established for the coming months.

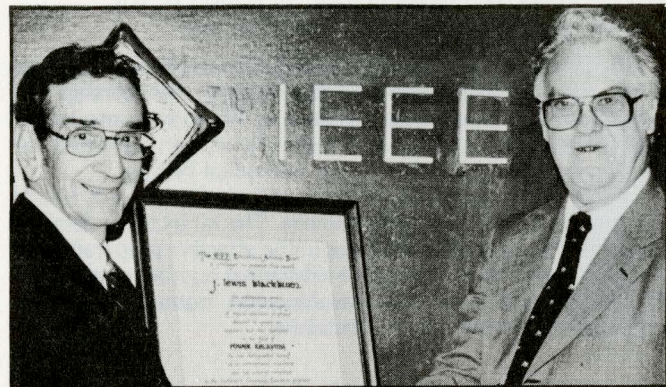
Mar 4-6	Power Systems Relaying	Portland OR
Mar 5-6	Transient Phenomena in Power Systems	Atlanta GA
Mar 11-12	Practical Applications of Symmetrical Components	Kansas City MO
Mar 23-24	Basic Project Management	Pittsburgh PA
Mar 24-25	Distribution & Grounding	Portland OR
Mar 26-27	Microporcessor Seminar	Ottawa Canada
Apr 1-2	Grounding & Lightning Protection	Tucson AZ
Apr 1-2	Power Systems Relaying	Cincinnati OH
Apr 3	Atlas	El Paso TX
Apr 3	Camac	Las Cruces NM
Apr 4	Atlas	Las Cruces NM
Apr 4	Camac	El Paso TX
Apr 29	Mini Microcomputer Applications	Cleveland OH
Apr 30-May 1	Microporcessor Seminar	Atlanta GA
May 8-9	Basic Project Management	Houston TX
Jun 22-23	Phase-Locked Loops	Cedar Rapids IA

For information, or to register for any of these courses, contact the IEEE Continuing Education Department, 445 Hoes Lane, Piscataway, NJ, 201-981-0060, extension 175, 177.

### EAB BRIEFS

- The Educational Activities Board is expected to add two more people in 1981 per Bylaw 306.1 which changes the total number of members from ten to twelve.
- Here's a chance to combine a Hawaii vacation with a short course on Alternative Energy Sources and the Region A Conference. Package tours depart on March 30. The course will be held March 31 and April 1 and the Region 6 Conference is set for April 1-3. Look for details on the tour in the March issue of the INSTITUTE or call.

John Wilhelm  
212-644-7871



**LONG TIME CONTRIBUTOR TO IEEE** Continuing Education programs, J. Lewis Blackburn (right), recently received an award of commendation from Rex Beers, Chairman of the CE Committee. The award specifically cites Dr. Blackburn's "outstanding service as educator and designer of topical education programs designed to update engineers and their associates in the field of power relays." It went on to cite his distinguished accomplishments as an educator in our programs.

### USAB NEWS

#### IEEE SPONSORS BRIEFING ON FEDERAL R&D BUDGET

The USAB/TAB Research and Development Committee is sponsoring a briefing on Federal research and development funding for fiscal 1982. Scheduled for March 23, in Washington the briefing will help the IEEE develop information on this topic and prepare testimony for upcoming congressional hearings.

The briefing will focus on those portions of the NASA Defense Department, Energy Department and NSF budgets of particular interest to the IEEE. Representatives of each major area will participate in the briefing. **FOR RESERVATIONS PLEASE CALL: Ann Beach 202-785-0017.**

Joseph D. Codispoli  
212-644-7855 or

Bill Herrold  
202-785-0017

#### USAB AWARD NOMINATIONS OPEN FOR 1981

Don't let the professional achievements of your colleagues go unrecognized. The USAB Awards and Recognition Committee is looking for your nominations for recipients of five awards in the area of professionalism distinguished public service, and professional activities as well as for certificates of appreciation. Please consult the insert in this issue of EE. Deadline for submission is May 15, 1981.



Contact: Gloria Aukland  
202-785-0017

# United States Activities Board

## Summary of USAB Awards for Professional Activities

Name of Award	Distinctive Features	Presentation
The IEEE United States Activities Board Award for Professionalism	To honor members of the engineering profession or allied arts and sciences in the United States for dedicated effort and successful accomplishments in advancing the social, economic, legal and ethical aims of IEEE professional activities, as defined by the IEEE Constitution	One annually; engraved plaque
The IEEE United States Activities Board Award for Distinguished Public Service (to the engineering profession)	To honor individuals outside the engineering profession for contributions to furthering the professional goals of IEEE by such means as (but not limited to) promulgating laws or regulations benefiting the profession; creating an internal industrial environment to foster professionalism; creating curricula and/or publications designed to enhance professionalism	One annually; engraved plaque
The IEEE United States Activities Board Citation of Honor	To honor an individual who has made outstanding contributions toward achieving recognition of national professional activities as defined by the IEEE Constitution	One to four per year; engraved plaque
The IEEE United States Activities Board Regional Professional Activities Award	To recognize those individuals selected by their respective Regions for their leadership efforts in advancing the professional aims of IEEE on a national, regional or local basis	One per Region per year; engraved plaque
The IEEE United States Activities Board Certificate of Appreciation	To recognize specific contributions, achievements and individual efforts in the development and implementation of professional activities at all Institute levels	Indefinite number per year; as warranted by suitable accomplishment

Deadlines for receipt of nominations for USAB Awards is May 15, 1981. Nomination forms and complete information are available from the Washington Office. To submit nominations or request information, write to:

USAB Awards and Recognition Committee  
The Institute of Electrical and Electronics Engineers, Inc.  
1111 - 19th Street, NW  
Washington, DC 20036  
(202) 785-0017





THE INSTITUTE OF  
ELECTRICAL AND  
ELECTRONICS  
ENGINEERS, INC.

RECOMMENDATION FOR USAB AWARD

DATE \_\_\_\_\_

NOMINEE:

Name \_\_\_\_\_

\*Address \_\_\_\_\_

\*Phone \_\_\_\_\_

NOMINATOR:

Name \_\_\_\_\_

\*Address \_\_\_\_\_

\*Phone \_\_\_\_\_

\*Please give preferred mailing addresses and daytime telephone numbers.

AWARD RECOMMENDED (SEE REVERSE SIDE):

- Professionalism     Distinguished Public Service     Citation of Honor  
 Regional Professional Activities     Certificate of Appreciation

CONTRIBUTIONS RELATED TO AWARD (1 OR 2 PARAGRAPHS; CONTINUE ON SEPARATE SHEET, IF NECESSARY):

PLEASE RETURN FORM TO: IEEE, 1111 Nineteenth St., N.W., Suite 608,  
Washington, D.C. 20036. Att: USAB Awards

ACTION BY USAB AWARDS AND RECOGNITION COMMITTEE: Approved  Yes  No  
 New category of award     Resubmit with more justification

BY \_\_\_\_\_ DATE \_\_\_\_\_



Contact: Patricia Penick  
(212) 644-7550

# Publications

## People Who Want to Dispose of IEEE Publications

Since IEEE Headquarters is so often asked for advice on disposing of old AIEE/IRE/IEEE publications, the following is an attempt to bring together in one place the information and suggestions we think may be helpful.

IN THE PAST, many of our publications had a high market value and could fairly easily be sold to back copy book stores. Libraries and schools were eager for donations.

NOW, HOWEVER, the situation has changed radically and the general demand is very small. The main reason for this change is that, for some time, IEEE has made available all of its technical periodicals (including those from AIEE and IRE) on microfilm. Another apparent reason is that so many members with extensive publication collections have already saturated the market by selling or donating them.

ON THE NEGATIVE SIDE, and in answer to the questions most frequently asked: 1) Neither IEEE Headquarters nor the Engineering Societies Library is in a position to accept donations of back publications; 2) It isn't feasible for Headquarters to provide a clearing house service; and 3) Because of the extremely difficult-to-know and shifting nature of the market value of back issues and the number of variables involved (completeness of a collection, physical condition, etc.), IEEE cannot assess or verify the value of a collection.

ON THE POSITIVE SIDE, before committing a good collection to the shredder, we certainly recommend exploring the possibility of selling or donating publications locally. A few phone calls or letters to back copy book stores in your area should reveal what, if any, interest there is locally and whether there is a willingness to offer a quotation. Similar inquiries to libraries, schools, company libraries, etc. may elicit information on where a collection could be donated. (A brief list is available on request from my office of book stores and organizations in the New York City area which are sometimes interested in IEEE publications.)

AS A SERVICE to members in your area, you might consider making such an information-gathering project an IEEE Chapter or Section activity.

IDEALLY, it should be possible to donate publications to a worthy recipient and take a suitable tax deduction. IEEE can't, of course, give tax advice, and we do recommend consulting with your tax attorney or accountant. Usually, the best approach to assigning an appropriate value to publications is to get a firm quotation in writing from a reputable commercial book dealer or to ask the organization receiving the donation to state formally the amount the collection is worth to them.

FEEDBACK IS WELCOME from anyone who knows of any organization(s) which would consistently accept donations or which have at least a reasonable interest in buying back copies. (Unfortunately, several organizations we used to recommend -- one, for example which supplied publications to developing countries -- no longer function.) Any such will be added to our list.





# Student Activities News

## IEEE STUDENT BRANCHES AWARDED GRANTS

The Vincent Bendix Award Competition for the 1980-81 academic year has been completed. The projects funded range in topic from technical research on the state-of-the-art technology to community service programs.

The IEEE Student Branches funded for 1980-81 are: Trenton State College; Drexel University; Tulane University; Iowa State University; Rose-Hulman Institute of Technology; South Dakota School of Mines and Technology; Washington University; University of Alberta; Technion-ITT, Israel; Regional Engineering College, Warangal, India; and Regional Engineering College, Tiruchirapalli, India.

## SUBSCRIPTION DISCOUNTS AVAILABLE

All IEEE Student Branches are eligible to receive an annual subscription to a full set of Society Transactions, Journals and Magazines as well as the Proceedings of IEEE and Spectrum at the discounted rate of \$100.

To qualify for the discounted subscription, the Student Branch Counselor and Chairperson must ensure that the publications are displayed and accessible to Student members in a Branch Library, Lounge, or other facility that may be used for this purpose. The subscriptions are for the use of the Student Branch and are not to be substituted for any subscriptions purchased by the college or university library.

Contact IEEE Student Services for further information.

## MONIES AVAILABLE TO STUDENT BRANCHES

All IEEE Student Branches are entitled to an Annual Allotment of \$25 or \$50 if they submit an Annual Plan of Activities to Student Services.

Student Branches with a membership of up to 50 members according to the December 31, 1980 membership statistics, are entitled to \$25. Branches with over 50 members according to the statistics, are entitled to \$50. All Student Branches who have already submitted their Annual Plan of Activities will be receiving their allotments in March. Those who have not submitted a plan are urged to do so by March 30 in order to remain eligible for the monies.

For further information, contact IEEE Student Services, 445 Hoes Lane, Piscataway, NJ 08854; or call (201) 981-0060.

## NEW CHAIRMAN TO THE STUDENT ACTIVITIES COMMITTEE

Dr. Charles K. Alexander, Electrical Engineering Department Head at Tennessee Technological University, has been appointed Chairman of the Student Activities Committee of the Regional Activities Board for 1981. Formerly Region 2 Student Activities Chairman and representative to the Student Activities Committee, Dr. Alexander assumes the leadership duties carried out in 1979-80 by Eric M. Aupperle.

Dr. Alexander will chair the first meeting of the Student Activities Committee in 1981 on March 6-7 in Atlanta, Georgia.

Roni A. Nichols, Student Services Coordinator, left the IEEE Staff in January in order to return to student life, pursuing a graduate degree.

Until a new Coordinator is in place, please contact Laura Snyder or Mark Lucas for assistance from Student Services.



#### COMPUTER SOCIETY SCHOLARSHIP AVAILABLE

Four \$3000 scholarships are available for the 1981-82 academic year to eligible undergraduate or graduate Computer Society student members who participate in Student Branch Chapter activities. These scholarships are one of the several ways that the Computer Society supports the growth and development of Student Branch Chapters.

The purpose of this program is to recognize and reward students who are active in their IEEE Computer Society Student Branch Chapter and show promise in their academic and professional efforts.

Graduate students, Juniors, and Seniors in electrical engineering, computer engineering, computer science, or a well-defined computer related field of engineering who are active members of the Computer Society Student Branch Chapter at their Institution are eligible.

Further details and application forms may be obtained by calling or writing to: Chairman, Student Activities Committee, IEEE Computer Society, P.O. Box 639, Silver Springs, MD 20901; (301) 589-3386.

Deadline for applications is March 15, 1981.

#### RTCA OFFERS \$1,000 HONORARIUM

A \$1000 honorarium is available to students from the Radio Technical Commission for Aeronautics. Each year the RTCA confers the William E. Jackson Award on an Outstanding Student. It consists of a personalized plaque and a \$1000 honorarium. The award is a memorial to William E. Jackson, an outstanding pioneer in the development and implementation of the present Airways, Air Traffic Control, and Aviation Communications Systems.

Any undergraduate or graduate student studying for a degree in the field of aviation electronics or telecommunications systems is eligible. There are no restrictions as to race, creed, color, religious affiliation, national origin or citizenship.

RTCA must receive all entries no later than June 30. Submissions are to be sent to: William E. Jackson Award Committee, c/o RTCA, Suite 655, 1717 H Street, N.W., Washington, DC 20006.

For more specific details, please contact the Committee at the above address.

#### CONTEST/SEARCH TO AID THE HANDICAPPED OFFERS \$10,000 PRIZE

The Johns Hopkins University, with grant support from the National Science Foundation and Radio Shack, is conducting a national search/contest for ideas and inventions to aid the physically or mentally handicapped through personal computing. The objective is to focus the power of computing on the urgent needs of the handicapped and to engage individual innovation to meet those needs.

A \$10,000 grand prize is offered for the best submission. In addition, a hundred other prizes, including several personal computing systems, will be presented to winning participants from categories for computer professionals, amateurs, and students. Entries can be prototype devices, computer programs, or system designs. Deadline for submission of entries is June 30, 1981.

For further information, write to Personal Computing for the Handicapped, The Johns Hopkins University, P.O. Box 670, Laurel, MD 20810.



# Membership Development

Contact: Roseann Schulz  
(201) 981-0060  
Ext. 132

#### MEMBERSHIP GROWTH SETS ALL-TIME RECORDS

*YEAR END 1980 INSTITUTE MEMBERSHIP, 213,812 - A record growth of 6.01 percent and an increase of 12,189 members over last year. Student membership is up to 34,782 and Societies memberships total 235,839.*

*Regions 1 and 6 have each attained over 40,000 members and the Computer Society reached a record high of 52,427 members.*

*MDC WISHES TO THANK ALL THE VOLUNTEERS WHO CONTRIBUTED TO THIS OUTSTANDING GROWTH IN 1980.*

#### CAL STOUTZ CONTINUES

*We are pleased to report that Cal will continue as MDC Chairman. He plans the first 1981 MDC meeting on Saturday, February 28th in Atlanta, Georgia. This first meeting is essential for successful MD efforts. 1981 goals will be set, activities planned and new programs developed. If you are in the area you are welcome to attend. For complete details, please contact Bill Hunter, MDC Coordinator.*

#### NEW SENIOR MEMBER BROCHURE

*A Senior Member brochure is being produced for the first time and should be available in early spring. It is an attractive brochure that can be displayed at meetings and conferences to encourage qualified candidates to apply for elevation to Senior Member grade. The Senior Member brochure will include all pertinent information regarding Senior Membership and the application form necessary for elevation to Senior Member grade. It will replace the Senior Member Elevation Kit (B5B).*

*A "Senior" in the profession should be a "Senior" in IEEE.*

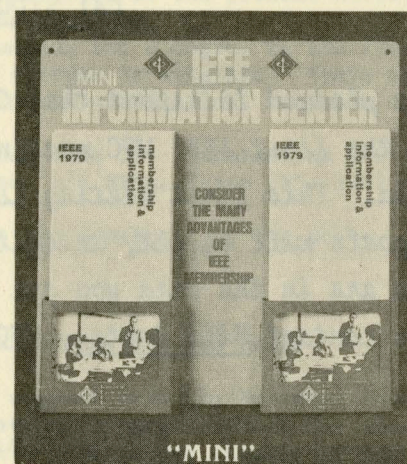
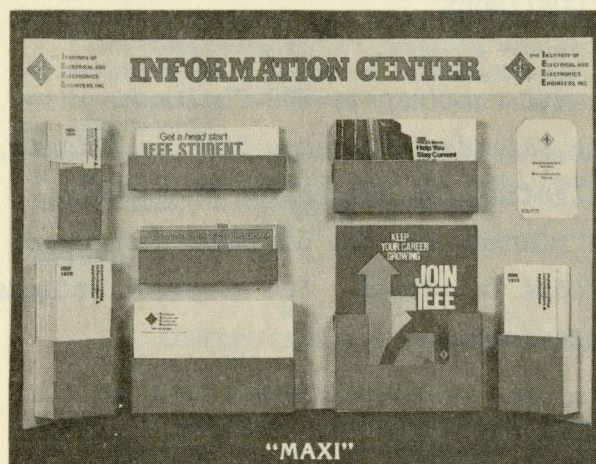


MEMBERSHIP PROMOTIONAL MATERIAL

Order forms and samples of 1981 promotional materials have been sent to MD officers. These Membership Development materials are available at no charge. Order NOW to have the "tools" for implementing MD programs. For MD action contact Bill Hunter at - (201) 981-0060 Ext 189

INFORMATION CENTERS ARE ALSO AVAILABLE

IEEE INFORMATION CENTERS provide an attractive and organized method of displaying and dispensing IEEE promotional and informational literature and materials. Three different models are designed to be used for local meetings, at conferences and in-plant, to distribute IEEE membership information to non-members.



MODEL	DIMENSIONS	PRICE*	DESCRIPTION — SUGGESTED USES
MAXI	24"x36"	\$12.00	Eight pocket version. Use at meetings and conferences.
MINI	12"x12"	\$4.00	Two pocket version. Tabletop or wall mounting. Great for Section meetings or in-plant display. Includes 10 F69 Membership Information brochures.
MICRO	6"x12"	\$3.00	One pocket version of MINI, suggested for in-plant wall mounted use. Includes 5 F69 Membership Information brochures.



# Fellow Committee

## IEEE FELLOWS ELECTED JANUARY 1, 1981

The Geographic listing is by section and subsection. Society membership is indicated following Fellow citation (please see Society Code Designation below).

- Atlanta**  
**Philip R. Geffe** For contributions to computer-aided filter design. **CAS**
- James C. Toler** For contributions to electromagnetic compatibility testing which led to the development of reliable cardiac pacemakers. **EMB, EMC**
- Australian**  
**Louis W. Davies** For leadership of industrial and university solid-state electronics research. **PE**
- Berkshire**  
**Luciano E. Zaffanella** For contributions to high-voltage transmission research and development. **PE**
- Binghamton**  
**Richard E. Blahut** For the development of passive surveillance systems and for contributions to information theory and error control codes. **ASSP, IT, COMM**
- Boston**  
**John J. Kovaly** For contributions to synthetic aperture radar. **AP**
- Dennis J. Picard** For leadership in the development and implementation of large phased array radars. **AES**
- Canadian Atlantic**  
**Glendon C. McCormick** For contributions to the understanding of electromagnetic wave propagation and scattering in precipitating atmospheres. **AP**
- Canton**  
**James D.M. Phelps** For development of surge arrester applications and industry standards for EHV systems. **PE**
- Central Illinois**  
**Shung-Wu Lee** For contributions to phased array antennas, geometrical theory of diffraction, and engineering education. **AP**
- Chao-Han Liu** For contributions to wave propagation in the ionosphere and to engineering education. **AP, NPS**
- Central Indiana**  
**Pen-Min Lin** For contributions to computer-aided analysis and applications of graph theory to circuits and systems. **CAS**
- Central Virginia**  
**Eugene S. McVey** For contributions to control theory and its application to switch power systems and image processing. **IECI, COMP**
- Chicago**  
**Peter J. Dallos** For contributions to the understanding of the peripheral auditory system. **EMB**
- Fox Valley Subsection**  
**Richard J. Jaeger, Jr.** For contributions to the development and deployment of electronic operator assistance telephone switching systems. **COMP, COMM**
- Wing N. Toy** For contributions to the conception, design, and development of fault-tolerant computers for electronic telephone switching systems and telecommunication systems. **COMP**
- Cleveland**  
**Irving Lefkowitz** For contributions to computer control of industrial process systems. **CS, SMC**
- Columbus**  
**Leon Peters, Jr.** For contribution to the theory of microwave radiation and scattering. **AP, MTT**

### SOCIETY CODE DESIGNATIONS

AES	Aerospace and Electronic Systems	GRS	Geoscience and Remote Sensing
ASSP	Acoustic, Speech, and Signal Processing	IA	Industry Applications
AP	Antennas and Propagation	IECI	Industrial Electronics and Control Instrumentation
BCCE	Broadcast, Cable, and Consumer Electronics	IM	Instrumentation and Measurement
CAS	Circuits and Systems	IT	Information Theory
CHMT	Components, Hybrids, and Manufacturing Technology	Mag	Magnetics
COMM	Communications	MTT	Microwave Theory and Techniques
COMP	Computer	NPS	Nuclear and Plasma Sciences
CS	Control Systems	PC	Professional Communications
ED	Electron Devices	PE	Power Engineering
Ed	Education	QEA	Quantum Electronics and Applications
EI	Electrical Insulation	R	Reliability
EM	Engineering Management	SU	Sonics and Ultrasonics
EMB	Engineering in Medicine and Biology	VT	Vehicular Technology
EMC	Electromagnetic Compatibility		



Connecticut  
Fairfield County Subsection  
**Jesse R. Lien** For leadership in electronics research and engineering. **AES**

Dayton  
**Louis J. Urban** For leadership in avionics research and development and contributions to guidance and control for missiles and aircraft. **AES, COMP, COMM, EMC**

Denver  
**Leonard Lewin** For contributions to the theory of waveguides, antennas, and microstrip transmission lines. **MTT**

East Tennessee  
**J. Reece Roth** For developments in superconducting magnet technology and discoveries in plasma instabilities and turbulence. **NPS**

**McBeth N. Sprouse** For leadership in standardizing design processes for power generation stations. **PE**

France  
**Jacky Weill** For contributions as a research manager and leader in the field of electronic control and protection systems for nuclear reactors. **NPS, IM, IECE, COMP, CS**

Hong Kong  
**Sing-yui King** For contributions to studies of electric fields and thermal environments near bundled conductors in power systems and to electrical engineering education. **COMP, PE, IA**

Houston  
**C. Sidney Burrus** For contributions to signal processing and electrical engineering educations. **ASSP, CAS, COMP, Ed**

Huntsville  
**Charles R. Vick** For contributions to software engineering theory and applications. **COMP**

Long Island  
**Arthur J. Bernstein** For contributions to the theory and development of software for large-scale dispersed interactive operating systems. **COMP**

**Donald Christiansen** For contributions to professional communication in electrical and electronics technology. **R, ED, COMP, EMB, PC, SMC**

Metropolitan Los Angeles  
**Michael Bass** For contributions to quantum electronics related to laser material interactions and optical properties of matter. **QEA**

**Elsa M. Garmire** For contributions in nonlinear and guided wave optics. **QEA**

Michigan  
**Ruey-wen Liu** For contributions to the analysis of nonlinear circuits and systems. **CAS, COMP, CS**

Middle and South Italy  
**Luigi Paris** For contributions to the design of electric transmission systems and for leadership in their research. **PE**

Mid-Hudson  
**William A. Pliskin** For creative contributions to the development of thin-film insulators and glasses used in microelectronic devices. **EI**

Mohawk Valley  
**John N. Entzminger, Jr.** For technical leadership in the development of weapons systems for the detection, location, and strike of ground targets. **AES**

Saint Lawrence International Subsection  
**Charles B. Rawlins** For contributions to the field of transmission line conductor dynamics. **AES**

Montreal  
**Richard A. Malewski** For contributions to high-voltage measuring techniques and to the study of the transient skin effect in massive conductors. **PE**

New Jersey Coast  
**Arthur D. Ballato** For contributions to the theory of piezoelectric crystals and frequency control. **IM, MTT, SU**

**Ira Jacobs** For contributions to and leadership in the development of lightwave communications systems. **IT, COMM**

**Douglas O. Reudink** For contributions to satellite communications and microwave mobile radio systems. **PE**

New York  
**Alan J. McElroy** For contributions to the field of failure history recording and to the insulation coordination of power systems. **PE**

Westchester Subsection  
**Robert K. Brayton** For pioneering work in the theory of nonlinear networks, stability theory, and sparse matrix techniques. **CAS**

**James W. Cooley** For development of the fast Fourier transform. **ASSP**

**Harlow Freitag** For contributions to the development of design automation methodologies for large-scale integrated circuitry. **COMP**

**Donald T. Tang** For contributions to the design and analysis of computer communication networks. **COMP, COMM**

Northern Virginia  
**William G. Duff** For the development of design and analysis technology for achieving electromagnetic compatibility at the system level. **EMC**

**Robert E. Kahn** For original work in packet switching mobile radio telecommunications technology. **ASSP, IT, COMP, COMM**

North Jersey  
**Ray R. Bast** For the development of methods for extending the thermal operating capabilities of electrical power apparatus. **PE**

**Arpad A. Bergh** For leadership in the advancement of optoelectronics and the technology of light-emitting diodes. **PE**

**Harry J. Boll** For the development of novel semiconductor devices and leadership in large-scale integrated circuit design. **ED**

**John H. Bruning** For contributions to optical measurement technology leading to advances in semiconductor microlithography. **ED**

**Alfred Y. Cho** For pioneering work in the development of molecular beam epitaxy and its applications to microwave and optoelectronic devices. **AES**

**Stephen A. Mallard** For the development and application of simulation methods for reliability evaluations of complex electric power systems. **PE**

**Richard G. Smith** For contributions to the development of Nd:YAG solid-state lasers and nonlinear optical devices. **ED, QEA**

Oakland-East Bay  
**Paul R. Gray** For contributions to development of integrated circuits. **ED**

**Robert G. Meyer** For contributions to the analysis and design of high-frequency amplifiers. **BCCE, CAS, ED, COMM**

**William G. Oldham** For contributions to electron devices and large-scale integration technologies. **ED**

**Clifford C. Young, Jr.** For the development and application of digital computer techniques for the dynamic analysis of power systems. **PE**

Oak Ridge  
**Igor Alexeff** For innovation in plasma engineering and controlled thermonuclear fusion research. **NPS, Ed**

Orange County  
**James W. Duncan** For contributions to and technical leadership in the development of communications satellite antennas. **AP, MTT**

**Walter R. Fried** For contributions to and technical leadership in the development of Doppler radar and relative navigation systems. **AES**

**Jack Sklansky** For contributions to digital pattern classification and medical applications. **ASSP, IT, COMP, EMB, SMC**

Orlando  
**George F. McClure** For contributions to mobile telephone communications systems engineering and the creation of new and more effective methods of spectrum utilization. **ASSP, CAS, VT, IM, AES, EM, COMP, COMM, PC, EMC, SMC**

Ottawa  
**Cecil C. Costain** For leadership in the development of primary frequency standards and two-way time transfer techniques via geostationary satellites. **IM**

Philadelphia  
**Raymond S. Berkowitz** For contributions to advanced data processing techniques in modern radar and engineering education. **AES, IT**

**Nabil H. Farhat** For work in advancement and understanding of microwave holographs and associated contributions to electrical engineering education. **PE**

**Robert Mayer** For contributions to instrumentation and control systems in the petrochemical process industry. **IECI, EM, IA**

**Will McAdam** For the development of reliable instrumentation for the measurement and control of industrial processes in high-noise environments. **IECI**

**Cornelius N. Weygandt** For contributions to differential analyzer solutions of rotating machinery and power system problems. **AES**

Phoenix  
**Paul M. Anderson** For contributions to power system engineering education and research in system planning and operation. **PE**

**Charles E. Backus** For contributions to photovoltaics and education in advanced energy conversion. **ED, PE**

**William G. Howard, Jr.** For contributions to the advancement of semiconductor circuits and devices, especially analog and digital LSI technology. **CAS, ED**

Pittsburgh  
**M. Stanley Baldwin** For the development of analysis techniques for power system performance during system disturbances. **PE**

**Nirmal K. Bose** For contributions to multidimensional systems theory and circuits and systems educations. **CAS**

**C. Ray Marcum** For technical and management contributions to the fields of large rotating machines and static power devices. **EM, PE, IA**

**Zvi H. Meiksin** For contributions to piezoresistivity of thin films and leadership in electronics education. **ED, CHMT**

**Donald L. Nickel** For leadership in planning, design, and equipment applications to distribution systems. **PE, IA**

**Daniel P. Siewiorek** For contributions to the design of modular computer systems. **COMP**

Portland  
**Richard E. Dietrich** For contributions to power system protection and the development of shielding and grounding standards for EHV control circuits. **PE**

**Edward H. Gehrig** For contributions to the planning and design of high-voltage ac and dc transmission systems. **PE**

Princeton  
**Kenneth Steiglitz** For contributions to the theory and applications of digital signal processing. **ASSP**

Providence  
**Leland B. Jackson** For contributions to the finite word length design and hardware implementation of digital filters. **ASSP, CAS**

Rio de Janeiro  
**Carlos A. Peixoto** For leadership in the planning and design of electrical transmission systems for Brazil and for applications of analytic approaches in equipment specification. **PE**

Saint Louis  
**Donald L. Snyder** For contributions to estimation theory and applications to communications and medicine. **IT, COMM, CS**

San Diego  
**Leonard B. Gardner, II** For pioneering concepts and leadership in the development of computerized control systems used in process simulators and in automated production lines. **IECI, EM, COMP, CS**

**Jay H. Harris** For pioneering contributions to the understanding and application of wave effects in integrated and thin-film optical devices. **NPS, ED, MTT, QEA**



**Alvin W. Trivelpiece** For contributions to the understanding of wave-plasma interactions and to plasma education. **NPS, QEA**

San Fernando Valley

**Chand R. Viswanathan** For leadership in engineering education and contributions to the theory of metal-oxide-semiconductor devices. **ED**

San Gabriel Valley

**Edward C. Posner** For contributions to and leadership in the development of deep space communication systems. **IT, COMP, COMM**

Santa Barbara

**John D. Markel** For contributions to the theory and applications of linear prediction of speech. **ASSP, CAS, IT, COMP, EMB, COMM, CS, GRS**

Santa Clara Valley

**Stephen F. Adam** For contributions to and technical leadership in the theory and application of automatic network analyzers. **ASSP, IM, MTT, QEA**

**George V. Jacoby** For contributions to coding and signal processing for digital magnetic recording. **IT, Mag**

**James M. Kasson** For contributions to and leadership in the design of digital switching systems for customer premises business communications systems. **ASSP, EM, COMP, COMM**

**John Reeve** For contributions to high-voltage direct current transmission systems. **PE**

**Donald R. Scifres** For contributions to the science and technology of diode lasers. **AEA**

**Dragoslave D. Siljak** For contributions to the theory of nonlinear control and large-scale systems. **CS**

Santa Monica Bay

**Arthur N. Chester** For contributions and technical leadership in gas laser technology. **QEA**

**Myron Kayton** For contributions to the design of avionic systems for spacecraft and aircraft. **AES, COMP, PE**

**Jim K. Omura** For contributions to information and communications theory as applied to communications systems design. **IT, COMM**

Sao Paulo

**Carlos A.J. Lohmann** For contributions to management techniques in power distribution for electrical utilities in Latin America. **EM, COMP, PE, IA**

Schenectady

**Walter C. Huening, Jr.** For contributions to the standardization of short-circuit current calculation practices in the industrial power field. **PE, IA**

**Roland W. Schmitt** For leadership in directing research and development in electronics, energy, materials, and chemistry. **EM, PE**

**H. Austin Spang, III** For contributions to the development and application of digital control systems. **CS**

Southeastern Michigan

**Frank A. Denbrock** For contributions to transmission line and substation technology and the development of safety standards. **EM, EMB, PE**

**Allen H. Meitzler** For developments in ferroelectric and piezoelectric devices and materials. **ED, SU**

**Martin C. Steele** For contributions to solid-state electronics, particularly plasma effects in solids. **ED**

Southern Alberta

**Leonard T. Bruton** For contributions to the theory and design of active circuits. **ASSP, CAS**

Switzerland

**Alexander Goldstein** For contributions in the design, construction, and testing of EHV transformers. **PE**

**Jacques-J. Neirynek** For contributions to circuit theory, especially in the area of filter design. **CAS**

Tokyo

**Koosuke Harada** For contributions to the development of combined magnetic and semiconductor devices for power control. **R, IM, AES, IECI, EMB, Mag, IA**

**Tatsuya Harada** For contributions to high-voltage testing techniques and to the understanding of lightning and switching impulse flashover phenomena. **PE**

**Hisashi Kaneko** For contributions to and leadership in digital communication systems. **COMM**

**Yoshihiro Konishi** For contributions to microwave component technology of particular significance to satellite broadcasting. **BCCE, MTT**

**Nobuaki Kumagai** For contributions to the study of wave propagation in electromagnetics, optics, and acoustics. **MTT, QEA**

**Jin-ichi Nagumo** For contributions to neuron modeling, medical electronics, human engineering, and nonlinear systems analyses. **SMC**

**Hiroshi Sakai** For contributions to vehicular communications in a critical high-speed environment. **CAS, VT, IM, COMM, PE, IA**

**Yasuji Sekine** For contributions to the methodology of power systems analysis, planning, control, and operation. **PE**

**Noboru Takagi** For leadership in space technology and related advances in reliability engineering. **R, AES, ED, CHMT, QEA**

**Susumu Yoshida** For invention of the Trinitron tube and the development of CRT production techniques.

Tulsa

**John L. Shanks** For contributions to the field of digital filter design and stability analysis. **ASSP, GRS**

United Kingdom and Republic of Ireland

**David Q. Mayne** For contributions to optimal control and dynamic programming. **CS**

**Peter N. Robson** For contribution to the understanding of microwave solid-state devices. **ED, MTT, Ed, QEA**

**Donald J. Skipper** For contributions to EHV power cable technology. **PE**

Washington

**Edward E. Conrad** For technical leadership in the understanding and characterization of transient nuclear radiation effects on insulators. **NPS**

**Robert V. Garver** For contributions to the development and understanding of the limitations of broad-band solid-state microwave switches. **NPS, EM, ED, MTT**

**Norris C. Hekimian** For contributions to circuit design in the field of telecommunications test instrumentation. **CAS, IM, AES, COMM, CHMT**

**John C. Munson** For leadership in acoustics research and development, especially in the area of sonar signal processing. **ASSP**

**Judith M.S. Prewitt** For contribution to applying image processing techniques to automated medical diagnostics. **IT, COMP, EMB, SMC**

**Edwin B. Stear** For contributions to linear and nonlinear filter theory and their application to biological systems. **IT, COMP, CS, Ed, SMC**



SERVICE CONTRACTS GUIDE PUBLISHED BY USAB

**Your Rights As A Service Contract Employee: A Guide for IEEE Members** is a new USAB publication which defines wage busting and wage erosion, and tells in detail what action may be taken under current Federal laws and regulations to protect the rights of professionals working on Service Contracts.

PAC Chairmen will receive a copy for reference as part of their **PAC Source Book**. Additional copies may be purchased from the IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. Ask for IEEE Catalog No. UH0146-1. Price: \$3 non-members; \$2.25 members.

#### "SUPER SATURDAY" SEMINARS HELP SET ENGINEERING STUDENTS ON GOOD PROFESSIONAL TRACK

The *Super Saturday Seminar* was the title of a day-long IEEE program on professional awareness for engineering students held at four universities last fall in Region I: Rensseler Polytech; the University of New Hampshire; Rochester Institute of Technology; and New Jersey Institute of Technology.

Professional topics such as interviewing, career planning, ethics, pensions, age discrimination, patents, the engineer's place in society, and the role of the IEEE were presented. This information was enthusiastically received by several hundred students at each location.

This program was a joint effort of the Region I, Area A Professional Activities Committee, and the Student Activities Committee. Plans are being made to expand this student Professional Awareness Seminar program in 1981.

#### "TECHNICAL VITALITY AND AMERICA'S PROSPERITY" IS THEME OF THIS YEAR'S PUBLIC AFFAIRS FORUM

The 1981 Engineers Public Affairs Forum, sponsored in part by the IEEE, will investigate public policy and the innovation process, and examine impediments to the development of new technologies and the relationship of industry, government and academia as each contributes to the vitality of American technology.

The Forum is scheduled for April 13-15 at the Hyatt Regency Hotel in Washington, D.C. Guest speakers will cover such topics as the legislative agenda for technology issues, the American innovation process, and the Japanese industrial system. Other sessions will focus on energy problems, aerospace, transportation, the environment, and industry in the year 2000. Experts will face technical journalists in a special session entitled "Face the Profession." All session leaders will not only be technical experts, but also expert in explaining the public policy aspects of the issues and addressing the government point of view. The major program on the afternoon of the 14th will be conducted by USAB. The subject is "What are the economic and institutional factors in the practical application of technology?"

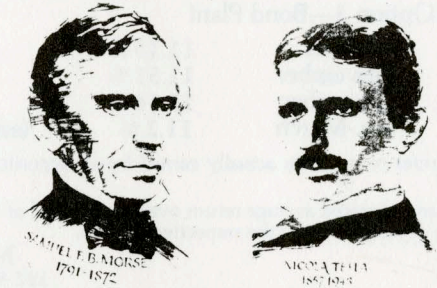
Capitol Hill visits and attendance at a Congressional hearing are also scheduled. For further information and to register, contact NSPE at 2029 K St., N.W., Washington, D.C. 20006, (202) 463-2300.

#### REPRODUCTIONS OF WASHINGTON OFFICE MURAL HONORING 12 NOW AVAILABLE.

If you are looking for an appropriate award for a member's special contributions or would like a work of art for yourself reflecting your profession, consider an attractive, 2-color 11" x 14" reproduction of the wall mural of our Washington office which honors twelve historic figures of electrotechnology.

Reproduced on quality paper, the reproduction makes an attractive gift, especially when framed. Featured are: Michael Faraday, Samuel F. B. Morse, Charles Babbage, Lord Kelvin, James Clerk Maxwell, Thomas Alva Edison, Alexander Graham Bell, Nikola Tesla, Charles Proteus Steinmetz, Lee De Forest, Guglielmo Marconi, and John von Neumann. Certainly, the work of these luminaries is the heritage of today's electrical and electronic engineers.

The reproduction may be ordered from the IEEE Service Center in Piscataway at a cost of \$3.50 for nonmembers and \$2.50 for members.



#### CONGRESSIONAL FELLOW GETS CONGRESSIONAL RECORD CITATION

Senator Strom Thurmond (R-S.C.), Chairman of the Senate Armed Service Committee, in December cited the importance of the Science and Engineering Fellows program which has allowed over 140 scientists and engineers to participate in the Congressional process since 1973. As published in the Congressional Record of December 3, 1980, he issued an extensive citation of IEEE Congressional Fellow Thomas L. Fagan who, as the Senator noted, worked for the Subcommittee on General Procurement, and also assisted the Senator in such areas as technology transfer, the U.N. Moon Treaty, civil defense and other defense related matters.

He stated that "Mr. Fagan has performed a very valuable service for the U.S. Senate and for our country. I extend to him my appreciation for the service to his country and urge other members to make use of this worthwhile Congressional Science and Engineering Fellows Program."

#### EMPLOYMENT INFORMATION SERVICE APPROVED AS A NEW MEMBER BENEFIT

The Executive Committee, following a test period and endorsement of the United States Activities Board, has approved Professional Abstract Registries (PAR), an employment information system for technical professionals, as a new member benefit.

Free to IEEE members, PAR provides a mechanism for members who choose to register for contact with potential new employers. Completed resume forms are matched against statements entered by employers who subscribe to the service. On request, confidentiality of the individuals entering the system is assured.

The PAR program will be promoted through ads in SPECTRUM and other IEEE publications with complete information being made available. PAR's toll free number is 1-800-422-2616. In New York call: 914-762-2522.

Gloria Aukland  
202-785-0017



## IEEE INVESTMENT OPTIONS

The recent performance of the cash management investment options available to IEEE's organizational units is reported below. All units are urged to examine their available cash for optimum returns.

### Investment Options 1—Short-Term Bank Deposits\*:

October	11.10 %	
November	13.15 %	
December	14.17 %	
Jan.-March	14.5 %	(estimated)

### Investment Option 2—Long-term Bank Deposits (over 6 months)†:

October	13.99 %	
November	15.88 %	
December	15.86 %	
Jan.-March	15.9 %	(estimated)

### Investment Option 3—Bond Plant

October	11.15 %	
November	11.51 %	
December	11.14 %	
Jan.-March	11.2 %	(estimated)

\* Percentages refer to amounts actually earned by all depositors in that month.

† Percentages are estimated average return over total period of the investment on funds deposited during the respective months.

Mike Sosa  
201-981-0060

## EE ETC.

• Two new IEEE Press Books have been released: **Protective Relaying for Power Systems**, 592 pages, \$22.95/\$34.45 member prices for paperbound/clothcover; **Optical Fiber Technology II** presents new developments since 1976 publication, 352 pages, \$14.95/\$22.45 member prices for paperbound/clothcover. Available through the Service Center.

• If you're interested in lending your technical skills on a volunteer basis to people in the developing world, Volunteers in Technical Assistance (VITA) is one way. Established in 1960, VITA, has 4,000 volunteer experts in virtually every technical discipline who answer requests for information, evaluate technical manuals and documents, and serve on advisory panels. Emphasis is on village level technologies. Contact: Helen Picard, VITA, 3706 Rhode Island Avenue, Mr. Rainier, Maryland 20802, 301-277-700.

• The Executive Committee approved an underwriting of \$20,000 to the Center for the History of Electrical Engineering for the creation of a Faraday-Maxwell 150th Anniversary Exhibit. Under the supervision of Center Director, Dr. Robert Friedel, the exhibit would debut at ELECTRO/81 in New York and be made available to science and technology museums and other interested parties through the anniversary period.

• A further note on the History Center...an informative, artistically illustrated pamphlet on the Center is now being distributed. If you would like copies, please contact Dr. Friedel at New York headquarters—212-644-7501.

• The Public Relations Committee is putting out a call for anyone who is currently responsible for publicity or public relations in your entity to please identify yourself to Joe Codispoti, Staff Director. We will shortly be issuing a public relations guide and will be looking to establish public relations training sessions during the year.

• If you want to dispose of back copies of IEEE publications and be eligible for a tax deductible donation, Publishing Services suggest you refer to the insert in this issue of EE answering your questions.

• The Copyright Office has been holding hearings in various parts of the country to help **them** understand the problems associated with the implementation of the current copyright laws. At the January hearings in New York, IEEE Publishing Services Director Woody Gannet and Manager of Administrative Services for Publishing, Pat Penick testified. Mr. Gannet spoke for the IEEE; Ms. Penick on behalf of the American Association of Publishers panel on copyright administration. Transcripts of their testimony are available from Ms. Penick at headquarters (212-644-7550).

Joseph D. Codispoti  
212-644-7866

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