

# IEEE Student 3 Newsletter

February, 1974  
Volume 2, No.3

## Career Outlook in Engineering

IEEE's Manpower Committee throughout 1973 was working on a practical, detailed analysis of the current state of electrical/electronics engineering and its future development. A recently published product of their efforts, Career Outlook in Engineering, covers four major areas of interest to Students. In the first section, "The Industry Picture", shows you where the U. S. engineering industry is today, where it is headed, and what roles EE's will play in future developments. "The Management Picture" is a detailed analysis of past, present, and future engineering manpower needs while the section "Careers in Engineering" pinpoints present and anticipated demand in various specialities and highlights growth areas that offer excellent career opportunities. Another section examines the changing role of the engineer in modern society. This report can be extremely invaluable to your engineering future. Career Outlook in Engineering is available for \$10.00 to IEEE members and \$15.00 to non-members. For more information write to: E. White at IEEE HQ. Send orders to: SUSU at IEEE HQ. (N.Y. State residents add appropriate taxes.)

## Wanted: Instrumentation Papers

Student-authored papers concerning the construction and operation of an instrument or a theoretical discussion of an instrument's principles and limitations qualify for the 1974 W. D. George Memorial Award. A \$250 cash award, increased from \$100 last year, and a certificate will be presented at an IEEE meeting of the successful author's choice. W. D. George, a distinguished radio scientist, played a major role in advancing the standard time and frequency programs of the U.S. National Bureau of Standards. The award, in his name, is administered by the IEEE Group on Instrumentation and Measurement.

A letter of nomination must be made by a Professor in the student's major field of study. Letters must provide the expected degree date, verify the originality of the work, and be accompanied by six copies of an unpublished report giving a definite conclusion, written during the 1973-1974 academic year; or seven reprint or preprint copies of a paper accepted for publication in an IEEE journal between March 1, 1973 and March 1, 1974. In the case of multiple authors, only one will be accepted as a candidate and the nominating letter must specify the degree of the student's participation. A student project may be used to support a nomination for only one year.

Deadline for receipt of nominations is June 15, 1974. Send nominations to Dr. James A. Barnes, Chief of Time and Frequency Division, National Bureau of Standards, Boulder, Colorado 80302.

## SAC Meets Again

The Institute Student Activities Committee (SAC) met in Melbourne, Florida last November in their second meeting for 1973. Chairman Harry P. Weber, Dean of Science and Engineering at Florida Institute of Technology, hosted the meeting on the FIT campus.

A number of the past year's programs and accomplishments were reviewed at the meeting. Regional SAC Chairmen and members of the Student Policy and Planning Committee (SPPC) began looking into several inactive Branches in each of their Regions. Larry Dwon, a member of the Committee employed by the American Electric Power Service Corporation, presented his 75-page report on "Factors Relating to IEEE Student Branch Performance". A continuing effort is being made to evaluate and implement the recommendations of the report which will eventually be distributed to all Student Branches. Students have become increasingly involved in Region and Section operations. Many Students have been appointed to Section Executive Committees but more effort is required in this area. IEEE's Student services and programs are also under scrutiny. The Student Activities Committee is investigating ways of making each area of activity more meaningful.

The next SAC meeting will be held on March 25 at INTERCON in New York. If you have any suggestions or comments about IEEE Student Activities, write to your Regional SAC Chairman or to Bob Asdal, Manager of Student Services at IEEE Headquarters (1974 listing of Regional SAC Chairmen appears on the last page).



Bob Asdal, IEEE's Manager of Student Services, caught goofing at Disney World.

Several SPPC and SAC members were also Mickey-Mousing around following the SAC meeting in Melbourne, but somehow managed to elude the camera.

## Students Qualify Too!

One of the outstanding benefits of membership in IEEE is the Group Insurance Program approved by the Institute to help meet your special needs. The coverage includes low cost life, accident, disability, hospital and excess major medical insurance.

The rates are lower than those of comparable coverage purchased on an individual basis. And they may be further reduced if any credits are earned. (Such credits benefit insured members only; the Institute neither profits nor incurs expense in the operation of the Program.) Interested? Return the coupon to get more details and eligibility information. There is no obligation.

## SPECTRUM Highlights

A special issue on Computers, SPECTRUM in February will give a broad view of the computer art and its possible future directions. Also, liquid-metal fast breeder reactors are described in a particularly relevant article as the world's attention focuses on energy.

March is shaping up as an interestingly diverse issue. "EE Employment Through the 70s" delineates the broad outlines of the present and near-future manpower/employment picture. Optical character recognition, simulating engineering problems, and the Swedish rail system are also covered. Another article, "A Career Profile of the IEEE Member", sheds some light on where he grew up, went to school, how far he migrated in seeking employment, and what motivates him in his job.

By the way, SPECTRUM received the "Award of Merit" from the American Society of Association Executives. Representing 4,500 executives of leading trade, professional, educational, and technical associations in the United States and Canada, ASAE annually recognize outstanding Association magazines, newsletters, and journals. Read SPECTRUM each month - it grows on you.

## Branch Reminders

Annual Reports and Financial Statements were due February 1 in IEEE HQ. Send your Reports in promptly and we will forward your 1973 rebate check.

Batching applications can cause delays. Some of our Branches have been waiting weeks and sometimes months to send new membership applications to Headquarters. It is best that individuals send their own applications to us. If you must batch, do not hold any application longer than a week.

Membership Sale Days. IEEE's half-price membership applies for all new applications received at HQ between March 1 and August 31.

**Administrator, IEEE Group Insurance Program** S/N  
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## ieee intercon74

March 26-29, New York Coliseum/Statler Hilton

IEEE INTERCON plans a three-day program of 42 half-day sessions on March 26-28 at the Statler-Hilton in New York City.

Program sessions are concentrated in five high-interest subject areas: solid state electronics, computers and information, instruments, and instrumentation communications, and marketing and finance.

In addition, there will be special meetings and programs organized by IEEE professional groups and other technical units. Besides the traditional technical film/theater at the Coliseum, there will be a group of management films to emphasize the INTERCON theme of "Getting Down to Business". Program chairman is Jack Raper and theater vice chairman is Gerard A. Alphonse. For more details contact IEEE INTERCON 74, 3600 Wilshire Blvd., Los Angeles, California 90010.

## Drexel's 25th

Apollo 14 astronaut Captain Edgar Mitchell will highlight Drexel University's 25th Science Day program on February 20th. Now President of the Institute of Noetic Science in California, Dr. Mitchell will take a far-sighted look at "Science of the Future" in his keynote address. Noetics, the study of consciousness and the interaction of the mind and the body, was the basis for one of his ESP and telepathy experiments tried on Apollo. Dr. Mitchell authored an article on the subject in the April 1973 issue of Psychic Magazine.

Drexel's day-long program will serve as a forum for several other distinguished speakers - some with opposing view on this emerging field. The IEEE Student Branch, working with Drexel's Federation of Engineering and Scientific Societies, was fundamental in organizing "Engineering and Science Day". For more information contact: Dave Faust, Drexel University, EE Dept., Chestnut at 32nd Street, Philadelphia, Pennsylvania 19104.

Also on this subject, see the January 26 issue of Business Week, Pages 76 - 78. A special program, "New Advances in Parapsychology", being held at INTERCON on Tuesday evening, March 26 in New York is covered in this issue.

## Intangible Benefits

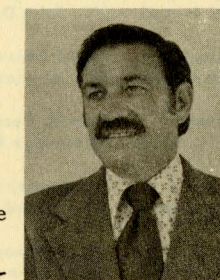
Three IEEE Student Branches in Milwaukee, Wisconsin along with the local IEEE Section have joined together to sponsor a seminar on Engineering, Education, and Employment. Marquette University, Milwaukee School of Engineering, and the University of Wisconsin - Milwaukee, each with a different approach to engineering education, co-sponsored the seminar on February 9.

One objective was to provide students with the opportunity to discover how curricula differ from one school of another, which offers the chance to better understand engineering with whom they will someday work. An insight into the operation of small, medium and large engineering firms was also covered, including what is expected from an engineer and how this varies with size.

An intangible IEEE benefit, the seminar also provided the opportunity for personal contact. Tim Cowen, Program Chairman, wrote: "It is hoped this Seminar may set an example of how IEEE Student Branches may better serve their members." It looks like it has.

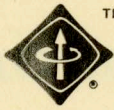
Harry P. Weber,  
Chairman  
Student Activities Committee

*H P Weber*



This has been a year of accomplishment for the IEEE, and in particular for Student Activities. It has been for me personally a most rewarding year, and an additional honor to be requested to serve another term as the Chairman of the Student Activities Committee. I thank you all for your patience and assistance during the year 1973, and I am confident that if we continue to work together, 1974 will be an even better year.

I challenge you to start on the road which will someday earn you the accolade of being called a PROFESSIONAL. One way to start is to be active in IEEE affairs. If you participate, if you contribute, and if you observe, your IEEE association will be invaluable in reaching your goal of being a full-fledged member of the action group called PROFESSIONALS, who need nothing more than accomplishments to speak for their contributions to society.



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The Editor welcomes contributions from Student Branches, Student Members, IEEE Organizational units, and other sources. Editor: Robert K. Asdal.

## Vincent Bendix Award Winners

Region 7 University of Alberta  
\$350 Award Dr. Keith A. Stromsmoe, Counselor

Region 5 University of Wyoming  
\$150 Award Professor R. K. Beach, Counselor

Region 4 University of Detroit  
\$220 Award Dr. James J. Freeman, Counselor

### Honorable Mention

Region 4 University of Illinois at Urbana  
\$350 Award Dr. John D. Dyson, Counselor

Region 5 New Mexico State University  
Professor J. E. Steelman, Counselor

Region 7 Laval University  
\$350 Award Mr. Bernard Tousignant, Counselor

Region 4 University of Notre Dame  
Professor L. F. Stauder, Counselor

Region 1 Lowell Technological Institute  
\$300 Award Professor Ronald Brunelle, Counselor

Region 3 Old Dominion University  
Dr. G. F. Songster, Counselor

Region 4 University of Nebraska at Lincoln  
\$290 Award Dr. Alfred H. Witte, Counselor

Region 5 Prairie View A & M University  
Mr. Sam Daruvalla, Counselor

Region 4 South Dakota State University  
\$200 Award Dr. Duane Sander, Counselor

## 1974 Regional SAC Chairmen

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