



NEWSLETTER

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DEPARTMENT OF GENERAL ENGINEERING

University of Illinois · Urbana, Illinois

RETURNING G. E. ALUMNI ENCOURAGE DEPARTMENT

As part of the University's Centennial Celebration, the G.E. Constituent Alumni Group held its first annual meeting on November 3 and 4. An alumni-faculty dinner was served Friday evening, providing good fellowship, delicious food, and a historical sketch of the Department by ROBERT W. DALRYMPLE. The Saturday morning session included election of officers, a review of the objectives of the alumni group, a summary of the present and future of the G.E. curriculum, and comments by each alumnus. Activities were concluded with a luncheon and adjournment to the Illinois-Purdue football game.

Dean DAVID OPPERMAN reported that today's freshmen enter with twice as much preparation and much higher class standing than was the case ten years ago. The percentage of entering freshmen who graduate in engineering has not increased, however. A recent added problem is that limited facilities and budgets now restrict the number of students that can be accepted.

Professor JERRY S. DOBROVOLNY, Department Head, reviewed changes in curriculum, especially the addition of the interdisciplinary project-design sequence. He noted that recent G.E. graduates had almost doubled their starting salaries in five years, equaling leaders in all curricula.



Among alumni attending the meeting were, left to right: seated, Jeff Dembo, Doyle Wilhite, James Gaffney, John Raffl, Phil Deckowitz, Ray Miller; standing, Jerry S. Dobrovoly, Robert Dalrymple, William Shive, Leon Lindley, and Ray DePauw.



Officers of the new alumni group are, left to right: seated, president James Gaffney, '59, Rockford; vice president Jeff Dembo, '65, Highland Park; center, treasurer Doyle Wilhite, '57, Webster Groves, Mo.; standing, secretary Robert Dalrymple, '38, Urbana; Newsletter editor John Pearson, Champaign; and Head of Department Jerry S. Dobrovoly, '43.

Professor BERT LARSON summarized the teaching improvement program in the Department, supported by the Ford Foundation. This includes the use of case studies and bringing engineers from industry to act as consultants for the seniors in project design courses.

The functions that challenge the G.E. alumni are: publicizing the utility and advantages of the curriculum, increasing active cooperation with industry, suggesting improvements in and support of the Department's activities, and stimulating increases in enrollment.

Those alumni present for the week-end were few in number but articulate in their support and ideas concerning the future of both the alumni group and the G.E. curriculum. Each agreed to serve as a communication link between the Department and other alumni back home, all of whom are invited to express their opinions and to encourage high school students in entering the profession. Remember, YOU are the best advertisement for the G.E. Department.

IMAGINATIVE SENIOR DESIGN PROJECTS

RICHARD PURMAL is developing an "Automated Shoring Program for the Concrete Construction Industry." He is analyzing the structural elements of providing form work for casting floor slabs of buildings: concrete, timber, and steel, with economic comparisons and physical layouts. He hopes to achieve improved modular units adaptable to computer calculation.

Design of an armored vehicle whose tracks can negotiate soft terrain is the project of MARTIN BAILEY, JOHN WETTER, and JOHN QUIRIN. Because loadings per square foot control ability to travel in swampy areas, the vehicle contemplated is totally contained within an oval track consisting of three parallel loops instead of the usual two. The central "foot" is retracted when not in use.

PAUL SAHLIN is developing a procedure for loading and unloading freight from wide-track trains using an overhead crane (cont'd on page 3)

GAMMA EPSILON

The Society's major project for this year is continuation of the evaluation committee to provide constructive student criticisms of G. E. courses and instructors. Twelve upperclassmen were welcomed as new members: Arthur Blomberg, Joel Fitzjarrald, John Gilster, Joel Herning, Andrew Kargalos, Phillip Kasik, Paul Litherland, Leland Meinhart, George Pagels, Stuart Wilkening, Paul Witort, and Robert Zumstein.

FACULTY FEATURES

CARL EDSTROM: In the Congo last summer carrying out plans for a new university. Despite delays due to political unrest, he reports successful accomplishment of his project.

MICHAEL PLECK: Anyone attending the Engineering Graphics Articulation Conference held on the Urbana campus last April was privileged to hear MIKE present an excellent paper entitled "Computer Graphics on the IBM 7094/CALCOMP Plotter System at the University of Illinois." JOHN HIPSKIND presented "Case Studies in Engineering Graphics." ED EBERT served as Chairman and general moderator of the various sessions.

MORRIS SCHEINMAN: Attended the ASME Design Engineering Conference in New York City and in July attended the Fourth National Conference on Engineering Design at Dartmouth.

JERRY DOBROVOLNY: May 17--Oct. 19 participated in the following: Consultant's Workshop on Civil Technology sponsored by the American Association of Junior Colleges; American Technical Education Association Board of Trustees Meeting; Nationally selected Faculty Day at Trane Co.; Planning meeting for ASEE Engineering Graphics Summer School; ASEE Annual Convention--Trea-

surer, Technical Institute Division; McGraw-Hill Co., to discuss the feasibility of multi-media approach to instruction in Engineering Graphics at high school level; Consultant's presentation to U. S. Office of Education Summer Institute; visited Tufts University at Boston; attended the Annual Conference on Engineering Design Education at Dartmouth; presentation at the University of Connecticut on Technical Teacher Education; participant in National Vocational and Technical Teacher Institute, University of Tennessee; lecturer at USOE Seminar on "New Approaches in the Professional Education of Vocational and Technical Teachers"; attended dedication of James Connally Technical Institute at Waco with Governor Connally and President Johnson; and member of the Executive Committee of the Technical Drawing Associates Meeting at Pittsburgh.

DAVID O'BRYANT: Participated in the Technical Drawing Associates Meeting in Pittsburgh and taught in the Summer Highway Technical Program. DAVE is currently Second Vice-President of ISPE.

GRACE WILSON: Attended the Annual Meeting of the Society of Women Engineers, Washington, in June and the Second International Conference of Women Engineers and Scientists at Cambridge, England, July 1-8.

BERNT LARSON: Made various trips around the country on behalf of JETS and the improvement of the G.E. integrated engineering design sequence. BERNT and BILL BERKOW have been responsible for obtaining the services of outstanding industrial representatives to participate in the design sequence. They were able to get Continental Can Co. representatives ROBERT F. WINDSTRUP and WILLIAM D. BOBCO to participate as consultant members of industry once each week this semester.

FRED SPALDING: Again traveled extensively in connection with the Y-14 Standards Committee of the United States of America Standards Institute and the Standards Engineering Association.

G. E. Staff Changes

Professor: ROBERT JEWETT Asst. Professor: LOUIS WOZNIAK; RON PLACEK: on year's leave of absence under a Ford Foundation Internship Grant with the General Electric Co., Schenectady, N.Y. Instructors: PAUL DANNER, GEORGE EGGEMAN, AL KRUG, LEGRAND MALANY, JOHN SCHLAFFER, ED WAHL Senior Assistant: RICHARD SALOGGA Assistants: LANCE BOICHOT, JOHN DICKINSON, THOMAS GROSZCZYK, TONIS MANG, GARY MARCUCCI, RONALD MASS, CHARLES MEYERS Research Assistants: KAREL PUFFER, BRUCE ROSENBERG, JAMES SKIERSKI.

Ph.D. Candidates Complete Preliminary Exams

BRUCE HANNON, T.A.M., Theory of Shells; AL KRUG, Econ., Operations Research; MONTE PHILLIPS, C.E., Soil Mechanics; MIKE PLECK, M.E., Metal Cutting Plasticity; JOHN SCHLAFFER, T.A.M., Mathematical Theory of Plasticity.

PROFESSOR HOWARD C. NELSON RETIRES

The Department honored Prof. HOWARD NELSON at a retirement banquet in May ending a 47-year teaching career.

Born in Hollowayville, Ill., HOWARD attended Normal, received a B.S. from the University of Wisconsin, and an M.S. from the U. of I.

His first year of teaching was done at the Clinton Community High School where he met a fellow teacher, ESTHER WEILER, who was to become Mrs. Nelson. For the next five years he taught industrial arts at the LaSalle-Peru-Oglesby High School. The next 20 years were spent at Monmouth College. After World War II, when the U. of I. opened the Galesburg Branch, HOWARD was appointed Head of the General Engineering Drawing Department. He then came to the Urbana campus where for the past 18 years he has been teaching graphics in the General Engineering Department.

HOWARD has served as Chairman of the Models Committee, been active in many professional organizations, written numerous articles, and authored five books on drafting and woodworking.

He is presently serving this Department as Emeritus Professor on a two-thirds time basis.

G.E. DEPARTMENT HAS NEW DOCTOR OF PHILOSOPHY

LOUIS WOZNIAK, Assistant Professor in G.E., received his Ph.D. in Electrical Engineering. His thesis project, in cooperation with the Woodward Governor Company of Rockford, was "Hydroelectric System Analysis and Speed Control Optimization."

LOUIS received a B.S. in M.E. from Illinois, achieving Bronze Tablet standing, and an M.S. in 1963 for studies in electrical controls.

Born in Italy, LOUIS came to the U. S. when he was 13 years old and settled in Benton, Ill., where he graduated from high school in 1957.

LOUIS, his wife, JO ANN, and their son live at Lincoln Park, Urbana, where they operate a mobile home business. LOUIS plans to continue his teaching in the G. E. Department.

ILLINOIS SOCIETY OF PROFESSIONAL ENGINEERS

STUDENT CHAPTER - Alpha 10

The October meeting of ISPE featured P. D. LATTNER, P.E., Bell Telephone Co., Chicago, giving an illustrated talk about lasers which included a working demonstration. About 90 students attended, including five co-eds.

G. E. officers of the Chapter are: PAUL WITORT, veep, and EARL MOLDOVAN, public relations committee chairman.

SENIOR DESIGN PROJECTS (cont'd)

system to remove the load from the car and transfer it to a special area in a systematic manner. He will design both the setup of the crane and the layout of the yard for handling the freight.

PHILLIP M. KASIK is working on a problem for his vacation employer. His project is to redesign an existing derrick which, in operation, has a normal capacity of 150 tons at a radius of 52 feet. The remodeled derrick will have a normal operating capacity of at least 150 tons within a maximum radius of 75 feet and a minimum radius of 35 feet.

The design team of JAMES S. SCHMOHE and LONNIE R. SEYMOUR is investigating the procedure currently used in replacing the structural steel framework of railroad bridges without disrupting the tight schedule of railway traffic. Upon completion of this investigation, they will explore other ways of replacing the bridges considering the structure required and the actual replacement operation.

JAMES W. WOLF and LARRY K. LEKOVISH have selected as their project the consideration of a mass transit railroad system for the greater Chicago metropolitan area. They will start with an overall study of commuter flow, progress to determination of the size and layout of a passenger car for the commuter train of the future, and end with the engineering analysis and design of one specific detail which tends to complicate the development of the total car.

ARNOLD B. BANDSTRA expects to compare the costs, including material and labor, of two different methods of reinforced concrete design: the working stress design (W. S. D.) method and the ultimate strength design (U. S. D.) method. Arnold will design the reinforced concrete for a hospital by the U.S.D. method while his employer of last summer plans the same structure by W.S.D. Then ARNOLD will compare costs of the two methods and attempt to draw conclusions applicable to all reinforced concrete structures.

NEW EXECUTIVE DIRECTOR OF JETS

DAVID R. REYES-GUERRA has recently taken over the position of National Executive Secretary of the Junior Engineering Technical Society, with headquarters at the United Engineering Center in New York City. He has assumed also the duties of Guidance Director for the Engineers' Council for Professional Development.

Mr. REYES-GUERRA was State Director of Illinois JETS since its inception in 1962 and was instrumental in its rapid growth to over 90 chapters in the state out of roughly 1000 in the U.S. While he is on a one-year leave of absence, Professor ROBERT W. DALRYMPLE, of our Department, holds the position of State Director.

ALUMNI NOTES

JAMES BALDWIN, Jr., '51 Ph.D. '61, has accepted the position of Chairman, Civil Engineering Department, University of Missouri.

JACK D. BROWN, '66, Production Foreman with General Foods, Battle Creek, recently visited the campus with his company's interview team.

ROY J. CARVER, '34, is Chairman and Owner of three companies in Muscatine, Iowa: Bandag, Inc., Carver Pump Co., and Carver Foundry Products. He is also doing extensive worldwide traveling.

RICHARD J. COLVER, '67, was married in mid-summer and will live in Rantoul where LA VERNE will teach third grade at Broadmeadow Elementary School. RICHARD will continue his MBA studies at Illinois and will work in T.A.M.

JOHN C. CONANT, '61, is now a Flight Officer for American Airlines, La Guardia Airport, New York. He and the family live on Long Island. A boy, their third child, was born in late spring.

CHAMP W. DAVIS, '63, is now an attorney with a law firm in Chicago. CHAMP and his family are living in Villa Park.

THOMAS E. DOW, '63, is the new Section Head of Radial Ply Passenger Tire Design, Goodyear Tire and Rubber Co., Akron.

MELVIN E. EILERS, '39, is Quality Control Supervisor for the Apache Powder Co. in Arizona, and serves on the Technical Committee of the Institute of Makers of Explosives.

JOSEPH H. FIELD, '33, Manager of Operations, Sohio Petroleum, Oklahoma City. He is engaged in drilling and production of oil properties.

WILLIAM E. HAMRICK, '53, is Management Assistant with the Atomic Energy Commission. He also conducts student interviews for those interested in the nuclear energy field.

RALPH T. HOCKING, '62, has just taken a position with Xerox in Rochester, New York, where he will apply operations research techniques to their quality control functions.

EMANUEL HURWITZ, a G.E. prior to W.W. I, has been Vice-President and Director of the Pollution Control Laboratories, Chicago, for the past four years. He has been appointed by the Mayor of Chicago to serve on the Industrial Wastes Appeals Board.

RICHARD D. JONSON, '56, is Sales Manager Electrical Products, American Bosch Arma Corporation. Previously with Cummins Engine Company.

THOMAS E. MADDEN, '54, is Project Engineer for Philco-Ford, SRS Division, Palo Alto.

ANTHONY J. MCCARTHY, '61, is an attack pilot (A4 Skyhawk) with the U. S. Marine Corps. He agrees with General Sherman that "War is hell."

ROBERT E. MOLLMAN, '50, is now Manager of Molder Projects Research, Alside, Inc., Akron.

JOHN FUNZAK, '63, is a research project engineer at the Technical Center for Plastic Packaging Division of Monsanto Co., Hartford.

WILLARD V. PUTZ, '53, has become Quality Control Engineering Supervisor for Hills-McCanna Co. in Carpentersville, Illinois.

INNO RASINA, '63, a Civil Engineer with the U. S. Forest Service, will be working in the National Forests adjacent to Eureka, California.

EDWARD J. F. REGAN, (E. J. Fregan), '47, is the President of the Anaconda Astrodata Company, Anaheim, California.

DONALD H. RIMBEY, '50, Ph.D. '67, is Assoc. Professor at the University of South Florida.

ALVIN SAMUELS, '56, is now a Staff Drilling Engineer with Shell Oil Company of Louisiana.

DENNIS R. SCHLEMMER, '61, completed his law degree in 1964 and is now a patent attorney.

HERBERT J. SINGER, '63, is now practicing patent law, specializing in patent, trademark and copyright causes.

PAUL C. SMITH, '27, retired as Senior Engineer after forty years with the Stephens-Adamson Manufacturing Co. of Aurora. He is now living in Powers Lake, Wisconsin.

DENNIS L. STEINBACH, '62, Senior Aircraft Tire Designer for Goodyear, has completed a two-year term on the Akron Jaycees Board of Directors.

LEON E. STREMLAU, '61, served in the US Air Force, returned to Urbana to obtain an MBA, and is now employed by the American National Bank and Trust Company, Chicago.

H. R. TROUT, '60, is with the brokerage firm of Merrill Lynch, Pierce, Fenner & Smith, California. He finds the work exciting and rewarding.

DALE W. WEAVER, '64, is a specialist in numeric control programming, General Electric Co., Evendale, Ohio.

RAYMOND WIGGINS, '39, retired after 21 years in the Navy and is now a research specialist for North American Aviation's Space Division, Calif.

WALTER W. ZIEL, '66, is a teaching assistant in our Department while he completes his MBA.