

## GENERAL ENGINEERING NEWSLETTER

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### FACULTY GIVES PAPERS

At the sixth national conference on agricultural meteorology held October 8-10 in Lincoln, Nebraska, Prof. John E. Pearson reported details of "A Soil-Gas Emanation Measurement System" developed in the Department. John is Director of the Atmospheric Science Laboratory sponsored here by the US Public Health Service to investigate air movement and pollution, presently using radon as a tracer material. Joint authors with Prof. Pearson were Donald H. Rimbey, Instructor, and Gary E. Jones, graduate assistant.

Before the Society for the History of Technology as part of the AAAS assembly in Montreal on December 30, Prof. Robert A. Jewett gave a work-in-progress review on "Structural Antecedents of the I-Beam." An account of early forms of iron-production, this is a section of his monograph in preparation covering the entire spectrum of the transition from railroad rails to structural shapes for buildings.

As a part of his campaign to combine economic and technical considerations in training for engineering decisions, William F. Berkow, GE Asst. Prof., has published an article "Need for Engineering Influence Upon Accounting Procedure" in "The Accounting Review" for April, 1964. Here he is trying to impress upon accountants the effect of tolerances and maintenance or production methods, with provision that should be made for them in accounting procedures and decisions.

### NEW TEXT BY GE STAFF

The first complete presentation of graphics instruction at the technical institute level, "Basic Drawing for Engineering Technology" has gone into use this fall. Authors are R. P. Hoelscher, Emeritus Head of the Department, C. H. Springer, Emeritus Professor, and J. S. Dobrovolsky, present Head. Publisher is John Wiley and Sons, New York

### NEWS OF GAMMA EPSILON

Gamma Epsilon, the GE scholastic society, plans to produce a pamphlet for prospective GE students. Description of student-faculty and faculty-industry relationships within the Department is expected to be an interesting contribution for Engineering Open House, to be held this year on March 13-14.

Alums will be interested to know that three of the society officers, President Gerald Lasson, Treasurer Dave Burge, and Engineering Council Representative William Fraser, attended the 1960 NSF Summer Science Training Program for High Ability Secondary Students conducted by the College of Engineering with J. S. Dobrovolsky as director, for high school seniors interested in science and engineering. This was the first such program to be held locally under the sponsorship of the National Science Foundation, and its returns are just becoming obvious.

Other officers for 1964-65 are Ray DePauw, Vice President; Bob Giles, Secretary; and Engineering Open House Coordinator, Dick Volkstorf.

### NEW CURRICULUM GUIDE

The Engineering Technology Curriculum Advisory Committee has prepared and published a new guide to courses of training for associate-degree electronics technicians in two-year programs. Five hundred copies of the guide have been distributed to administrators and faculties of associate degree institutions and junior colleges, to state directors of vocational education, and to engineering colleges across the nation. The project was sponsored by the Illinois Board of Vocational Education for the benefit of technical institutes and junior colleges as a means of raising instructional standards in technology education. Prof. J.S. Dobrovolsky was the director of the project with Prof. R. J. Placek and Mr. D. C. O'Bryant as co-workers.

## UI-NSF INSTITUTES

Last summer Prof. Dobrovolny served as director of two summer institutes held at the Urbana campus of the University of Illinois.

One, the UI-NSF eight-week Summer Institute in Engineering Technology, was held for the fourth consecutive year under the support of the National Science Foundation. The primary purpose of the institute was to assist faculty members of post-high school technical curricula in extending and updating their subject matter competence. Courses were offered in electrical circuit analysis, in applied mathematics for circuit analysis, in statics and dynamics, and in applied mathematics for mechanical systems. Course content was adapted to the needs and interest of teachers or prospective teachers in engineering technology programs. Participants were limited in number to forty. They were divided into two groups, one studying Electronics Technology and the other studying Machine Design Technology.

The other, the Summer Program in Engineering Science, was presented for the fifth time. It was held for six weeks under the sponsorship of NSF and the Illinois branch of the Junior Engineering Technical Society. The purpose of the program was to increase interest in engineering and related sciences among the talented youth of our nation by providing academically stimulating experiences for the participants, and by emphasizing the need for science and mathematics as a background for successful careers in the engineering profession. The forty participants were limited to boys and girls with special proficiency in science and mathematics who were high school seniors last fall.

The National Science Foundation has notified Prof. Dobrovolny that it will

support these institutes under his direction again in the summer of 1965.

Presently (1964-65) a full academic year institute is being offered for fifteen teachers of electronics. A similar program has already been approved by NSF for sponsorship in the 1965-66 session. The next round, however, will be for fifteen teachers in machine design technology--a valuable contribution to balance in the engineering team. One of the major U.S. shortages has been that of well trained technicians with adequate backgrounds in science and mathematics. Here engineering colleges with strong faculties can make a major contribution through advisory and teacher-training leadership.

Local recognition of these values is represented by approval in progress for a B.S. degree program in the teaching of engineering technology, and a post-baccalaureate certificate in the same field. The GE Department has sponsored this development, led personally by Prof. Dobrovolny, whose foresight in the area has also been nationally accented.

## NEW REGISTRATION TECHNIQUES INCLUDE COMPUTERS

Most "alums" remember the long lines and haggling with tally clerks during registration each semester. Now Asst. Dean Howard L. Wakeland, reports that new methods of registration utilizing the capabilities of modern data-processing systems are rapidly replacing the old system.

The College looks forward to an early day now when mass registration procedures used in the past will be completely eliminated. Time and effort will then be saved both for students and staff, and several badly-needed days will be gained each semester.

**LEGAL STAFF CHANGES**

Among the legal eagles, a duty rotation. Harrison Streeter, who offered the GE 282 Patent Law course, has been given leave of absence to complete his doctoral program in Industrial Health Engineering at the University of Iowa, Iowa City.

To continue the course offering here, local attorney and alumnus Ray Kimpel has been recruited for the staff on a part-time basis. A 1950 UI graduate in Ceramic Engineering, Ray has done advanced work in ceramics research with Prof. Friedberg, and has had industry experience in research with Gladding-McBean, Glendale, California.

After receiving his law degree from the UI in 1953, Ray followed a long-time interest by serving as an examiner in the Patent Office, Washington, D.C. For the past three years he has been engaged in general and patent practice in Champaign with the firm of Summers, Watson, and Kimpel.

**NEW SECRETARY**

With Harrison to Iowa has gone Mrs. (Imie) Streeter, GE's hardworking and valued secretary for the past five years. To fill this demanding post, the Department welcomes Mrs. Clarence (Ethelmae) Hale. Ethelmae has been with the U. of I. for the past two years.

**DOBROVOLNY HEADS GOALS COMMITTEE**

The ASEE Engineering Graphics Division Goals of Engineering Education Study Committee has submitted a twelve page report on the need for graphics courses in engineering education. After discussion at the Mid-winter meeting of the Division, the conclusions have been adopted as a consensus of the graphics group. After defining goals of engineering education, the report considers and

answers on various phases such as guidance, methods of introducing economic considerations in engineering courses, refresher work for faculty members, and industry-education relations.

**NEW FACULTY MEMBERS**

Bolstering the GE ranks this year are three full-time additions to the GE teaching staff.

Menno DiLiberto, Instructor, comes to the Department after two years teaching at Ohio University and twelve years as a draftsman with various industries. He earned his B.A. and M.A. at Kent State University and is currently working on a doctorate here. Menno and wife Marilyn have a son, Sam, age seven. Menno's hobbies include music, handball, and an occasional do-it-yourself project.

Hugh M. Jackson, Instructor, a '57 graduate of UI, has taught with the Aero. and Astro. Engineering Department for four semesters, served as a flight instructor, and has had industrial experience with both Hughes and Douglas Aircraft Companies as well as locally with Magnavox. Hugh is working on his Ph.D. thesis in A.A.E. He and his wife, Sandi, have two sons, Hugh and Jeffrey, ages four and two, respectively.

To fill out any spare moments, Hugh is active with the Air National Guard, Springfield. For the past four years he has served as a pilot in the 170th Tactical Fighter Squadron.

Alan D. Krug, Graduate Assistant, received his B.S. in Mining Engineering here in June, '64. He is now teaching full-time after holding a part-time appointment last semester. In addition to GE 103, Alan offers GE 205, Applied Descriptive Geometry in Geological Problems. He is currently working on advanced degrees in Quantitative Economics.

### JETS AGAIN SEARCHES HIGH SCHOOLS FOR ENGINEERING APTITUDES

Are the high school students you know participating in the third national search for engineering aptitudes in pre-college students? The program, conducted by the Junior Engineering Technical Society, features a two-hour battery of tests which measure the participants abilities in understanding and using words, numbers and information. The tests will be given on January 15 and 16 throughout the nation.

Students taking the examination, for which there is a fee of \$2.50, will receive their scores and interpretations from the Psychological Corporation in New York, the test authors. The Illinois effort is coordinated by GE faculty member David R. Reyes-Guerra, State Director of JETS. Additional information may also be obtained from Fred Frisbie, Executive Director, JETS National Headquarters, 345 East 47th Street, New York City, 10017.

### ALUMNI LETTERS WELCOMED

The Department needs to hear from more alumni, and will appreciate notes of location or changes, interesting job assignments, promotions, or ideas for improved future training of general engineering students. Any length or form of letter is useful, and as many as possible will be acknowledged in the Newsletter for the benefit of all the alumni. So let's hear from you when something of note happens--and it need not be of earth-shaking note either!

### NEWSLETTER ALUMNI SURVEY

To help in gathering information about our alumni, please fill in and return the enclosed self-addressed and stamped postal card. This will take only a moment and will give us valuable data about you, which we can then publish and exchange.

### GE LEADER IN INSTITUTES

In terms of activity and grants, General Engineering is taking a nationally recognized position in summer and academic year special offerings for both instructor and high school groups. Emphasis has been placed on two areas: pre-college work for high-ability high school students, and post-baccalaureate training for teachers in technical institutes or junior colleges.

### CO-ED ENGINEERS

The co-ed engineers are still with us. In fact twenty-six girls registered as undergraduates in the College of Engineering this fall. Four are James Scholars, the top five per cent of entering students.

Of the three co-eds in General Engineering last spring, only two returned, Rebecca Bryar having transferred to Mathematics in LAS. Lois Backer now is Mrs. Louis O. Roberts, wife of a student in architecture. Despite her change in name, she expects to complete her degree in GE. Kay Lester is back, too, having earned ten credit hours in summer school at Northern Illinois University while working forty hours a week.... sounds like a summer!

Two girls entered General Engineering as freshmen this fall. Both are from the Chicago area, Sandra Ann Lenart from the city itself and Barbara Jolanta Morel from Evergreen Park. Sandra is one of the distaff James Scholars.

### FEBRUARY GRADUATES

These students will receive their Bachelor of Science Degrees in February, 1965:

Jeffrey David Dembo  
Peter Franklin Hays  
Roger Alan Larson  
Edward Leon Sabourin  
Robert Craig Smith  
Thomas Stuart Snow