

# IEEE Student Newsletter

October, 1973

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Volume 2, No. 1:

## Switched-On Bach

What do thunderstorms, alleycats, and Bach concertos have in common? Student Branch members at the University of Kansas (Region 5) found out from Dr. Robert Moog, musician-physicist and designer of the Moog Synthesizer. Describing voltage controlled oscillators and amplifiers, Dr. Moog put purring felines and thunderstorms into electronic perspective. Illustrating the potential of synthesized sound, "Switched-On Bach", a top selling Moog orchestration of 10 Bach pieces, gave the Kansas Students a much better idea of the electronic wizardry behind the Moog.

## Roving Program

The University of Alabama (Region 3) Branch at University is located in the heartland of the U. S. Space program and they take full advantage of it. Past talks included "The Lunar Roving Program", "Remote Sensing of the Earth's Resources", as well as "Applications of Aerospace Technology to General Industry". Not quite as spaced-out, another aspect of their program included tours of U. S. Steel, the Auburn University EE Department, and Southern Natural Gas Total Energy Plant in Birmingham. That's what we call making the most of your local industrial environment.

## Number One

Past Student Branch Chairman John Gordon and Counselor Otto Friedrich led the way as the University of Texas at Austin (Region 5) Student Branch topped 300 members to become the largest of 430 IEEE Student Branches. That leverage and membership helped attract some top-notch speakers. A biomedical professor talked about "Sex and Engineering Applications"; Howard Barnes, Past President of the Power Engineering Society, conducted a seminar on "The Role of the Engineer in Society" and Dr. Stephen Spurr, President of the University, discussed "Forestry Management". Keep up the good work Austin!

## VOIEEE

A bon-vivant's cry of epicurean delight? Not quite - it's the call letters for an amateur radio station set up by Memorial University of Newfoundland (Region 7). A relatively new Student Branch, they have already established a formal course to help Students prepare for the Ham license. If you'd like to contact other members on the air, write to IEEE Headquarters for a free copy of the "IEEE Directory for Student Hams" (P. S. enclose a self-addressed envelope).



# Dreaming? \$500 Reward

Up to \$500 in cash is again being offered to fund innovative undergraduate Student Branch projects through the annual Vincent Bendix Award program. Projects and programs are judged on the basis of brief proposals prepared by Branch members and approved by the Student Branch Counselor. Judges for the 1972 competition selected seven winners to receive over \$2000 in prize money! The Vincent Bendix program has helped many an idea mature into rewarding reality.

Don't be caught up with all the Walter Mitty's in life, simply dreaming about one idea after another. Bring to fruition that idea or project to which money was the only obstacle. Organize... get other members of your Student Branch involved. Submit a proposal for a 1973 Vincent Bendix Award.

Awards for the 1973 Vincent Bendix competition will be made in early 1974. Deadline for proposals is December 1, 1973. For more information and abstracts of winning proposals from previous years write Bob Asdal at IEEE Headquarters.

## Bendix Headway

Student members at Louisiana Tech University (Region 3) report that their 'Water Quality Monitor' is "on schedule, with no critical problems." The Branch won first place in the 1972 competition and received \$400 to design and construct the portable device. Ten Students are working on the project. The Student project leader, responsible for coordination, finances, and report writing receives two credit hours for his efforts.

## Tripping Out

Over forty Student members from the University of Louvain and the University of Liege Branches in Belgium (Region 8) visited the United States during a two-week period in the spring. Spending one week in the Boston area, they had a chance to visit MIT as well as a few of the high technology industries along famous Route 128 as guests of the MIT Student Branch. The second week of their stay was concentrated in "fun city" - New York. Back home both Branches reported very active programs including conferences, and lecture series for their members. More such "transnational" visits are in order. Any one interested?

## Italy

A number of non-U. S. Branches have highly technical programs and the Student Branch at the Politecnico di Milano (Region 8) is no exception. During a recent

three-month period, they heard six speakers on such diverse topics as "Meteorologic Radar Study of SHF Propagation", "Artificial Intelligence", and "Boundary Representation Techniques for Image Processing". Somehow they also managed to visit IBM, Honeywell, and a local telemetry facility in this same period.

## Education Ad Infinitum...

Looking beyond the B.S. degree John Kinn, Director of Education Services for the IEEE has put the educational role of the Institute into perspective in "Continuing Engineering Education and the IEEE". The article appeared in the May 1973 issue of the IEEE Transactions on Education. John Kinn, in describing what IEEE has done to "promote as policy and practice the concept of learning throughout life" outlines programs of use to individual members as well as Sections, Chapters, and Branches. As examples, "Field Effect Transistors", and "Pulse Code Modulation" are among the titles offered as self-study courses. Cassette Colloquia, another IEEE offering, allows the individual to hear what has transpired at one of IEEE's numerous meetings. A companion cassette called Soundings is a highly edited and compact source of tutorial information on selected subjects which are considered of current interest. Listings of titles available can be found in the Educational Aids Section of SPECTRUM each month. Other IEEE resources such as IEEE Press, Bibliographies, Short Courses, Slide Tapes, and the Educational Activities Manual are also described.

## The Other Half

An IEEE Section may have as few as 50 or as many as 8000 members within their territory. As a Student member of IEEE, you are also a member of your local Section. You should receive Section publications (directly mailed to you or distributed through your Student Branch) to keep you informed of their activities.

Many Sections plan activities specifically for their Student members. Dinner 'rap sessions', "Student Activities Night", and Paper Contests are typical. Other more technical meetings, maybe of particular interest as well. One way or another this opportunity of meeting key engineers and educators in your area is an opportunity - an abstract benefit of IEEE membership - not to be overlooked. Attend a Section meeting when you can - see how the other half lives.

## Students and Chapters

The following brief article by Leo Young, Director of Division IV (which represents 6 Groups and Societies) appeared in the June 1973 issue of the Electron Devices Newsletter:

I have just returned from giving three talks in as many days, one at the International Circuits Theory Symposium in Toronto, and two at the University of Illinois, where one talk was on a technical subject and one about the IEEE. It was a pleasure to address a student audience. I believe today's students are more aware of their professional responsibilities than we were a generation ago. One question I was asked was to the effect: "How can we identify with IEEE when it is so big?" The answer I believe is to identify with a Group or Chapter (or Section or Student Branch) and through it with IEEE. We need the smaller units to identify and to profit from meetings and publications of immediate interest to us, and we need the umbrella of the large organization to cooperate and to be more effective. I believe IEEE should do more for its students and for its Chapter members.

## Picture This...

We're putting together a slide-tape illustrating the benefits of IEEE Student membership. It will give new members the "big picture" of what IEEE is all about.

The hitch: we need good color slides showing Students involved in IEEE activities - people pictures. If you're a budding photographer and would like to help write to Bob Asdal at Headquarters for more details. Pictures may also be used in the Student Newsletter or SPECTRUM.

## SAC to Meet

Twice each year Regional Student Activities Committee (SAC) Chairmen and their Student counterparts (Student Policy and Planning Committee - SPPC members) gather to discuss and plan programs and policies that effect the entire IEEE Student membership. Together, they comprise the IEEE Student Activities Committee. Florida Institute of Technology hosts their next meeting in Melbourne on November 10 - 12.

The Committee provides Regional Directors with guidance concerning all Student activities. As an example, an evaluation and review of Student Paper Contests, the Bendix program, and other IEEE services relating to Student members is now underway. Improvements in the IEEE Student services and activities will result from these efforts. Dr. Harry Weber, Dean of Science and Engineering at FIT and Chairman of the Committee, states their goals as simply "improving the health, education, and welfare of IEEE Student members".

Your suggestions and comments are always welcome. Faculty Counselors and Student Branch Chairmen have been provided with "IEEE Student Organization" leaflets which give the names of your Regional SAC and SPPC representatives. Now is the time... let them hear your ideas and suggestions before the November 10 - 12 meeting.

## The Engineer

That's how the IEEE Student Branch at the State University of New York at Buffalo (Region 1) described a recent symposium for incoming engineering students. Engineers talking about engineering. Novices got a chance to find out what it's all about in the six-part series which began on September 10. Industrialists and academicians discussed what an engineer can expect and what can be expected of him (or her) in the design, production, quality control, management, and sales worlds. The well-attended program laid a concrete foundation to help Students appreciate some of the more abstract curriculum which lies ahead.

## SPECTRUM Highlights

Maybe you missed an article of interest or one important to your future. SPECTRUM's "midyear tally" of the most popular articles can be found on Page 35 of the September issue. Looking backwards may be just as rewarding as looking ahead!

Harnessing solar energy by tapping the tropical seas is the subject of the cover article, "Solar Sea Power" in the October issue. Other articles of interest include: "New programs for engineering schools", and "Survey of EE's salaries". Both articles will give you an idea what to expect in your educational or occupational future. Looking further ahead you will want to check out the distaff side in "Women in Engineering", an article scheduled for the November issue.

Also, each issue of SPECTRUM now contains news from your own Region. Keep yourself informed by making IEEE SPECTRUM a monthly reading habit.





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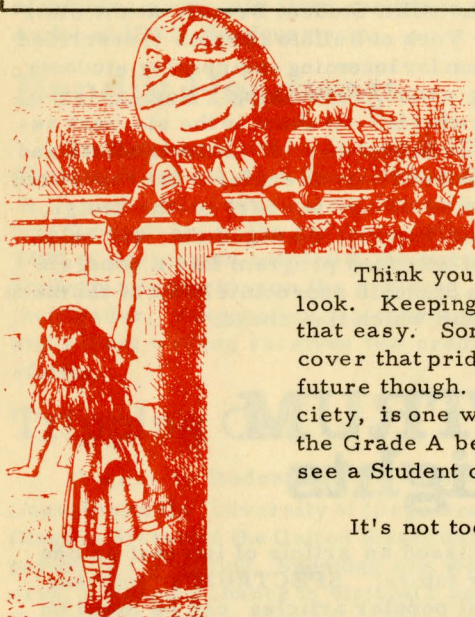
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The Editor welcomes contributions from Student Branches, Student Members, IEEE Organizational units, and other sources. Editor: Robert K. Asdal.



## Hello Egghead

Think you're a Big Man on Campus, eh? Well, you're not as hard-boiled as you look. Keeping on top of the advances in electrical and electronics engineering isn't that easy. Some non-joiners have passed up Student Branch activities - only to discover that pride goeth before the Fall. No need to get all broken up about a scrambled future though. Student Membership in the IEEE, the world's largest engineering society, is one way to guarantee that you'll be more than a Flash in the Pan. Check into the Grade A benefits of getting involved. And while at it do a favor for a friend - see a Student officer or the IEEE Counselor at your school for an application.

It's not too late to pick up the pieces, Big Boy.

## Branch Bargain Offer

IEEE Student Branches may now subscribe to Group and Society TRANSACTIONS and JOURNALS at the Student member rate of \$2.00 each annually. Half-year payment (March 1 - August 31) will not be accepted. Branch libraries and IEEE Student lounges can offer a full complement of IEEE TRANSACTIONS as an additional service to their members.

All subscriptions will run on a calendar-year basis. Back issues will be shipped from January 1 for orders received after January 1 of the current calendar year. Orders should be received in IEEE Headquarters by November 15 to assure a continuous full year's subscription.

Orders must be received on Student Branch letterhead and clearly indicate (1) Name and mailing address of the Branch, (2) Name and code number of subscriptions desired, and (3) Calendar year(s) for which the subscription applies. All requests must be endorsed by the IEEE Counselor.

Student Branches should send orders to the Subscription Service Unit at IEEE Headquarters.