

NEWSLETTER



DEPARTMENT OF GENERAL ENGINEERING

University of Illinois · Urbana, Illinois

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GENERAL ENGINEER HONORED

HERBERT R. LISSNER, G.E. '30, was one of the four College of Engineering alumni honored at the First Annual Awards Dinner and Convocation given by the Dean of our College of Engineering, W.L. EVERITT, in the late spring of 1965. In addition to his selection for an award, Professor LISSNER was chosen to give the convocation address titled, "The Developing Field of Bioengineering." Following receipt of his Bachelor's degree in General Engineering, HERBERT R. LISSNER earned the degree of Master of Science in Theoretical and Applied Mechanics in 1934. Until his death, which occurred about three weeks after the convocation, he was Chairman of the Department of Engineering Mechanics, and Coordinator, Biomechanics Research Center, Wayne State University, Detroit, Michigan.

The Convocation Program included the following biographical information: "Professor Lissner is an internationally recognized authority in the field of biomechanics. Commencing with his pioneering studies about twenty-five years ago, he has published about sixty papers and books. These publications have become the most important source of knowledge on the behavior of the skeletal structure of the human body when its various parts are subjected to impact forces that cause fracture of the bones or damage to nerve or muscle tissue. From his test results, Professor Lissner and his associates have developed theories for the strength and deformational behavior of the bone and nerve tissue structure of the human body. Of special significance is the fact that Professor Lissner's first research in biomechanics

was published in the Journal of Neurosurgery, 1:6 (1944), and almost all subsequent papers were also published in this or other medical journals. Prof. Lissner has thus made a truly outstanding use of his engineering skill in contributing much needed knowledge to the annals of the medical literature."

The undergraduate student body, the faculty, and the alumni of the General Engineering Department are proud of our distinguished alumnus, but saddened by his untimely death.

G.E. STUDENT AWARDS

Prof. B.O. LARSON announced the 1965 winners of the H.L. Marcus-L.B. Phillips and the Edward S. Fraser awards at the Student-Faculty dinner last May. GERALD R. SCHOONHOVEN received the Marcus-Phillips award in recognition of his extracurricular services to the Star Course, the Illini Union, the Marching Illini and Concert Bands, his social fraternity and the Interfraternity Council while maintaining an all-university average of 4.114.

The Edward S. Fraser award, which is given primarily in acknowledgment of scholastic achievement, was conferred upon WILLIAM T. FRASER, the donor's son. BILL's all-university average of 4.924 is an outstanding record for future G.E.'s to shoot at.

Each recipient had his name inscribed on a plaque placed in the Transportation Building and received a miniature plaque for use in his office or home and a check for \$100.

COEDS IN G.E.

Of the thirty-four girls registered as undergraduates in the College of Engineering this fall, nine of them are in G.E. Four of the girls are freshmen, two are sophomores, one is a junior, and two are seniors. LOIS BACKER ROBERTS and KAY LESTER are our two seniors. You men of '65 will remember KAY as the only engineer among the candidates for Queen of St. Pat's Ball last March. In addition to receiving this honor KAY carved a place on the Dean's List for last semester.

G.E.'S ACTIVE IN ENGINEERING AFFAIRS

Students in General Engineering do not limit their activities to those of their own department. They comprise 13% of the membership of the student section of the Illinois Society of Professional Engineers and RON MORRISON, G. E. '67, is Vice President of the organization. Another G. E., KAY LESTER '66, is President of the student section of the Society of Women Engineers. KAY, whose secondary field is Engineering Publications, is also Corresponding Secretary for Engineering Council and a student member of the College Library Committee. Another student member of the Library Committee is MIKE HORA, G.E. '66. MIKE is Treasurer of Engineering Council too.

GAMMA EPSILON

Three G.E. students with Business Administration as their secondary field are new officers in Gamma Epsilon, the department's honorary society. They are: BOB GILES, Marion, senior, President; JIM FREED, Rockford, senior, Secretary; TERRY BRADLEY, Sheffield, junior, Treasurer.

MIKE WYFFELS, the Vice President from Geneseo, is a senior taking management as his secondary field prior to going on to Law School. Gamma Epsilon joined ISGE for the first student-faculty get-together, a picnic held at the Illini Grove on October 14, followed by a game

of touch football pitting the faculty against the students. Guess who won. You guessed right.

I.S.G.E.

JEFF WILLETT, the new President, is from Danville. JACK BROWN, the Vice President, is from Viola. The Treasurer is TERRY BRADLEY, the only junior among the officers. TERRY is from Sheffield. JEFF, JACK, and TERRY have chosen Business Administration as their secondary field. DON JOHNSTON, from Alpha, who chose journalism for his secondary field, is the new Secretary.

I.S.G.E. held its first regular meeting of the year, apart from the joint picnic with GE, on October 20. RUSSELL J. HURLIMAN, G. E. '60, an engineer with FMC at Hoopston, spoke on his work in developing a new "Cucumber Harvester."

SENIOR DESIGN PROJECTS

Students in G. E. 242 are working on a number of interesting and varied projects. RICHARD VOLKSTORF proposes to design an automotive-type internal combustion engine with four cylinders, 150 brake horsepower, a maximum operating speed of 5000 RPM, and a brake mean effective pressure of 135 psi.

Another project results from the traffic situation and parking problem at the university. JACK BROWN, BOB GILES, and RANDALL MORRISON plan to conduct an investigation concerning a multi-level parking structure to supplement the existent, but inadequate, parking lots.

DAVID T. KOCH will explore the feasibility of using automatic, numerically controlled machining centers to replace the conventional machines on a miscellaneous small parts machining line. RICHARD M. WETZEL hopes to design and construct an instrument which will practically, dependably and accurately determine nonlinear strains. Development of a Sharpness Test to be applied to razor blades or other instruments is the

problem of ROBERT NAROWSKI and STEVEN JONAS. The team of JAMES J. WILLETT and ROLAND B. WILSON will inquire into the possible use of a concrete shell less than 1 inch thick as a safe and economically practicable structure to house a theater, sports arena, store, etc.

Two teams consisting of KEN GEHRKE, BRUCE SAMLAN and RAY MILLER on one and JOHN R. WEIBEL and JOHN J. CRISEN on the other are undertaking the planning of a new building and mechanical equipment for an auto-repair shop owned and operated by a local businessman.

THOMAS KNIGHT, DAVID COOK, and ROBERT MANNING hope to develop an electronic device which will help reduce the number of accidents occurring on the highways as automobiles pass each other. The device will take into account the distance and approaching speed of an oncoming vehicle and so translate this information that it will definitely indicate to the driver whether he can safely pass the car ahead.

DONALD B. JOHNSTON, DENNIS A. RATHJE, and SVETOZA PETROVICH plan to design a "Radius-ing" tool which will round to a radius of about 1/8 inch all exposed corners of beams and girders used in bridge construction in the State of Michigan. MIKE HORA's project is to design an economic, automated weight shifter to replace the weight shifter on the Mold Blowmatic installation and to formulate and process all plans necessary for the installation of the system.

FACULTY A GO-GO

JERRY S. DOBROVOLNY, Head of our Department, spoke to a national meeting on technical education in Chicago on Oct. 6. He stressed the importance and timeliness of the newly created U. of I. Bachelor of Science Program in the Teaching of Engineering Technology. The new program is a result of experience gained from the five summer institutes and academic year institutes sponsored by the National Science Foundation and held

at the U. of I. over the past several years. He also reported on these latter activities.

Earlier, in July, JERRY attended a Technical Drawing Associates Conference in Pittsburgh and was elected to the Executive Committee of that organization. He is the only educator currently a member of that board.

In August, JOHN E. PEARSON, a member of our department since '39, gave a paper before the Commission on Atmospheric Chemistry and Radioactivity of the International Association of Meteorology and Atmospheric Physics. The meeting, held at Visby on the Island of Gotland, Sweden, was attended by representatives from nineteen countries including Russia and several of the Iron Curtain countries. JOHN's paper was titled, "Soil Concentrations of 'Emanating Radium-226' and the Emanation of Radon-222 from Soils and Plants." The report summarized research accomplished within the G.E. department during the past three years.

In addition, JOHN was elected Technical Committee Chairman of the Air Pollution Central Association at their Toronto meeting in June, and has organized a new all-university seminar on air pollution problems. Seventeen faculty members from fourteen departments on the Urbana and Chicago Medical Center campuses are participating.

MAURICE G. PORTER, who is a Lt. Colonel, was one of thirty-seven U.S. Army Reserve Officers selected to attend the National Defense Strategy Seminar at the National War College, Washington, D.C., from June 19 to July 2. On July 3 he reported to Fort Sheridan, Illinois, where he taught in the counter-intelligence department of the Fifth Army Area Intelligence Training School until August 8. MAURICE was on active duty at Fifth Army Headquarters in Chicago from August 10 to 22. As a civilian, he participated in the Illinois State Bar Association tour of Germany and the British Isles between September 1 and 26.

The General Engineering Department wives group entertained at a reception for new members in late September in the Illini Union Faculty Lounge and everyone had a chance to get acquainted, and re-acquainted. JERRY and JOAN DOBROVOLNY hosted the gathering and we were privileged to meet and talk with Dean and Mrs. WILLIAM EVERITT, Prof. Emeritus and Mrs. RANDOLPH P. HOELSCHER, Associate Dean and Mrs. STANLEY H. PIERCE, Assistant Dean and Mrs. D. R. OPPERMAN, Assistant Dean and Mrs. H. L. WAKELAND, and Mrs. F. M. PORTER.

College of Engineering faculty promotions include our own WILLIAM F. BERKOW from Assistant Professor to Associate Professor. BILL, incidentally, is conducting a highly intriguing seminar in connection with G. E. 281 - Engineering Influence on Business Decisions, for seniors in accounting, business administration, and marketing, and G.E. 288 - Economic Aspects of Engineering, for engineering seniors. In the latter weeks of these courses he forms "corporate policy-making teams" composed of students from both courses. Then, as the "corporate president," BILL throws his "corporate officers" tough but typical industrial type problems for their joint solution. Needless to say both the technically grounded and the commercially grounded student gains understanding and sympathy for the problems of their future business colleagues.

The G. E. faculty has been augmented by several new members this fall. PAUL W. STEINBECK returns to the department after a three-year stint on the Physical Plant Director's staff and is knee deep in G.E. 220. PAUL will be remembered as being on the G. E. staff from 1959-1962. His son John is a C.E. senior. BRUCE M. HANNON, B.S., U. of I., 1956, has returned for a doctorate in Engineering Mechanics after nine years with U. S. Industrial Chemical Company at Tuscola. BRUCE has five years' experience in mechanical research and development and will continue his association with the Chemical Industry as a consultant while studying and teaching. He has spoken recently to

Engineers of the U.S. Industrial Chemical Company, Houston, Texas, on his latest theories for the elastic and fatigue behavior of thick walled cylinders and to the American Institute of Chemical Engineers' meeting in October on high pressure technology. The HANNONS live with four future G. E.'s in Ivesdale, Illinois. WALTER H. MILLER, B.S., U. of I., 1948, is working toward his Master's in C.E. while carrying on his teaching in the G.E. Department. WALT hails from Evanston, Illinois, and previously was with the State of Illinois Highway Department as a Civil Engineer. He also has worked in the construction industry and in the sales engineering field of construction oriented products. ROBERT W. DALRYMPLE, B.S., U. of I., 1938, has retired from active service with the United States Army as a Colonel in the Army Corps of Engineers. BOB has served in a variety of assignments during his military career and more recently was a member of the faculty of the Army War College at Carlisle Barracks, Pennsylvania. In September, Colonel DALRYMPLE was awarded the Army's Legion of Merit Medal at a ceremony attended by University President DAVID D. HENRY; WILLIAM L. EVERITT, Dean of the College of Engineering; and JERRY S. DOBROVOLNY. The medal was given for his work in improving the logistics of the Army and improving its combat preparedness. He will be associated with G.E. 220 and 103. The DALRYMPLES have three children, including a married daughter in New York City.

DAVID R. REYES-GUERRA attended the Engineering Foundation Research Conference on "Engineering Design to Fit the Environment" held at Proctor Academy in Andover, New Hampshire, recently. Sixty-six engineers gathered there to study the engineer's role in dealing with the environment, to locate gaps in the engineer's knowledge, and to suggest ways to fill the gaps.

DONALD H. RIMBEY is enjoying a year at the U. of I. as a Science Faculty Fellow sponsored by the National Science Foundation.

RONALD PLACEK is busy with his new textbook on mathematics which he expects to be published in about a year.

HOWARD NELSON's second problems book, to accompany his highly successful text on graphics for secondary schools, is now in the hands of the publisher.

Two very different papers were presented by ROBERT BORRI this past spring. One on "Leonardo da Vinci," was given before the Midwest Junta's Annual Meeting of the History of Science Society at Oklahoma State University. The other, titled "An Interdisciplinary Approach to Improving the Teaching of Science," was read at the 58th Annual Meeting of the Illinois State Academy of Science held at Northern Illinois State University.

BOB also contributed the cover article, "Models for Teaching Engineering Graphics and for Use in Industry," in the May issue of Graphic Science. He is off to Europe with Mrs. Borri next spring for a sabbatical, traveling and doing research on Engineering History.

Our "man in Washington" last summer was ROBERT A. JEWETT of G. E. 220 fame. BOB is trying to "Unravel the Puzzle" of the First American Rail Beam, 1849-1854, and his research has led to the correction of a Smithsonian Institute exhibit's data. You can read his work in a future winter issue of Technology and Culture.

FRED SPALDING has been more than active in the field of drafting standards. He was in Washington, D.C., for a meeting sponsored by the Department of Defense to develop new standards and specifications for military use, and also participated in a joint industry-military standards committee meeting in New York City on dimensioning and tolerancing of engineering drawings.

In October FRED read his paper titled "Development of Standards for Dimensioning and Tolerancing" at a meeting of the Chicago Section of the Standard Engineers Society.

E. D. EBERT is now Chairman of the University's Subcommittee A on Undergraduate Student Discipline. He and Asst. Dean OPPERMAN, former G.E. faculty member, were in Pittsburgh for a spring meeting of the Cooperative Education Association.

DONALD SCHECK again worked during the summer as Manufacturing Systems Consultant in the Large Steam Turbine Dept. of the General Electric Company, Schenectady, New York.

MONTE PHILLIPS helped with the Highway Technicians Program sponsored by the Illinois Division of Highways on the Urbana Campus by presenting a course in Engineering Materials. He and his family then took to the north woods, North Dakota that is, for a reunion with relatives.

ALUMNI NEWS

Many of our alumni who are well acquainted with PAULINE CHAPMAN will be happy to know that she has been honored by Dean W. L. EVERITT and the University by promotion to the faculty of the College of Engineering as the Director of Placement.

Since his retirement from Union Carbide Corporation in 1962, CLAIRE W. GOODMAN, '25, has lived at Port Monmouth, New Jersey. Retirement at the age of 60 terminated a career in purchasing and administration. GOODMAN included an item of advice, "Commence early retirement so as to enjoy the fruits of your efforts."

CLYDE E. GILLER, '30, is a Personnel Engineer, Chicago area Engineering Department, Illinois Bell Telephone Company. His type of work is "technical force requirements, etc." He has two daughters with degrees from the University of Illinois and two granddaughters, ages 4 and 1.

In Phoenix, Arizona, EDMUND A. LODGE, '34, is Manager of power production for the Arizona Public Service Company, an investor-owned utility.

President of his own firm is WILLIAM P. CLARK, '34, of Racine, Wisconsin. He lists his type of work as sales engineer-selling O.E.M. items to industrial users and selling parts made to customer's blueprints.

A project engineer for Westinghouse Electric International Co., living at Ridgewood, New Jersey, HERBERT H. MITCHELL, '37, is in charge of project contracts for overseas power plants. His last project was three 75-MW units in Tiajuana, Mexico, and currently he is responsible for a steam power plant, four 75-MW units, being built in India.

Technical applications of explosives and customer service is the job description for MELVIN E. EILERS, '39, who lives in Terre Haute, Indiana. EILERS, whose title is Manager, Technical Services, is employed by the Explosives Division, U.S. Powder Company, Division of Commercial Solvents Corporation.

DONALD L. FAULL, '41, President and owner of D. L. Faull and Associates at Santa Rosa, California, wrote a fascinating letter describing his work. Before military service he was general superintendent for several large construction companies. After serving in Naval Air during World War II, he organized a construction business at Santa Rosa, specializing in schools, hospitals, churches, commercial and Industrial Buildings. In recent years his major activity has been sales, development, and appraisal work.

Deputy Manager, Saturn V Program, NASA, Marshall Space Flight Center, is JAMES B. BRAMLET, '43, who lives at Huntsville, Alabama, and lists his type of work as "management of development effort."

JOSEPH P. CICCARELLI, '45, is plant engineer for the Owens-Illinois Glass Co., Streator. JOE is Head of Plant Maintenance and Engineering.

Notice has been received from Caterpillar Tractor Co. of a significant promotion for alumnus CLANCY TOHN, G.E., '47, to Plant Engineer at Peoria. CLANCY

joined the Company in the College Graduate Training Program and held several positions in Plant Engineering before becoming Utilities Manager in 1958.

President of the Capitol Packaging Company in Melrose Park, Illinois, is NORMAN WEINER of the class of '48. Their specialty is aerosol packaging.

WILLIAM B. BIERBAUM, '50, is in charge of administration of the College Union with the title of Director, University of New Mexico. In addition he is the Association of College Union's representative to the National Association of Physical Plant Administrators.

Living in Naperville, Illinois, WILLIAM J. MCGONAGIL, '50, is National Manager, Machinery Division, Joseph T. Ryerson and Son, and an MBA candidate at the University of Chicago Executive Program.

Letters have arrived recently from W. C. HILDENSTEIN and DICK NORBERG, both '52. W. C. is Vice President of Artex Art Textile Corp., which produces institutional table linens. He asks about classmates GRIFFIN, HAMRACK, or others in his Highland, Illinois, area. DICK NORBERG is with the Rockford Screw Products Co., Rockford, Illinois. He expressed his satisfaction with the G.E. curriculum.

Another GE alumnus with an interesting and space-sighted job is WILLIAM HUBER, '53. Technical Supervisor of post-Saturn systems at NASA's Huntsville, Alabama, center, he heads a team of experts determining what type of launch vehicle should be built for the '70's and later. His group is also concerned with means of recovering expensive first-stage units now lost. From the UI, BILL went to the Air Force Institute of Technology for advanced training, received his Master's degree in 1955. He then entered the Army Ballistic Missile Agency and the Saturn I program. Presently he is serving as Assistant to the Director of Future Projects at the Marshall Space Flight Center.

Electronic Digital Computers claim the attention of ROBERT L. ERDMAN, '57, in St. Paul, Minnesota. ERDMAN is Product Manager for Peripheral Equipment, Control Data Corporation.

A note from J. R. (JACK) MARCHETTI, '58, indicates that he is District Manager for Sangamo Electric Co., Springfield, Illinois, and is in the process of completing his Professional Engineer's certificate.

In the spring, JERRY S. DOBROVOLNY, '43, Head of our Department, received a nice letter from JOHN R. GREEN, JR., '60. GREEN is Quality Control Manager of Hamtramck Foundry of the Chrysler Corporation. About a year after graduation he married Audree Cassens, Commerce, '60, and they have a year old daughter named Stephanie. GREEN earned his Master's degree in Business Administration at Wayne State University as part of a Management Training Program. We congratulate him on his selection by Chrysler and M.I.T. as a 1965 Sloan Fellow. Under this program large corporations send executives with full salary and expenses to M.I.T. for a year of study leading to a Master's degree in Industrial Management at the Sloan Institute. Coupled with the academic program are weekly seminars with business and government leaders, and field trips to Washington,

D. C., New York, and Europe. GREEN expects this to be a most rewarding year for him and his wife.

Operating out of Houston, Texas, WILLIAM E. GOSSETT, '61, serves as Sales Engineer, Carbon Products Division, Union Carbide Corporation. His work in sales and technical service covers a five-state territory.

Recent GE graduates and speakers at Illinois Society of General Engineers meetings were SAM LEEPER, '63, Assistant Director of Personnel for Eli Lilly, and Professor LEON RICHARTZ, '59. Both discussed aspects of the Master of Business Administration Program at the U. of I.

CONSTANCE MAYER, G. E. '63, is pioneering as the first woman engineer employed by the Teletype Corporation. She writes that she is working in Quality Control, which has motivated her to take a night course in Statistics. In addition, CONNIE is scheduled to be a student in the Teletype Repair School, and is considering the possibility of entering the MBA program at Northwestern University.

Alumni, your notes, letters, and visits provide the information we need for our alumni news section. Please let us hear from you.

JOIN

UNIVERSITY OF ILLINOIS ALUMNI ASSOCIATION AND
GENERAL ENGINEERING CONSTITUENT GROUP

Please see Page 8.

OUR OWN ALUMNI ASSOCIATION

A General Engineering Constituent Alumni Association has been formed within the University of Illinois Alumni Association. The object of the new group is substantially the same as that of the parent organization, i.e., "It shall be the object of this Association to promote the general welfare of the University of Illinois...as an educational agency and to encourage and stimulate interest of students, former students and others in the University in order to promote more effectively the programs and progress of the University and its related organizations. The objects of this Association shall be exclusively educational and charitable."

A number of our graduates who were contacted last spring promptly responded when we invited them to sign a petition for the organization of a constituent group. An overwhelming majority were in favor of the proposal. The petition for the organization was then presented and subsequently approved.

By joining the U. of I. Alumni Association you are making possible this Newsletter, since for every \$7 membership received by the Association, \$2 are contributed by that Association to our General Engineering group. It is hoped that as funds become available, services to our alumni can be expanded. With 1325 living alumni on our list, publication and mailing costs for the General Engineering Newsletter have become sizable. The new organization will help underwrite the expenses at no additional cost to our alumni.

If you have not joined our University of Illinois Alumni organization, we hope that you will do so soon, thereby making possible improvement of the Association and of the services of the General Engineering constituent group to you. For your convenience an application form is printed below:

Please fill in completely and return with your check for membership to:

UNIVERSITY OF ILLINOIS ALUMNI ASSOCIATION AND
GENERAL ENGINEERING CONSTITUENT GROUP

227 Illini Union Urbana, Illinois - 61803

Single membership
(for one year) \$7

Family membership
(husband & wife) \$8

NAME _____

ADDRESS _____

COLLEGE _____ MAJOR _____ YEAR OF DEGREE _____

Make check payable to University of Illinois Alumni Association