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Newsletter

IEEE Professional Communication Society

Keynoter for PCC84

Dr. John D. Ryder has accepted our invitation to be the keynote speaker at PCC84 in Atlantic City. He will give his talk at the awards luncheon on October 11. Dr. Ryder is a Fellow of the IEEE and chairman of the task force for the 1984 centennial program.

He has held academic positions at Iowa State University, the University of Illinois, Michigan State University, and the University of Florida. During 1966-68 he served as Vice-Chief of the U.S.A.I.D. Higher Education Project in Brazil. He has written seven textbooks on electronics and circuit theory, published numerous technical papers, and has received at least two dozen patents.

Dr. Ryder was elected to the Board of Directors of the IRE in 1952, became President in 1955, and was IRE Editor during 1958-59. He was a member of the merger committee that helped form the IEEE, was on the Board of Directors of the IEEE, and was the first IEEE Editor. *Spectrum* magazine was launched under his direction.

Dr. Ryder has been chairman of the IRE and AIEE Education Committees, the IEEE Fellow Award Committee, and the IEEE History Committee. In 1974 he was IEEE Executive Vice President, and in 1979 he received the Institute's Haraden Pratt Award.

—*Andrew Malcolm*
General Chairman

□

Inside

Centennial Medalists

As part of its 100th anniversary celebration, the IEEE has awarded 1984 Centennial Medals to members who have been selected by IEEE societies, sections, major boards, and other entities for outstanding contributions in their respective areas of activity.

The Professional Communication Society selected three members to receive the medals for their sustained achievements and support of PCS activities:

- **Ronald Blicq** for his books on technical writing, his Institute-sponsored workshops, and his correspondence course which meets IEEE-member continuing-education needs
- **James Lufkin** for enhancing awareness of the importance of clear communication in engineering and management, and his "missionary" work with plays at IEEE international meetings
- **Emily Schlesinger** for her professional activites in technical writing, her PCS leadership, and her service as *Newsletter* editor

Forty-one other members of PCS were cited by other IEEE entities for their contributions to electrotechnology or the allied arts and sciences:

R. V. Armstrong
Pomona, CA

W. L. Bacon
Monterey Park, CA

T. V. Balan
Bombay, India

R. Bartnikas
Varennes, Quebec, Canada

J. L. Blackburn
Bothel, WA

W. C. Dean
Alexandria, VA

G. F. McClure
Winter Park, FL

J. J. Miller
Shady Valley, TN

J. P. Nelson
Arvada, CO

D. R. Payne
El Paso, TX

R. L. Riddle
Winston-Salem, NC

P. T. Ryan
Erie, PA

(continued on page 5)

From the editor . . .

• Language is an important concern in technical text. Even among and between engineers and scientists there are language barriers. Technology is often defined in words and phrases that defy translation into conventional or widely understood terms. Everyday language, and even current technical language, often lacks the necessary precision and explicitness to describe emerging concepts. In other words, the specialized vocabularies (jargon) or the various technologies *are* useful and necessary. Conscientious authors and educators must either be absolutely certain that their audience really understands the language or they must surmount the language barrier.

The language barrier can be surmounted in two ways. One is literally to translate the technical language, consciously deciding on an acceptable trade-off between technical precision and effective communication. Consulting with technical expects coupled with user testing can effect this translation (P.H. Johnson *et al., IEEE Trans. Prof. Commun.,* PC-25(4), 182-185, Dec. 1982). Such writing is not *down* to the audience but *for* the audience. Seldom does simple, clear writing offend or alienate even an interested, highly educated reader.

The other method is to explicitly relate the underlying concepts and principles of the new technology to the audience's knowledge in other areas and contexts, such as those in a prerequisite course or phase of training (S.B. Dunkle and P.M. Jackson, *IEEE Trans. Prof. Commun.,* PC-25(4), 175-177, Dec. 1982). These two techniques, of course, are not mutually exclusive; they work well together.

• Here are three more communication hot lines:

—(215) 437-4471, *Writing Center Hotline* at Cedar Crest College, Allentown, Pennsylvania
—(217) 581-5929, *Grammar Hotline* at Eastern Illinois University, Charleston, Illinois
—(305) 475-7697, *Grammar Hotline* at Nova University, Fort Lauderdale, Florida

If you know of other such professional communication links, please send me the information.

. . . and the associate editor

Summer has arrived in full fury. A beekeeper I know spends his days rushing between beeyards and honey house, hiving swarms and building boxes. Each swarm will increase honey production and so must be captured. Each swarm requires a new hive to be assembled—two wooden boxes, called "supers," are joined, glued, nailed, and painted; ten wooden frames are assembled to hang inside each super; and a sheet of wax is wired into each frame to provide a smooth foundation for the honeycomb.

Ordinarily, all the hammering and painting takes place during winter months, so the beekeeper can spend his early summer tending the hives he already has and collecting whatever swarms occur. This year, however, summer arrived hot and wet, and more swarms have ventured forth than ever before. The resulting activity looks confusing—and the beekeeper looks weary—but the extra effort is already paying off. He has put

IEEE Professional Communication Society

Officers

Dan Rosich, **President**
Lois Moore, **Vice-president**
Leon Pickus, **Treasurer**
Deborah Flaherty, **Secretary**

Staff

Rudy Joenk, **Editor**
Dave Milley, **Associate Editor**

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together nearly half again as many hives as he had last year, and they are heavy with honey to be extracted when the weather cools off in October.

We are coming fast upon PCC84. The enthusiasm here is building, as is the work that must be done. Response to the conference announcement has been unusually strong. Registrations and requests for registration kits have arrived suddenly upon Leon Pickus' desk. Jack Friedman drops by almost daily with new developments for the program and to share hot ideas. Harrah's Trump Plaza has cleared the decks to accommodate us. The AdCom is tracking the entire process, to be sure we capture the benefits of our effort by the time of the conference, and to retain the strength this year's increased participation will bring.

We'll see you in Atlantic City!

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AdCom Election

At the March 16 meeting of the PCS Administrative Committee, Dan Rosich was reelected president and Lois Moore, vice-president; both terms are for one year. Leon Pickus and Deborah Flaherty were reappointed treasurer and secretary, respectively.

□

Your AdCom at Work

Standing—left to right: Andrew Malcolm, PCC84 General Chairman; Jack Friedman, PCC84 Program Chairman; Roger Grice, PCC85 Program Chairman; Bill Frevold, Conference Exhibits Chairman; Deborah Flaherty, Secretary; Jim Hill, PCC85 General Chairman.

Seated—left to right: Leon Pickus, Treasurer and PCC84 Local Arrangements Chairman; Richard Robinson, Membership Chairman; Lois Moore, Vice-President.

This was taken at the March 16th AdCom meeting at IEEE Headquarters, New York.

Agenda for PCC84

We have a fully scheduled three-day program beginning with a two-hour workshop on the UNIX operating system at 10 a.m. Wednesday. If you can stay only a day, checking in to the hotel Wednesday evening and registering for Thursday's events will give you the best value ever offered for one-day attendance at a PCS conference. Topping off the multiple sessions is the Author's Reception at 6 p.m.—included at no extra charge in the day's fare.

Of course, we have assembled a program designed to be interesting from Day 1 to Day 3. Right up to Friday afternoon we will be examining communication techniques and attempting to push the frontiers out a bit farther. We will end with a general session open to all who have ideas on how to make future PCCs even better.

Wednesday, October 10, 1984
Registration begins
Workshop I: UNIX Word Processing Operating System
Session I: Improving Information Presentations
Session II: Applications of Persuasion Theory

Thursday, October 11
Registration and Continental Breakfast
Session IIIA: Communicating with Peers
Session IIIB: New Publishing Techniques, Part 1
Session IVA: Teaching Engineers to Write Well
Session IVB: New Publishing Techniques, Part 2
Luncheon, Awards, Keynote Speaker
Session V: Practical Sales Approaches
Workshop II: Listening Skills
Session VI: Maximizing Author Relationships
"Meet the Authors" Evening Reception

Friday, October 12
Continental Breakfast
Session VII: Communicating for Professional Advancement
Session VIII: Informing and Motivating Employees
Session IX: Interactive Computers in Communication
Session X: PCC85 and Beyond

—Jack Friedman
Program Chairman

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Statements by Candidates for 1985 President-Elect

The following independently written statements by the two candidates for President-Elect, Dr. Jose B. Cruz, Jr. and Dr. Bruno O. Weinschel, have been especially prepared for readers of IEEE newsletters. It is hoped that these statements will supplement the biographical sketches and other statements made by the candidates which appear elsewhere in the IEEE literature and that they will assist IEEE member voters in the election process.

Statement by Jose B. Cruz, Jr.

Improvement of Technical and Educational Services to Members

Advances in computers, communications, microelectronics, electronic materials, electromagnetics, systems, energy, and other areas within the scope of IEEE concern have been dramatic in recent years. IEEE members must continuously learn a significant amount of new material. The nature of our profession demands that lifelong learning, in its broadest sense, occupy a central place in our individual activities.

The IEEE provides an organizational framework through which each member can participate to more fully utilize collectively developed technical services. Publications, short courses, workshops, Society and Regional conferences, and Section/Chapter meetings will continue to be the principal vehicles through which we achieve lifelong learning objectives. In view of the great diversity of our fields of activity and the speed with which these fields change, I believe that we need to develop new and highly flexible means of service for delivering educational and technical information.

This year the IEEE Publications Board—which I chair—will provide an experimental service called "Finding Your Way." This enables a member, who wishes to learn a new field, to access a computer system through a communication network. Members can obtain listings of tutorial articles, workshops and conferences, home study courses, special satellite broadcasts, short courses, IEEE press books, and other relevant aspects on desired topics. I propose to greatly expand this service so that a member with a personal computer or terminal may obtain a variety of additional information services from IEEE.

Enhancement of Status of Members of the Profession

An important mission of the IEEE is to enhance the status of the members of the profession. This is a constitutional mandate which I strongly support. Although our principal activity in this regard is confined to the United States arena, many professional issues have universal applicability. Thus, we are addressing concerns affecting the status of the profession as a whole. Moreover, we are serving the needs of a large fraction of IEEE members who reside in the United States.

I am very supportive of the USAB positions on career enhancement issues including professional practices for engineers and their employers, portable pensions, patent rights, and age discrimination; salary surveys and other member opinion surveys; and legislative coordination. We need to develop more position papers to address the major problems facing the profession. Furthermore, we should give strong support to the joint USAB/TAB initiatives on: technology policy issues on productivity, technology transfer, energy, the environment, and communications.

As President I will work for the improvement of our technical services to IEEE members through expanded tutorial and educational materials. I will support the creation of a system that provides access to a variety of IEEE information services through a computer network. Overall, I will press for the establishment of a dynamic professional development program to enhance the status of members of the engineering profession.

Statement by Bruno O. Weinschel

1. *Necessity To Improve Competitiveness:* The most important problem confronting the economy today where engineers can play a more important role, is the *re-establishment of our competitiveness in world trade and against imports*. This requires the introduction of many new technologies into "smoke stack" industries and continuing *improvement of the manufacturing processes, quality control, reliability, after-sales-service and customer satisfaction*. The management of some companies including Hewlett-Packard and IBM are emphasizing these points, but many others have not yet grasped that we are in a worldwide competition. About 90% of all products used here are subject to foreign competition. We need better manufacturing, quality and reliability engineering as well as marketing research. Our private sector management must be improved. *Engineers must participate.*

2. *Continuing Education of Engineers*: Industry must budget for the *maintenance of human technical capital*. Especially, electrical engineering changes so rapidly that continuing education is necessary to stay abreast of current technologies. We must *improve* the *utilization* of engineers, so that an engineer can use a greater part of his time utilizing his technical knowledge. This requires sufficient support by subprofessionals including technicians, tech writers, etc., and adequate facilities.

3. *Improvement of Engineering Education*: Many engineers feel unprepared for their jobs. Some schools still teach engineering on a narrow, disciplinary basis while in real life, the required knowledge is inter-disciplinary. For example, in semi-conductors, the demarcation between electrical engineering, chemistry, solid-state physics and advanced fabrication processes has practically disappeared. This needs to be reflected in the *structure and programs* of engineering schools. Since engineers work with other departments as well as the public, they must be able to *communicate effectively*. This is essential if more engineers are to become leaders in the shaping of policy in industry and government.

4. *Long-Term Civilian R&D by Industry*: About 70% of U.S. R&D is supported by defense. While important to national security, the Japanese and West Germans, as a percentage of GNP, spend more on non-defense research. Wealth, jobs and the trade balance are closely related to the amount and quality of non-defense research. Our industries must perform more long-term R&D in civilian products, services and process technology in order to improve the quality of life both here and in the rest of the world. Technology has improved and must continue to improve health, communications, environment, transportation, cost of energy and utilization of materials.

5. *Support for Engineering by the National Science Foundation*: The NSF by law must support both *science* and *engineering*. Historically, it concentrated on basic science. Its budget is about $1.5 billion. Grudgingly, within the last six years engineering increased to 10%. Its engineering research is not supportive of industry's new technologies. The needs of highly technical *industries* have outrun their support by the NSF. Our technological *competitiveness* is closely coupled to the *quality of our engineering research and talent*. Excellence in science is necessary but not sufficient. The NSF must improve the support of engineering research and education, resulting in new and better products and services.

How to Write a Book Review

1. Head your review with the following information:

   - Title (in caps and underlined)
   - Publisher and address
   - Place and date of publication
   - Hardback or paperback or . . .
   - Number of pages
   - Price

2. Start review-body with a "grabber" introductory sentence or paragraph. The review itself must entice the reader into learning about the book.

3. Comment about the author. Discern from content or the book jacket or any other source why the book was written. Comment on the author's background, expertise, or special qualifications to write the book.

4. Summarize the content, plot, or technical material. Give some key teachings of the book.

5. Comment on the content. Draw on your own background to analyze the quality of the content, its veracity, its contribution to the knowledge in the field, and any other aspect from which the content should be profitably viewed.

6. Comment on the format of the book, its English, its style, its level of writing as compared to the level of reader to which it addresses itself (or the level you think it should have been aimed), and anything else about the book's setup and writing.

7. Who (what audience) will benefit from or enjoy this book? Why?

8. Give a brief synopsis of your background with some indications of why that background qualifies you to comment intelligently on the book.

—EMS Newsletter, *Jan.-Feb. 1984*

For additional thoughts on the content of technical-book reviews, see "Book Reviews of Scientific and Technical Books" by M.S. Gupta, IEEE Trans. Prof. Commun., *vol. PC-26(3), Sept. 1983, pp. 117-120.*

□

Centennial Medalists

(continued from page 1)

M. Drummond
Henrietta, NY

R.M. Emberson
Eugene, OR

P.A. Field
Ottawa, Ontario, Canada

E.K. Gannett
New York, NY

T.H. Grim
Shaker Heights, OH

H.H. Heller
Mayfield Heights, OH

E. Herz
New York, NY

D.C. Hogg
Kitchener, Ontario, Canada

J.D. Huddleston III
Atlanta, GA

F.C. Kohli
Bombay, India

G.F. Kujawski
Woodland Hills, CA

G.A. Ledbetter
New Orleans, LA

H.S. Lunan
Montreal, Quebec Canada

A.S. Lundy
Los Alamos, NM

S.K. Sarkar
Berne, Switzerland

C.L. Schreiner
Baltimore, MD

G. Shapiro
Silver Spring, MD

D.B. Sinclair
Boston, MA

M.R. Smith
St. Louis, MO

C.E. Spike
Waterloo, Ontario, Canada

H.F. Storm
Delmar, NY

K.R. Thompson
Salem, VA

R. Valle-Sanchez
Barcelona, Spain

P.B. Wesling
Saratoga, CA

C.B. White
Rockford, IL

R.C.G. Williams
Surrey, England

D.H. Winner
Saratoga, CA

L. Winner
Coral Gables, FL

R.C. Winton
London, England

□

Want to be a Candidate?

The Professional Communication Society is governed by an 18-member Administrative Committee, six of whom are elected each year for three-year terms. The ballot for the 1985-87 terms will be included in the October *Newsletter.* If you would like to be a candidate, write or phone nominations chairman David B. Dobson, McGregor & Werner, Inc., 6411 Chillum Place, Washington, DC 20012; (202) 722-2246.

□

New PC-ers January–May 1984

AFRICA

Egypt
Mostafa, A.E.

Kenya
Okoyo, H.O.

Nigeria
Akintewe, R.O.

ASIA

China
Chen, C.-F.

Hong Kong
Lo, W.-S.A.

India
Kanitkar, V.J.
Mallik, B.B.
Rao, E.B.

Japan
Kawabata, K.
Nagai, Y.

North Korea
Ho, L.M.
Kim, M.J.
Lee, J.H.
Lee, T.

South Korea
Oh, S.K.
Park, C.-H.

AUSTRALIA

Bowden, G.K.
Ly, H.-K.

CENTRAL AND SOUTH AMERICA

Jamaica
Fung, G.F.H.

Peru
Campos, L.F.

Trinidad
De Lima, R.C.

Venezuela
Munoz, J.R.

EUROPE

Belgium
Tibaux, M.J

Denmark
Einersen, R.

England
Isimbabi, S.G.
Onochie, F.C.
Wood, M.J.

France
Brignon, J.M.
Magne, P.C.
Vuillaume, D.

Greece
Stavros, D.

Italy
Zerbini, E.

Spain
Bracho, S.
Marin, H.A.
Quesada, F.G.
Villar, E.

Yugoslavia
Abrashi, G.

MIDDLE EAST

Iran
Fereiduni, R.

Israel
Benichou, R.
Oren, R.
Safran, C.

Saudi Arabia
Alwakeel, S.S.
Haq, S.U.
Rehman, K.-U.
Soomro, A.A.

Turkey
Ungan, E.

NORTH AMERICA

Canada

Alberta
Shyne, B.J.

British Columbia
Henriques, G.D.
Lin, E.

Ontario
Alvey, S.D.
Aslett, A.C.
Buckley, D.C.
Ide, C.J.
Kouritzin, M.
Raftery, E.R.
Regoczei, S.B.
Virdee, S.S.
Wiegand, D.A.

Saskatchewan
Rever, G.K.

United States

Arizona
Hasslacher, J.A.
Pearson, C.R.
Phinney, T.L.

California
Alvarez, R.F.
Boyd, P.M.
Eng, B.T.
Gill, E.D.
Hakohen, A.
Haron, L.J.
Ho, C.W.
Kettenhofen, J.A.
Koesterer, I.
Mazzotti, A.
Nassar, F.A.
Niedrauer, R.V.
Sundareswaran, K.K.
Todd, T.W.
Urata, G.V.
Vik, G.N.
Wiekamp, E.L.
Williams, P.L.
Zaviantseff, V.T.

Colorado
Dell, S.A.
Melanson, J.L.
Pieser, W.R.
Spencer, J.R.

Connecticut
Belisle, R.J.
Blank, R.G.
McNichol, A.

Florida
George, J.D.

Georgia
Hughes, U.X.

Illinois
Bennett, A.J.
Berge, E.D.
Christenson, K.
Conklin, J.B.
Davila, A.G.
Dederich, S.S.
Perkins, J.R.
Sasore, T.T.
Zack, K.D.

Indiana
Alexander, S.J.
Hebel, R.J.
Pochop, R.J.
Sundberg, P.R.

Kansas
Safavian, R.

Maryland
Bunn, C.R.
Graham, R.B.
Green, J.W.
Meadows, B.

Massachusetts
Atchison, J.H., Jr.
Baughman, M.
Grau, A.W.
Hellmer, K.S.
Kahn, C.L.
Melo, M.D.
Nwakor, G.O.
Papke, F.E.
Patton, J.E.
Sarazini, A.V.
Shapiro, S.F.
Tsang, W.Y.

Michigan
Fertell, R.L.
Maring, M.G.
Mathes, J.C.

Minnesota
Boyd, D.L.
Dressen, D.
Follingstad, H.G.
Gupta, C.L.
Kuhns, R.C.
Moxness, K.L.
Ramee, A.J.

New Hampshire
Combs, H.G.

New Jersey
Alini, S.
Anderson, P.E.
Delmaster, J.R., Jr.
Flaherty, D.L.
Gimm, K.K.
Jensen, R.E.
Maldonado, G.U.

New York
Butcher, E.J., Jr.
Dejean, J.R.
Eisenhower, D.W.
Fideli, J.A.J.
Guest, D.C.
Hambrick, J.B.
Lepkowski, R.T.
Mahler, H.
Questore, J.
Strachar, E.
Williams, G.R.
Wong, G.C.

North Carolina
Cherry, E.S.
Crews, E.A.D.
Harrington, L.L.
Miller, C.S.

North Dakota
Gallagher, D.C.
Nelson, M.D.

Ohio
Johnson, D.E.
Paz, N.M.
Schmidt, J.R.

Oregon
Isacoff, S.
Sudduth, S.F.

Pennsylvania
Berta, J.A.
Fink, R.B.
Rebman, J.M.
Sweeney, P.M.
Yablonsky, P.J.

Tennessee
Larkin, K.H.
McDearman, J.R.
Rea, T.M.
Rizy, D.T.

Texas
Gilbert, M.H.
Goiffon, S.M.
Gray, M.W.
McKinney, M.J.
Moore, C.E.
Sibbitt, M.R.
Sveinsson, J.C.

Utah
Floyd, B.D.

Virginia
Al-Kinani, G.
Close, A.B.
Wagner, K.A.

Washington
Ramey, J.A.
Wu, E.
Yaver, J.

Wisconsin
Haight, D.M.
Jarvis, R.E.

—Emily Schlesinger

□

Test Yourself on Figures of Speech

Match the example with the figure of speech. Answers are on p. 9.

1. alliteration
2. anastrophe
3. apostrophe
4. asyndeton
5. chiasmus
6. enallage
7. hysteron proteron
8. metaphor
9. onomatopoeia
10. oxymoron
11. simile
12. synecdoche

a. Right from the horse's mouth
b. A mind like a steel trap
c. Parting is such sweet sorrow.
d. I came, I saw, I conquered.
e. The pitter-patter of little feet
f. All hands on deck!
g. Peter Piper picked a peck of pickled peppers.
h. Into the valley of death rode the six hundred.
i. Flowers are lovely, love is flowerlike.
j. But me no buts.
k. Milton! Thou should'st be living at this hour.
l. I'll murder him, and then I'll punch him in the nose.

—The Editorial Eye, *September 1982*
5905 Pratt Street
Alexandria, VA 22310

□

Charles A. Eldon Elected President-Elect

Charles A. Eldon, Manager of Capital Equipment for Hewlett-Packard Company, Palo Alto, CA, has been elected 1984 President-Elect of the Institute of Electrical and Electronics Engineers. Mr. Eldon was elected at a special meeting of the IEEE Assembly held on May 17 in Boston, MA, to choose a replacement for Dr. Donald D. King, former President-Elect who died in office on March 13. Mr. Eldon assumed the position of President-Elect immediately upon his election and will remain as such until January 1, 1985, when he will take office as 1985 IEEE President.

Mr. Eldon has long been active in the IEEE and served as 1983 Executive Vice-President, a position to which he was elected by the worldwide membership of the Institute. Previously, he was IEEE Treasurer in 1981-82. He also served on the Institute Board of Directors (1979-83), the Executive Committee (1981-83), and has been an IEEE Society President, Section and Chapter Chairman, and an active member of a number of committees including those covering Conferences, Member Benefits, Employees, Audit, Budget, and Investment.

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Hotel for PCC84

Harrah's Trump Plaza, the site of our 1984 conference in Atlantic City, NJ, officially opened on May 14. I visited the hotel on May 17 and it's everything we thought it would be—and more. The $220 million complex includes

- Six restaurants ranging from the gourmet (and expensive) Ivana's to the fast-food (much less expensive) Casino Buffet
- A health club featuring extensive Nautilus exercise equipment, sauna, whirlpool, and massage room
- An indoor, heated swimming pool facing the ocean
- Tennis and shuffleboard courts
- Many bars and cocktail lounges, some featuring entertainment
- 613 elegant, comfortable guest rooms (we're holding 175 at a greatly reduced price)
- A nursery and teen center

Our meeting rooms are spacious and well located on the sixth floor away from the noise of the gaming and restaurant areas.

I was dazzled by the hotel's elegant decor and impressed by the many open areas, including an outside walkway. You don't feel "closed in."

All the excitement of the hotel's gaming and show areas, the other hotels and casinos along the Boardwalk, the attractions of the surrounding New Jersey areas, nearby Philadelphia, and not-too-distant New York City await you and your family during the after-conference hours.

Your PCC84 committee has put together the best PCC ever, and you can make it the most successful ever: Register now!

—Leon Pickus
Local Arrangements Chairman

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Resume Data Bank

The United States Activities Board (USAB) of the IEEE has inaugurated the Professional Engineering Employment Registry (PEER), a new service to help members who seek employment or who wish to change positions.

According to Richard J. Backe, USAB Employment Assistance Task Force Chairman, PEER allows members to place their resumes in a data base without charge. Employers will then examine this data base for candidates seeking job openings. Special precautions are taken so that individuals can determine who will see their resumes and whether to remain anonymous.

The system is operated and marketed according to IEEE specifications by JobNet, Inc., a private firm headquartered in Massachusetts. PEER replaces the recently discontinued Professional Abstracts Registries (PAR).

A PEER application packet for members is available from the Professional Engineering Employment Registry, IEEE Washington Office, 1111 19th St. NW, Suite 608, Washington, DC 20036; (202) 785-0017.

Detailed information on PEER is also contained in the latest edition of the IEEE's *Employment Guide for Engineers and Scientists.* Unemployed members of the IEEE may receive a free copy by writing to the Washington office, stating that they are unemployed and giving their IEEE member number. The *Guide* is available to employed members for $7.50 from the IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08844; specify your member number and request IEEE Catalog No. UHO 156-0. The price of the *Guide* for nonmembers is $15.00.

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Leadership, Not Stagnation!

There is widespread agreement that students are not learning enough mathematics and science for the United States to maintain its world leadership in economic and military matters. Rapidly advancing technology and economic competition in a global arena are swiftly causing the obsolescence of old skills and necessitating improved levels of education, particularly in mathematics and science, for all people. Yet, since the 1960s, America has allowed the teaching of math and science to decline through apathy.

Almost every state has reported a shortage of mathematics teachers, and none except Alaska has indicated even a slight surplus. While the problem of teacher shortage is most critical in mathematics, it also exists in the sciences. There is a considerable shortage of secondary school teachers in physics and chemistry, and a shortage in biology. In contrast, there is a surplus of elementary school teachers and a considerable surplus of physical education teachers.

Alleviating the teacher shortage has been made more difficult, because the recent series of national reports calls for students to complete more math and science courses as requirements for graduation. The National Commission on Excellence in Education, in its report *A Nation at Risk,* set forth curriculum recommendations on what each student should study by the time he or she graduates from high school. After further investigation, the Commission concluded that only two percent of the present high school seniors in the country meet its recommended curriculum. As new courses are required, more and better prepared teachers will be required in these subjects. A complete solution to increasing the number of math and science teachers could easily take a generation or more of effort.

In the short-term, however, a great deal can be done. There are about 3.3 million engineers and scientists in the labor force. These people are experts in the content of secondary school math and science. Located in virtually every community in the nation, engineers and scientists can be a valuable resource to local educators and school administrators. They can serve on curriculum committees, offer to be guest lecturers on specific topics, provide career guidance, organize and serve as judges at engineering and science fairs, and engage in one-on-one tutoring, among other activities.

Professional societies can play an especially effective role in helping to mobilize the scientific and engineering communities on this problem. The societies comprise one of the main sources through which engineers and scientists identify with their respective professions and frequently have good channels of information with their members. IEEE recognizes its responsibility, both as an organization with a need for educating the next generation of electrical and electronics engineers and as a responsible corporate citizen interested in the improved education of all people in the nation.

Educational requirements and classroom activities are determined by states and local communities, by teachers and school administrators, by PTAs and school boards, and others. Engineers and scientists must work with those who have the primary responsibility for what takes place in the classroom.

You may wonder what you, an interested but lone individual, can do to help solve a problem with such astronomical dimensions as pre-college mathematics, science, and technology education. In addition to speaking out on the need for action, you can offer to help local schools and teachers learn more about the principles of engineering and science that are the basis of technological development, and assist them to gain perspective on the latest technological advances. You can help keep good teachers in the classroom and encourage the best students to enter education by speaking out to reward teaching excellence with salaries that are competitive with industry. IEEE will soon offer kits to assist you in working with your local educators. These kits will contain materials developed by IEEE in collaboration with other engineering, scientific, and educational organizations.

—*IEEE* Impact, *May 1984*

□

Answers to "Test Yourself on Figures of Speech"

1. g	4. d	7. l	10. c
2. h	5. i	8. a	11. b
3. k	6. j	9. e	12. f

□

PCC 84

Atlantic City
October 10-12, 1984
Harrah's Boardwalk Hotel

IEEE
Professional Communication Society

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Centennial Slide Show

In conjunction with the IEEE centennial celebration, the Center for the History of Electrical Engineering has produced a slide-tape presentation under the sponsorship of the Centennial Task Force. The show explores the development of the electrical engineering profession, focusing on the lives and experiences of individuals, on the nature of their work and accomplishments, and on the social, technical, and professional environment in which they made their contributions.

The presentation of 104 slides is accompanied by a taped narration, which lasts 33 minutes. Cassettes with either inaudible sync pulses or audible slide-change cues are available, and a script is also provided for those wishing to give a live presentation. Reservations for the show may be made through Mark Lucas, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854; (201) 981-0060.

Moore Appointed

Lois Moore, PCS vice-president, has been appointed to the new Communications Committee of the IEEE United States Activities Board (USAB). She was chosen for her activities and background with PCS and for her job-related skills at the Johns Hopkins University Applied Physics Laboratory.

□

Early Newsletter Deadline

To ensure that we have a pre-conference issue of the *Newsletter,* the deadline for the October issue will be three weeks early: **August 10.** Send your input to the editor. Graphic material is appreciated as much as text. Be sure there is no copyright or reprinting problem with either text or graphics.

Statements by Candidates for 1985 Executive Vice President

The following independently written statements by the two candidates for Executive Vice President, Dr. George P. Rodrigue and Mr. Merlin G. Smith, have been especially prepared for readers of IEEE newsletters. It is hoped that these statements will supplement the biographicl sketches and other statements made by the candidates which appear elsewhere in the IEEE literature and that they will assist IEEE member voters in the election process.

Statement by George P. Rodrigue

The IEEE is primarily a technical organization and has limited financial assets. Unlike a major corporation or government agency, the IEEE cannot hire full-time professionals to carry out most of its programs. However, the IEEE has enormous resources in its volunteer members, and its professional staff is best utilized to facilitate the voluntary actions of members. Our meetings and conferences are successful because interested and capable engineers volunteer both time and talents. Our publications are pre-eminent in many fields because reviewers, authors, and editors volunteer their efforts. In the professional area members write position papers, testify before government agencies, and lobby with local school boards, and the aggregate of individual member reputations has political power.

The IEEE has a good track record, but much remains to be done in making the engineering profession a rewarding life-long career. I believe that the IEEE Board of Directors should promote programs that foster collective and mutually supportive actions on the part of IEEE members. The program "Finding Your Way" that I successfully urged the Board to approve last year is one such example. This program builds its data base on the recommendations of technically qualified members, and will provide to IEEE members guidance on the best tutorial material available in a broad range of specific technical areas.

Programs in the professional area are also most successful when a heavy infusion of volunteer effort exists. I believe that part of the problem with the AAES is that it has no significant base of volunteer support. A true pooling of the knowledge and talents of engineers from various societies with common professional goals must be achieved. Top-down organizations rarely work on a voluntary basis.

Statement by Merlin G. Smith

It is an honor to be considered for the position of Executive Vice President. Participation in the Executive Committee and Board of Directors affords the opportunity to consider all the interests of the Institute. We are particularly interested in promoting efforts which foster interorganizational or interdisciplinal synergisms. These and other priorities are:

- Joint industry, government and university programs
- Cooperative activities between Society and Regional entities
- Collaboration amongst regional, technical and educational groups in the generation of affordable educational programs
- Conference services to an increasing number of members
- Publications to serve a broader member base
- Intersociety conferences and publications
- Individual-recognition programs
- Recognition of Engineering and Computer Science professions
- Responsible participation in societal and governmental forums
- An environment encouraging greater volunteer participation.

One of the specific functions of the Executive Vice President is to chair the Conference Board. As a founder and a current member of this Board, we can be effective in the brief one-year term of office. We also bring the experience as a past chairman of a major conference board, the National Computer Conference Board, chairmanship of the NCC, founder of the Compcon Fall series, and initiator of a number of workshops and meetings.

We have the support and encouragement of our employer, and we are prepared to give it a good effort.

The Echosulting Commissionaires

Behavior Pattern

The Echosulting Commissionaires are professional consultants who specialize in telling their clients what they already know in terms they want to hear. Their analytical tools are (1) *dittoanalysis* and (2) *retroanalysis* (analyzing past events for the purpose of finding a scapegoat). Their megamasticated reports are used primarily to gain support for weak positions.

Habitat

Though Echosultants can be found fluttering, pom-pistrutting, ground-pecking, and leaving their marks around government agencies, corporate headquarters, and other financially rich feeding grounds, the Echosulting Commissionaires operate only as members of blue-ribbon commissions, exalted study committees, and presidential task forces. They can also be seen working at night with word processors, *Roget's Thesaurus,* and Boren's *Fuzzify!*

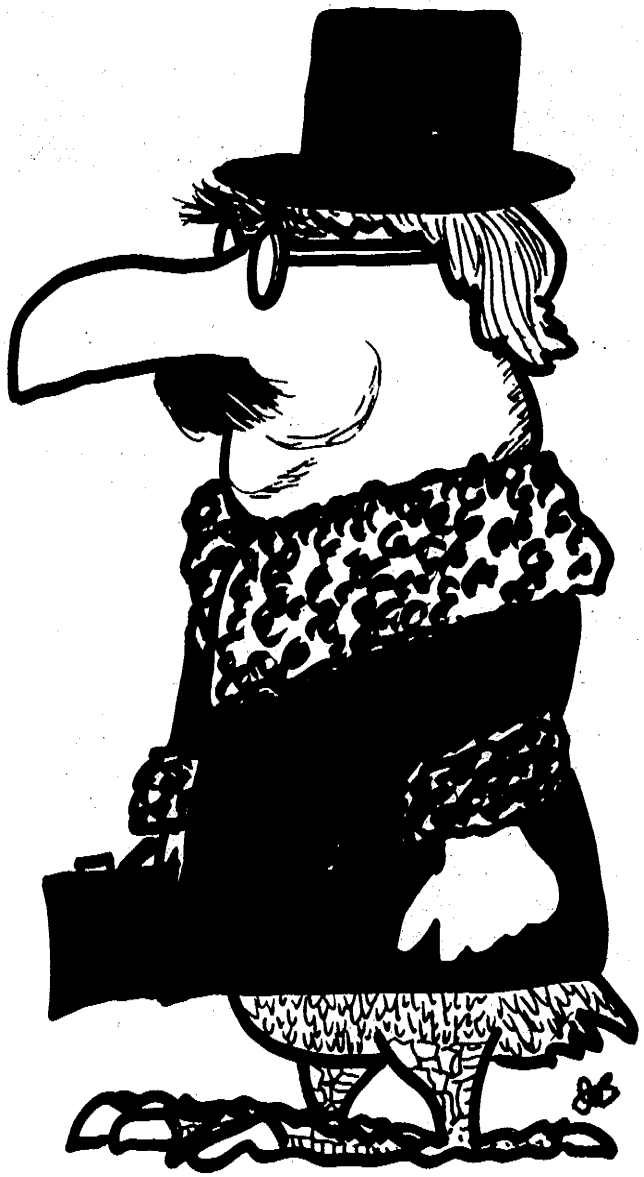
Plummage

Dignified phoniness.

Song

Warbled version of the Boren Aria: *Nothing is impossible until it is sent to a committee.*

—*Jim Boren*
Mumblepeg, February 1983



Newsletter
IEEE Professional Communication Society

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