

NEWSLETTER



DEPARTMENT OF GENERAL ENGINEERING

University of Illinois · Urbana, Illinois

Vol. IX, No. 1, November 1966

A COVER STORY - A GENERAL ENGINEERING ALUMNUS

We are quite proud that Consulting Engineer Magazine elected to do their July cover story about Mr. KENNETH W. HAMMING, '40, who became, on July 1st, a senior partner of Sargent & Lundy. He is only the seventh man to hold the post in the firm's 75-year history. In connection with the 75th anniversary Consulting Engineer devoted the entire feature article section to papers authored by members of the Sargent & Lundy staff including one by Mr. WILLIAM CHITTENDEN, '50, partner and head of the Nuclear Division.

Mr. HAMMING joined Sargent & Lundy in 1940 following his graduation with a B. S. in General Engineering. He was admitted to partnership in that firm in 1956 and became Manager of the Mechanical and Nuclear Department in 1964. The following year he became Director of Engineering. His avocations include music and sailing. He considered a career in music at one time. While he still has much love for music, he spends many a weekend with his family aboard his 32-foot cruising-racing sloop, "Onalee".

Mr. CHITTENDEN received his B.S. in General Engineering in 1950 and has also completed graduate nuclear studies at Northwestern University. He joined Sargent & Lundy in 1952, was appointed an associate in 1961, and became head of the Nuclear Division in 1963. During the current year he has been admitted to partnership. His article in the Consulting Engineer is titled "Organizing for Nuclear Power." x x x

STANLEY H. PIERCE, IN MEMORIUM

Many alumni and students will hear with heartfelt sorrow of the passing of Dean STANLEY H. PIERCE on 30 October, 1966 at Carle Memorial Hospital, Urbana. STAN, a member of our G. E. Department, had been ill for several months, fighting his affliction courageously, patiently, and steadfastly during that period.

Those of you who have attended the University as engineering students within the past 30 years will have fond memories of his dedicated service to his and our Alma Mater. He was revered as an educator, civic leader, husband, father and fellowman. In the words of Dean EVERITT, "...he was the most loved man on the campus."

We will miss STANLEY sorely, but at the same time we can draw strength from the life of a good man who was ever helpful, ever aware of his students and their problems, ever sensing and giving guidance and understanding, ever demonstrating the characteristics of true brotherhood.

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WHAT IS A GENERAL ENGINEER?

"What is a General Engineer?" Our Department faculty members hear this question from their colleagues, from recruiters visiting our campus, and especially from students. We believe that we in the Department have done a fairly good job of informing colleagues and recruiters concerning the nature of General Engineering. However, each year a

WHAT IS A GENERAL ENGINEER? (Cont'd)

new batch of freshmen arrive who have not heard of this curriculum when it might best serve their interests. As a consequence, some of these students transfer into the curriculum after being on the campus for a semester or two.

It would be very desirable if promising high school students could learn what General Engineering is prior to their arrival and at a time when such knowledge might better serve their interests. All readers of this Newsletter - students, alumni, and faculty - should participate in this activity.

Currently, both faculty members and students are participating in visitation programs in the high schools to provide information about the University, the College of Engineering, and the individual curricula. We are aware that a few of our alumni are also active in this endeavor but invite all of you who have been associated with General Engineering to answer the question, "What is a General Engineer?" In doing so you will be performing a real service in helping some fine young people find suitable careers.

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SALARIES TRIPLE IN TEN YEARS

The average salary paid General Engineers from the University of Illinois tripled in the ten year period between 1956 and 1966. During the same period the average for all engineering graduates from Illinois advanced 162% over their starting salaries. Our group of graduates is distinguished by the fact that among their number is the graduate with the highest salary and the one with the lowest.

The report from which this information was obtained for the College of Engineering was prepared in the office of Mrs. PAULINE V. CHAPMAN, Placement Director for the College of Engineering.

SALARIES (Cont'd)

Copies have been sent to those who responded to the questionnaires and a few additional copies remain for those who write for them. From our General Engineering group twenty-four of our graduates out of thirty-one responded to the questionnaire for a percentage of 77%, the highest response of any group in the College of Engineering. The average response for the college was 66%.

When our graduates began their careers in 1956, the average salary for the group was next to the lowest average for any group in the college. However, their percent of increase now places them third from the top. At the end of five years, in 1961, our graduates had received a salary increase amounting to 81.7% and they ranked second in the college for percentage of increase.

Of the twenty-four who responded to the questionnaire, twenty-two had obtained no advance degree and had average salaries of \$1181 per month, while two had obtained L.L.B. degrees for an average salary of \$1633.50 per month.

It is interesting to note that our students whose scholastic average was between 3.662 and 3.803 are receiving the highest average salaries followed by the group who received a grade point average between 4.135 and 4.408.

Our General Engineers seem to be fairly stable and satisfied with their employment experience. Six of these graduates have made no change of position, twelve of them have made one change of position, five two changes, and one three changes. Those who made no changes are receiving the highest average salaries from among these groups.

Fourteen of the 392 college-wide questionnaires returned indicated that the respondent was the principal owner of a business. Within this group are five civil engineers whose average salaries are \$1240, three general engineers with \$1839, and six mechanical engineers with \$1149 per month.

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CENTENNIAL YEAR GENERAL ENGINEERING
ALUMNI GET-TOGETHER

The Centennial Year of the University, February 28, 1967, through March 11, 1968, coincides with the 45th anniversary year of the General Engineering curriculum. Plans are being prepared for a G. E. alumni meeting in the Fall of 1967 on a football weekend.

Tentatively, we are thinking about a dinner for husbands and wives on Friday evening followed by a social gathering and conversation; Saturday, a meeting in the morning to exchange information and ideas about the current educational program, and the new G. E. Constituent Alumni Association; and then a luncheon before the game. The object of the get-together will be to have a good time renewing old acquaintances and making new ones. To make the occasion a success, a lot of you should come.

This weekend is to be sponsored by the Constituent Alumni Group and the department faculty. As the meeting is still in the planning stage, we invite all our readers to make suggestions regarding what they would find interesting on the program. x x x

DR. AYRE PERLBERG IS VISITING PROF.

AYRE PERLBERG is Visiting Associate Professor in the Department of General Engineering for the current academic year. DR. PERLBERG'S home is in Haifa, Israel. He received his baccalaureate and masters degrees from the Hebrew University, Jerusalem, in 1953 and 54. An M.A. was awarded at Columbia in 1955 and his Doctorate in Education was earned there, too, in 1958. The PERLBERGS, AYRE and CHAVA, and their two sons reside at 1956c Orchard Street, Urbana. We extend to AYRE and his family a hearty welcome and the hope for an enjoyable and profitable year with us. x x x

FORD FOUNDATION GRANT APPROVED

The Department of General Engineering's Development Program in Engineering Design Education has been approved by the Ford Foundation, funds have been made available, and action is underway in all G. E. design courses from Engineering Graphics I through Project Design (G.E. 242).

Recognizing a pressing need to fill the gap that has been developing over the past several years between the more sophisticated engineering science courses now taught and their application to practical engineering design, the Department instituted a study of the situation which resulted in the request for a grant as indicated above.

The Project Title is, "Development of an Engineering Education Program in Integrated Engineering Design Education." Its objective is to develop case studies based upon the involvement of the practicing design engineer that can be used to better educate the engineering student in engineering design, and to determine the feasibility of developing a graduate program in engineering design education.

The procedure being utilized to implement the practical side of the project is to bring to the campus selected practicing engineers to lecture on engineering design to the students, to consult with the staff in the preparation of case studies, and to send staff members to various companies to collect data for case studies.

Project director is our Department Head, and BERNT LARSON has the responsibility for departmental coordination. x x x

'67 ENGINEERING OPEN HOUSE

MARCH 10 and 11

DON'T FORGET!

BRING YOUR HIGH SCHOOL FRIENDS

Student Chairman: ARNIE BANDSTRA
Junior Chairman: DAVE WHITE

COEDS IN G. E.

Believe it or not! This fall there are more girls in General Engineering than in any other engineering curriculum. Although we lost KAY LESTER and LOIS ROBERTS by graduation last spring and ELIZABETH COLLETTE transferred to Mechanical Engineering, six, or 54%, of the eleven girls entering the College of Engineering this fall chose General Engineering. These girls, plus KAY EASH who returned for her sophomore year, make a total of seven, the largest number of coeds ever registered in G. E. x x x

STAFF MEMBER PROMOTES SAFETY

There has been a large number of motorcycle accidents in and around Champaign-Urbana this year. One of them was fatal and in three others the cyclist was seriously and permanently injured.

In an effort to start people thinking about cycle safety and to reduce the number of these accidents, EDWARD C. WAHL, Instructor in General Engineering, conducted a cycle safety campaign October 10-16. During the week Yamaha Sportland, of which Mr. WAHL is co-owner, provided a free inspection for cycles and riders. Points checked included the lights, horn, brakes, mufflers, wheels, chain, mirror, and helmet. If his machine passed inspection the cyclist was given a sticker and invited to participate in a safety parade on October 16. The parade was led by the September 1966 "Playboy" Playmate DIANNE CHANDLER.

To entice cycle owners to have their vehicles inspected, Mr. WAHL and Sportland sponsored a contest for University housing units, fraternities, and independent housing. Points were given on the number of cycles inspected, the safety points passed, and any protective equipment purchased for wear by riders. College Hall was the winner and received as its award an hour-long visit with Miss CHANDLER in its lounge and a year's subscription to Playboy magazine. x x x

ALUMNI VISITORS

The faculty has been delighted to see a number of our alumni which have been on campus this Fall season. Engineering placement responsibilities and the home football games have brought here several of our General Engineering graduates including the following:

MARVIN L. MRNKA, '59, is Sales Engineer with Powers Regulator Company, Skokie, Illinois, office and lives in Claredon Hills, Illinois.

GERALD V. SHEFFER, '49, is Branch Manager, Brush Instruments Division, at Oakbrook, Illinois and lives in Naperville.

HARRY D. HALLBERG, '46, lives in Wheaton, Illinois. He was here in the Navy ROTC Program and is a Plant Manager for U. S. Gypsum Co. He said that he found these Newsletters interesting, and that they stimulated his wish to visit the campus again.

EDWARD L. SABOURIN, '65, is working with the Chicago office of the General Electric Company. He left with us an interesting account of Bethlehem Steel's widely publicized Burns Harbor plant; in fact the cover page article includes his picture checking a 12,000-hp motor used in the plate mill. His home is in Cicero.

On homecoming weekend two of our alumni and their wives served as acting officers of our Constituent Alumni Association. Mr. and Mrs. DONALD E. LACROSS, '57, of Northbrook, Illinois, and Mr. and Mrs. JAMES F. GAFFNEY, '59, participated in Association activities, which included two workshop sessions, a recognition dinner, and a luncheon. DON is Manager, Mid-Western Sales, Elco Midwest and JIM is with the Rockford Works of J. I. Case Company, at Rockford, Illinois. Both JIM and DON plan to call on other of our alumni to encourage attendance at a General Engineering Constituent Alumni group meeting on the campus in

ALUMNI VISITORS (Cont'd)

the Fall of '67. Please see the article on preliminary plans for a G. E. Alumni get-together in the Fall of 1967.

We have heard from two other alumni recently: RICHARD A. NORBERG, '51, is with the Rockford Screw Products Co., Rockford, Illinois. ROSS A. DAHLBERG, '56, left his position as Senior Supervisor, Automatic Electric Laboratories, Northlake, Illinois in July and moved his family to Pittsford, New York as he has joined Xerox in Rochester. x x x

PROFESSOR STANLEY G. HALL RETIRES

Professor STANLEY G. HALL, better known to his countless friends as STAN, retired on 15 June 1966 after forty-four years of teaching. Few of us can or will top that for dedicated service to higher education.

He taught three years at the University of Maine before coming, in September 1925, to teach at the University of Illinois in the General Engineering Drawing Department, now the Department of General Engineering. The Illinois Technograph recognized his exceptional value as a teacher by giving him the Award for Effective Teaching, April, 1949.

In June, 1923, STAN was awarded the Bachelor of Science degree in Mechanical Engineering by the University of Maine. He earned the Master of Science degree in Theoretical and Applied Mechanics from the University of Illinois in June, 1930. During his undergraduate days at the University of Maine, he joined the social fraternity Sigma Phi Sigma and as an upper classman he was elected to membership in Tau Beta Pi, the national engineering honorary society.

STAN taught summer school at the University a number of years and worked in industry several summers. His employers included Fay and Scott Manufacturing Co., Dexter, Maine, the Maine State Highway Department, and Associated Engineers, Urbana. He is a registered professional

PROF. HALL RETIRES (Cont'd)

engineer in the State of Illinois and a member of the American Society for Engineering Education and the American Society of Mechanical Engineers. In recent years he collaborated in the preparation of a workbook, "Problems in Engineering Drawing and Geometry."

Outside of the University, STAN'S interests are community-wide. He is a very active Mason, holding membership in the Urbana Masonic Lodge, the Danville Consistory, and the Mohammed Shrine of Peoria. He has received the thirty-third degree of Scottish Rite Masonry. STAN and his wife KAY were active in the Urbana Town Club for twenty-five years from soon after its organization until last January. Both participate wholly in the affairs of the First United Presbyterian Church of Urbana. STAN has served as a trustee and elder of the church for many years. His other interests include golf and bowling.

Some ninety odd guests gathered to honor STAN at his retirement banquet last Spring and to pay tribute to his great career as a teacher and his stature as a friend.

Speakers at the dinner were Dean H. H. JORDAN, Professor Emeritus and Head of the General Engineering Drawing Department when Professor HALL came to the University; R. P. HOELSCHER, Professor Emeritus and Professor JORDAN'S successor as Head of the Department; Professor J. S. DOBROVOLNY, present Head of the Department of General Engineering; Brother LUTHER A. LOVINGFOSS, Right Worshipful District Deputy Grand Master from the Champaign Masonic Lodge; and Reverend GEORGE S. EASLEY of the First United Presbyterian Church of Urbana.

In behalf of the College of Engineering and the Department, JERRY DOBROVOLNY expressed thanks to STAN for his many years of dedicated teaching and the good wishes that follow him into retirement. The Department also presented gifts to STAN and KAY as expressions of esteem, remembrance, and friendship. x x x

CHALK TALK

We will be hard pressed to get down every faculty activity since our last outing with you but here goes.

JERRY S. DOBROVOLNY, Dept. Head has just returned from a "tanning" trip to Cocoa Beach, Florida where he attended a three-day National Clinic on improvements in teaching of engineering technology. As many of you may or may not know, JERRY is a consultant to the U.S. Office of Education which gets him to Washington, D.C. more than occasionally, the latest being this past June. He was in attendance, too, at the General Motors Conference for College and University Educators from July 6-15, on how GM utilizes engineers and scientists.

On the distaff side, Prof. GRACE WILSON designed and placed in operation an exhibit at McCormick Place, Chicago, in August, as a part of the National Electronics Conference. The exhibit's theme was Women in Engineering. Its success was evident from the fact that three specific requests from industry for women engineers were received right on the spot.

JOHN PEARSON has been certified as a Consulting Meteorologist by the American Meteorological Society. His certificate No.59 is indicative of the high qualification standards which must be met in order to be considered by the Society's Board of Certified Consulting Meteorologists. Included in the 60 consultants currently certified are a dozen or so from the academic field, practically all of the Chief Meteorologists of the nations leading airlines, and various industrial and governmental members. An elite group indeed! And a signal honor for JOHN and our Department.

Last summer JOHN became a member of the Technical Advisory Committee to The Illinois Air Pollution Control Board. He was elected chairman of that committee at its first meeting and continues to serve in that capacity.

WAYNE SHICK, Chairman of G.E. courses in Geometry for Architects, was awarded

an instructional development project which he carried out during the summer. His work centered on improvement of teaching materials and techniques for undergraduates and includes new methodology in the use of visual overhead projection. As work progressed it became apparent that the innovations being developed could be used to best advantage in the lecture hall. As a consequence, the scope of the project was expanded to include revision of the course structure from three quiz classes per week to one lecture and two quiz classes. In two sessions, WAYNE presents the lecture to all of the 250 freshmen who take Geometry for Architects; he actually works at the drafting table as he lectures and utilizes the new pedagogic materials that he has developed. His efforts have resulted in a more realistic and comprehensible manner of teaching for this difficult but essential piece of learning for the student of Architecture.

HARRISON STREETER has returned to the Department after an absence of two years at the University of Iowa to complete his doctoral program in Industrial Health Engineering. Welcome home HARRY.

Home, too, from his sabbatical in Italy is BOB BORRI. Last December BOB was awarded a National Science Foundation Science Faculty Fellowship for a period of six months to pursue scientific study in certain phases of the History and Philosophy of Engineering. BOB'S work should add significantly to the Depts. popular G. E. 220, the "History of Engineering."

DON RIMBEY is back to full-time teaching with the Department and expects to complete his doctoral dissertation by the end of this semester.

New members of the G.E. faculty include as instructors, UFFE HINDHEDE, W. D. MARTIN, W. E. STALLMAN, and LOUIS WOZNIAK; as assistants, P. C. KOHNKE, A. R. NESS, E. J. NIKSICH, S. B. PETROVICH, and W. W. ZIEL. x x x

SENIOR DESIGN, FALL '66 STYLE

This fall, for the first time, students in G.E. 242 were introduced to the "case study" method of teaching. Two case study problems were assigned for the purpose of exposing the students to problems and procedures of the practicing professional engineer. The students are then expected to apply to their projects what they have learned from these problems.

Five projects are being developed this fall. Two of them are continuations of projects started last year. WARREN L. LAYNG and RANDALL L. GRAFFIS are continuing the development of an automated library system which will remove a book from the shelf, deliver it to a central desk, and replace the book on the shelf in its proper location. WARREN and RAN are designing that part of the system which automatically removes the book from the shelf and delivers it to the desk.

Investigation of the U of I parking situation is being continued by LARRY L. BURGNER, WILLIE M. J. DEAN and JESS E W. BOEHLER. On the basis of early work done on this project last year, these men will determine the demand for parking and will choose the location for the facility. They will then decide the type and size of structure to be built. This decision will be governed by the results of their cost studies of the

different types and sizes of parking facilities.

GARY L. MARCUCCI, DENNIS J. CALLAHAN, and JAMES E. FREED are designing a miniature electric power unit capable of producing high output for a short duration. This unit will be designed for use in missiles.

The project initiated by JACK J. BAKKER and RICHARD J. COLVER is to determine the suitability of sawdust aggregate concrete as a building material. They will measure the density and test the compressive and tensile strength of a series of specimens composed of one part cement, one to three parts diatomaceous earth, and two to six parts of sawdust. Part of the problem is to design equipment to obtain standardized control of sawdust treatment, moisture content, and compaction.

ROBERT B. MARKEY and ROBERT M. SULLIVAN are designing a low-cost, portable log-splitter that will split previously cut logs of twelve-inch diameter and of eighteen-inch length into firewood suitable for the average size fireplace. The equipment must be so designed that one man can readily carry it into the field; it can retail for around \$150; and it will be faster than similar equipment now on the market at the proposed price.

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General Engineering Trust Fund

U. of I. FOUNDATION

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Urbana, Illinois, 61801

G. E. TRUST FUND INAUGURATED

The University of Illinois Foundation has agreed to establish a General Engineering Trust Fund. This fund is to be used for scholarships for our students and for any other purposes which will enhance the educational program of General Engineering. It will be administered under the supervision of the Advisory and the Executive Committees of the department.

While the income from conservative investment of the above amounts will not be sufficient to support a scholarship, it indicates the determination of the faculty to show faith in and support of the new fund. Now that it is started, we are sure that both faculty and alumni will want to provide additional contributions.

Remarkable support for the inauguration of the fund has been given by the present and emeritus faculty members. One hundred percent of the present full-time faculty members and 80% of the Graduate Assistants have made contributions or pledges during the past five weeks. At press time the faculty had contributed \$770.00 and pledged enough additional to bring the total to \$1300.00.

We have been concerned that there are no scholarships available for the fine General Engineering student group while there are several in other departments of the College of Engineering. We have an initial goal of about \$10,000 to provide an adequate income for our first scholarship. It is hoped that our alumni and faculty will support this new enterprise through both their current giving and their wills.

U. of I. FOUNDATION
General Engineering Trust Fund

I wish to make a contribution to the University of Illinois Foundation for the General Engineering Trust Fund as indicated below:

Total Gift	\$ _____	_____	(Name)
Amount Enclosed	\$ _____	_____	(Number and Street)
Balance Due _____	\$ _____	_____	(City) (State) (Zip)
(Date)			

Make your check payable to U. of I. Foundation (See reverse for address). All gifts are deductible for federal income tax purposes.