

IEEE Student 4 Newsletter

April, 1975
Volume 4, No. 4

Publishing First—Top papers to go to press!

Thanks to the hard work of Dave Dobson, a member of the Student Activities Committee, and the generosity of several of IEEE's Groups and Societies, the first, second, and third place Student-authored papers in each of the 10 Regional Paper Contests will be published in a single IEEE publication: IEEE 1975 Student Papers. Planned as an annual publication, this will give the best Student-authored papers in the Institute the recognition they so well deserve.

Significantly, this will be the first time that IEEE Student members have a method for world-wide distribution and recognition of their papers. Papers will be bound in a single volume and distributed to the Library of each College or University with an IEEE Student Branch and to each of our 450 Student Branches at no cost. Additional copies will be available for sale.

IEEE 1975 Student Papers will be available in October 1975. For more information contact Bob Asdal, Manager, Student Services, IEEE, 345 East 47th Street, New York, New York 10017.

Publishing Opportunity—

All types of student-authored papers wanted!

Arrangements have been made by the Student Activities Committee with a number of IEEE's 31 Groups and Societies to publish in their Newsletters student-authored papers (or condensed versions thereof) which were presented in an IEEE Student Paper Contest at a Branch, Section, Area, or Region level. Here is how it works:

1. Send a reproducible copy of your paper to: IEEE, Manager, Student Services, 345 East 47th Street, New York, New York 10017.
2. On a separate sheet accompanying your paper, list your name, address, IEEE membership number, highest degree earned, school you are attending, and graduation date. Include a statement of the Contests in which the paper was entered and how it fared. (This information will be considered proprietary and will not be forwarded or published.) Also, provide a biography and photograph of yourself.
3. When received, papers will be classified to determine their area or areas of applicability and will be forwarded to the appropriate Group or Society, which has expressed interest in receiving student papers, for publication consideration. Final decisions regarding publication will be made by the IEEE Group or Society.
4. Papers will be acknowledged when received and authors will be notified to which Group or Society the paper is sent.

Here is a great opportunity to have your paper disseminated and discussed in the technical forum to which it applies and to receive the acclaim of a published author. Don't wait ... submit your paper today!

Top Ten Branches

To foster a little friendly competition, the Student Newsletter recognizes the ten largest IEEE Student Branches, based on membership as of December 31, 1974.

University of Illinois, Urbana	345
Polytechnic Institute of New York	300
Massachusetts Institute of Technology	283
Stanford University	256
University of California at Berkeley	243
University of Colorado at Boulder	239
University of Missouri at Rolla	219
City College of the City University of New York	215
University of Texas at Austin	211
Purdue University	209

Of course, another way to look at it is the percentage of eligible Students who are IEEE Student members - and the Nova Scotia Technical College, Halifax, has 100 percent of those eligible as IEEE Student members.

Keep up the great work. Anyone wanna race for December 31, 1975?

Ham Directory—Last Call

HAMS world-wide take note. The 1975 edition of the IEEE HAM Directory is about to go to press... but if you are working the airwaves - if you want to contact other IEEE Student members or Branches - or participate in the North American HAM Net - THEN IMMEDIATELY: send your name, address, and call letters to Bob Asdal, Manager, Student Services, IEEE, 345 East 47th Street, New York, New York 10017.

A Directory - including details on how to participate in the HAM Network - will be mailed to you when published.

Conference on Engineering Ethics

Jointly sponsored by ASME, IEEE, AICHE, NSPE, ASCE, AIME, and ACS, the Conference on Engineering Ethics will be held on May 18 and 19 at the Baltimore Hilton Hotel, Baltimore, Maryland. Among the topics covered will be "Case Histories" of engineers who experienced a conflict of loyalty to their employer and the public in carrying out their assignments; "Responsibilities of an Engineer", and "Enforcement of the Code". Registration is free to Students. For more information, contact Peter Edmonds, IEEE, 345 East 47th Street, New York, New York 10017. Telephone number: 212-752-6800.

Graduating?

Congratulations to each of the nearly 8,000 IEEE Student members graduating in the coming months. IEEE looks forward to serving your educational, technical, and professional needs as your career progresses. You should have already received a "Graduate Information Form" from IEEE that requests any address changes and verifies that our information on file is correct. You will also be receiving notice of your automatic transfer to the next level of IEEE membership, including a brochure describing the wealth of membership benefits available to you.

If you are continuing studies as an enrolled undergraduate or graduate student - and will not graduate until 1976 - you still qualify for Student membership grade. Notify IEEE either by the "Graduate Information Form" or by letter, of your new expected date of graduation and the school you will be attending. Address changes for IEEE mail should be provided to IEEE 6 weeks in advance to assure uninterrupted delivery of IEEE mail. You should also make arrangements with the Postal Service to forward your IEEE publications which are mailed second-class bulk - otherwise you may miss an issue until your new address takes effect. Your mailing address also determines the local IEEE Section to which you are assigned - and for which you receive a Section Newsletter and meeting notices, when published.

If you have any questions regarding your membership, contact Bob Asdal, IEEE Manager of Student Services, 345 East 47th Street, New York, New York 10017. Telephone number: 212-752-6800.

"The Young Engineer . . . A Professional Guide"

A new booklet, recently published by the Engineers' Council for Professional Development, touches upon many of the professional concerns of interest to the upcoming or recent graduate. In six sections, the Guide deals with the Transition from Student to Graduate; the Engineering Graduate; Beginning Professional Practice; Registration; Professionalism and Unionism; and the Engineering Heritage. Single copies are \$0.75 each. Bulk order of 100 or more discounted 20 percent. Write ECPD, 345 East 47 Street, New York, New York 10017.

IEEE Standards—1975 Catalog Available

More than 350 IEEE Standards publications, including a number of American National Standards published by IEEE, are listed in the 32 page Standards Catalog. Listings by subject as well as in numerical sequence. Single copies are available for the asking from IEEE Standards Department, 345 East 47th Street, New York, New York 10017.

Engineering in Medicine and Biology—Highlighted

Biomedical Engineering - What It's All About

BME, an interdisciplinary field only about 25 years old, is concerned with the application of engineering concepts and technology to living systems, and is expected to experience explosive growth in the next decade. Biomedical engineers work in the following broad areas:

1. In research in applying engineering concepts and technology to advance the understanding of biological systems and medical practice;
2. In developing instrumentation, materials, diagnostic and therapeutic devices, artificial organs for application in medicine and biology;
3. In applying engineering concepts, methodology, and technology to improving health service delivery systems in hospitals, clinics, governmental units, universities, and industry.

The IEEE Engineering in Medicine and Biology Group serves the unique interests of over 7000 members, including 2000 Students, in this rapidly expanding field.

Biomedical Engineering Education and Employment

For more information on educational and occupational opportunities, and the accomplishments, concerns, projections, and problems of this relatively new interdisciplinary profession, see the March 1975 IEEE Transactions on Biomedical Engineering.

28th Annual Conference on EMB

Mark your calendars now: September 20 - 24, Fairmont Hotel, New Orleans, Louisiana. For more information on the technical sessions, or scientific and commercial exhibits, contact: Patricia I. Horner, Alliance for EMB, 28th ACEMB, Suite 1350, 5454 Wisconsin Avenue, Chevy Chase, Maryland 20015. Telephone number 301-657-4142. Indicate you are an IEEE Student member and you saw it in the Student Newsletter.

Ms. Biomedical Engineer: A New Professional Opportunity for Women

For women, Biomedical engineering provides a variety of career possibilities. Thelma Estrin zeros-in on the professional opportunities available in an article published in the February 1975 IEEE Transactions on Education.

Student Papers on EMB

The 28th Annual Conference on EMB will also include a Student Paper Technical Session Competition. For more information, contact: Dr. Richard J. Gowen, Lieutenant Colonel, United States Air Force Academy, Colorado 80840. Telephone number: 303-472-2652.

Comments from a Student AdCom Member

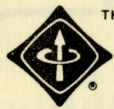
Richard Burgess, Student member of the GEMB AdCom, in the April GEMB Newsletter, comments: "During the past year, I have concentrated on increasing student involvement in the Group. Three areas are significant to note: (1) For most Students, the publications are the major identity they share with the Group. There has been growing interest among all members in the publication of more tutorial and review articles and it is good news to report that the Transactions will soon contain at least one review or tutorial article per issue; (2) Student representation on the AdCom continues to serve an important role with nominations coming from the Regional Councils, by petition, or directly from the Committee; (3) In response to a motion I made, a \$1000 Summer Fellowship has been established to more directly involve Students in the affairs of the EMB Group. My experience over the past year has been exceptionally gratifying, and I strongly encourage other Students to take advantage of the valuable opportunities participation affords."

How to Get Involved Locally

Each Group and Society has local Chapters, organized within IEEE Sections, that hold technical meetings and provide opportunities to meet others with similar interests. One of the important benefits of IEEE membership is attending such local meetings. Find out if there is an EMB Chapter in your Section - ask your Counselor, Section Chairman, or write to Bob Asdal at IEEE Headquarters - and attend their next meeting. You will be welcomed with open and enthusiastic arms.

The Other 30 IEEE Groups and Societies

EMB is only one of IEEE's 31 Groups and Societies which form the technical foundation for a member's life-long participation in the Institute. As a Student member, you have an opportunity to join any one or more of the Groups and Societies for substantially reduced membership fees. For more information write to IEEE Manager of Student Services, 345 East 47th Street, New York, New York 10017.



THE INSTITUTE OF
ELECTRICAL AND
ELECTRONICS
ENGINEERS, INC.

345 EAST 47TH STREET, NEW YORK, N.Y. 10017

Non Profit Org.
U.S. Postage
PAID
IEEE

IEEE STUDENT NEWSLETTER is published quarterly during the academic year by the Institute of Electrical and Electronics Engineers, 345 East 47th Street, New York, New York 10017. Material may be reproduced without permission, although credit to the source is appreciated. Annual subscription: IEEE Student Members, included in membership dues; other IEEE members \$3.00 (single copy \$1.00); all others \$6.00 (single copy \$2.00). Change of address requires thirty day notice to IEEE.

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

Enrollments Swing Up

Entering enrollments in U.S. engineering schools took a sharp upturn for the 1974-75 school year, marking a reversal of a 10-year decline, according to data just reported by the Engineering Manpower Commission of the Engineers Joint Council. The freshmen class of 63,000 was 22 percent larger than the previous year's, but still smaller than every class between 1954 and 1970.

Significantly, retention in the preceding years' classes bolstered overall enrollment considerably. The 1974 sophomore class was 13 percent larger and the junior class 3 percent larger than in the preceding year. Admissions and Placement officials observed that students are increasingly aware of engineering as one of the few fields where future prospects are bright and jobs are available.

Electrical Engineering claims the most students at all degree levels, followed by civil and mechanical engineering. Major gains - across the board - were achieved by women and minority members this year. There were 69 percent more women and 30 percent more blacks in the 1974-75 freshmen engineering class. The increased interest in engineering on the part of the young women appears to be nation-wide and probably represents a basic change in career aspirations and awareness.

Detailed results of the EMC enrollment survey are being published by the Engineers Joint Council in the 200 page report, Engineering and Technology Enrollments, Fall 1974. Copies are available for \$35.00 each from EJC, Department D, 345 East 47th Street, New York, New York 10017.

IAS Recognizes Student Leadership

The Milwaukee Chapter of the IEEE Industrial Applications Society recently recognized the Student Branch Chairmen from each of the four Milwaukee area technical colleges. In recognition of their outstanding service and dedication, John Chiarelli - Marquette University; Mark Wilhelm - University of Wisconsin - Milwaukee; Michael Lee - Gateway Technical Institute and Jeff Kranczyk - Milwaukee School of Engineering were honored at a joint Section dinner meeting. In presenting the awards, Mr. Frank Liety, Chairman of the Milwaukee Chapter of IAS noted, "the success of the entire IEEE Student program depends, to a great extent, on the effort and determination put forth by Student Branch Chairman ... a position of responsibility that all too frequently goes unrewarded."

TO EACH OF OUR 450 DEDICATED, ENTHUSIASTIC, AND ACTIVE STUDENT BRANCH COUNSELORS AND CHAIRMEN ... SERVING OVER 22,000 STUDENT MEMBERS AROUND THE WORLD ... OUR THANKS FOR PUTTING IT ALL TOGETHER AND MAKING IEEE'S STUDENT PROGRAM THE SUCCESS IT IS TODAY.

See You in October . . .

This is the last issue of the Student Newsletter for the 1974-1975 academic year. We start up again with the October 1975 issue.

Articles for and comments about the Newsletter are always welcome. Have an enjoyable summer - and drop us a line when you can. -Ed.