

# GENERAL ENGINEERING NEWSLETTER

Department of General Engineering, University of Illinois at Urbana-Champaign

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Roy S. Carver

Barbara Johnson

#### **CARVER RECEIVES GE ALUM AWARD**

In recognition of a General Engineer's achievements in his profession and service to his community, ROY S. CARVER (GE '34), founder of several industries in Muscatine, Iowa, has been given the Gamma Epsilon Distinguished Alumni Award for 1975. He had received the Illini Achievement Award last year and prior to that, the Distinguished Service Award from the University of Iowa.

Mr. Carver has combined inventiveness, technical knowledge and business acumen to establish and direct diverse enterprises on a world-wide scale. Soon after graduating he designed and manufactured a self-priming pump which was so successful that the British government placed a large order for his product. Following World War II he introduced to the U.S. market a West German process for hardening sand cores and molds.

Next he acquired North American rights for another German invention, the Bandag process cold-cure for retreading automobile and truck tires. After Roy added the world rights in the early '60's, he developed and improved the process to such an extent that cold-bonded retreads became popular among large-quantity users of truck, bus, and industrial tires. Annual sales now exceed 80 million. The Bandag tread, pre-cured at extremely high pressures, is very dense and resistant to punctures and cuts and has extremely good traction and long life.

Carver Tropical Products, Inc. is Roy's latest innovation, in which fruit, vegetables and cattle will be raised on a 44-square-mile tract in British Honduras.

Mr. Carver, who flies his own plane, has a first pilot's certificate for jet aircraft. He is very active in civic affairs and serves on the Board of Directors of the University of Illinois Foundation.

# **ALUMS AGAIN HONORED**

# BARBARA JOHNSON A TOP COLLEGE ALUM

The College of Engineering Alumni Honor Award for Distinguished Service in Engineering is given to alumni or former staff members who have distinguished themselves by outstanding leadership in planning and direction of engineering work, by fostering professional development of young engineers, or by their contributions to knowledge in the field of engineering.

BARBARA CRAWFORD JOHNSON (GE '46, Mrs. Robert H.) was one of the seven winners of the coveted award this spring. The citation read: "To Barbara Crawford Johnson, researcher, engineer, project manager, for her originality and technical contributions to space flight dynamics of missiles and manned vehicles, for her unusual capacity to be a contributing member of a team as well as an inspiring leader able to manage both people and projects." In addition, she was the keynote speaker presenting "New Issues for the Problem Solver."

Mrs. Johnson has worked for Rockwell International (then known as North American Aviation), Downey, California, ever since graduation. She is currently Manager, Mission Requirements and Integration Space Shuttle Programs.

Last year she was recipient of both the Gamma Epsilon Distinguished Alumni Award and the Society of Women Engineers Achievement Award. In 1971 she was presented the Medallion of Honor Award by the Mothers Association at UIUC. Earlier she had received a plaque commemorating her outstanding contributions to the Apollo missions.

# CHITTENDEN BECOMES ALUMNI DIRECTOR

WILLIAM A. CHITTENDEN, '50, has become the College of Engineering representative on the University of Illinois Alumni Association Board of Directors. He will serve on the board for a two-year term.

Mr. Chittenden hails from Missouri and spent one year in the marines before enrolling at UIUC. He joined the Chicago-based power plant consulting firm, Sargent and Lundy, and by 1955 had become Project Director for nuclear generator units. He is a registered professional engineer in several states. He has had many technical papers published and presented at conferences.



Michael H. Pleck

# **TEACHING AWARDS BEGUN AT UIUC**

The Teaching Awards Banquet, 1974—1975, held at the Levis Faculty Center on May 5, 1975, inaugurated the Urbana-Champaign Campus Awards for Excellence in Undergraduate Teaching.

Professor Norman Graebner, formerly at UIUC and now at the University of Virginia, spoke on "Teaching: An Administrative-Faculty Endeavor." In presenting the award to each winner, Vice Chancellor Morton W. Weir gave a resume of their achievements. The faculty members were:

George E. Anner – Professor, E.E., Research Professor, C.S.L. Norman G.P. Krausz – Professor, Agricultural Economics Michael H. Pleck – Assistant Professor, G.E. Roger A. Schmitz – Professor, Ch.E.

The graduate teaching assistants were:

Christine M. Koyama — Humanities Michael R. Mitchell — T.&A.M.

Each winner received a check for \$1,000 for personal use and an additional \$1,000 has been awarded to each faculty member to be included in the departmental budget to be used at his discretion for the purchase of instructional equipment, library resources, or other resources that will enrich his instruction in the future. The names of the recipients will be engraved on a commemorative plaque displayed permanently in the Undergraduate Library.

#### FLORCHUETZ CHAIRS SEMINAR

Arizona State University, Tempe, Arizona, was host to the spring seminar on "Solar Energy Applications for Arizona." The ASME sponsored the all-day affair.

LEON W. FLORCHUETZ (GE '58), who served as the chairman for the afternoon session, is Professor of Mechanical Engineering, Arizona State University. His research has included Solar Energy Research Projects, as well as basic heat transfer relating to liquid-vapor phase-change and boiling phenomena. Currently he is investigating energy conservation in buildings and terrestrial photovoltaic power systems. Leon's teaching includes heat transfer and thermodynamics courses.

#### PLECK RECEIVES CAMPUS-WIDE RECOGNITION

Created this year through the Vice Chancellor's office, the Urbana-Champaign Campus Awards for Excellence in Undergraduate Teaching recognize faculty members and teaching assistants for their outstanding efforts in the classroom.

MICHAEL H. PLECK, assistant professor, was one of four recipients university-wide honored this year. Mike's teaching excellence is based on his dedication, inspiration, integrity, leadership and competence. He creates and maintains enthusiastic rapport and response from his students, to such an extent that some letters of recommendations from former students indicate that their choice of career was determined by Professor Pleck.

Without assistance Mike developed the methodology to introduce computer graphics in a freshman level engineering course. This included computer programs and supportive instructional materials that have met with wide student and extra-university acceptance. Publishers have expressed interest in the development of his class notes into full-scale texts. These instructional materials are being used by more than twenty other schools around the country.

Professor Pleck is a member of ASEE, and was selected as the Young Faculty representative from UIUC to the ASEE annual meeting in June 1970. He was one of the staff in 1972 ASEE Computer Graphics Summer School. He is a member of the ANSI Y-14.26 subcommittee to set standards for the industrial use of computer graphics.

#### **VOLUNTARY STUDENT COMMENTS**

"Professor Pleck is probably the best instructor I've had in two years here at the University. It's very unfortunate that his fine teaching is going unnoticed. In addition to teaching students, it would be a good idea for Pleck to "teach" other instructors how to teach."

"A rare instructor who is concerned about the student needs and what they are learning, someone open to criticism and change."

"Instructor extremely well versed and up-to-date."

"The atmosphere in the class while teaching was really great. It was an experience well worth the time."

"Professor Pleck will go to any lengths to help a student understand the material and is continually updating the notes in order to bring about an easier understanding of the material by the students."

"Mr. Pleck is an excellent teacher. He presents the material well and is continually willing to help any student should he be having difficulty."

'I have had Professor Pleck for two courses at the Big U, and he is probably the best teacher that I've had since I've been here."

"This guy is the best teacher I've ever had. He is always enthusiastic and tries his best to help the student."

#### ASME APPOINTS CONRY

Dr. THOMAS F. CONRY has been appointed Chairman of the Honors and Awards Committee of the ASME Design Engineering Division. His committee is responsible for nominating candidates for the Machine Design Award. This award is made to recognize eminent achievement or distinguished service in the field of machine design which is considered to include application, research, development or teaching of machine design.

# GAMMA EPSILON, HONORARY SOCIETY

The new officers for next year include: CATHERINE C. LENTINE ('76), president, from Arlington Heights, has environmental engineering for her secondary field. She is a member of Tau Beta Pi and has participated in Society of Women Engineers activities. Her hobbies are sewing and cycling.

JOHN A. METZ ('76), vice president, from Momence, has industrial engineering for his secondary field. His hobbies include football, racquetball, cycling, canoeing and automotive mechanics. Member of ISGE.

E. RENO MAURER ('76), secretary, from Murphysboro, has industrial engineering for his secondary field. His hobbies include fishing, hunting, water sports and other athletic activities. Member of ISGE.

BRUCE R. BARTHOLOMEW ('76), treasurer, from Momence. He is currently the secretary of ISGE also.

GARY L. HICKS ('76), director, from Paris, has bioengineering for his secondary field. Gary is a member of Tau Beta Pi. His hobbies include photography and tennis.

Initiates during this past academic year '74-'75 are as follows:

#### Initiates Fall '74

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	'76	Dean E. Anderson	South Holland
	'76	Michael J. Cardoni	Riverton
	<b>'</b> 76	Mark W. Duenser	Norridge
	'75	Kenneth M. Grachan	Lockport
	'75	Perry C. Hendrickson	Joliet
	'76	Gary L. Hicks	Paris
	<b>'76</b>	Catherine C. Lentine	Arlington Heights
	<b>'</b> 76	E. Reno Maurer	Murphysboro
	'76	John A, Metz	Momence
	<b>'77</b>	Mark T. Okuma	Des Plaines
	'75	James J. Schlembach	Springfield
	'76	Neal Siegel	Chicago
ı	nitiates Sp	oring '75	
	<b>'76</b>	William S. Bennett	Olympia Fields
	<b>'76</b>	Neil H. Compton	Springfield
	<b>'75</b>	James J. D'Orazio	Riverdale
	<b>'</b> 76	Kenneth H. Helberg	Loves Park
	'76	Thomas F. Leahy, Jr.	Mt. Prospect





Jon Henderson

Kenneth M. Grachan

# UNDERGRAD RESEARCH SPONSORED BY INDUSTRY

JON HENDERSON, a junior in General Engineering is presently pursuing research in the area of speed control of hydro generating systems under the supervision of Professor Lou Wozniak. Specifically, Jon is examining the effect of the derivative term of the control upon the overall system response.

Jon is working in the capacity of undergraduate research assistant and is sponsored by the Woodward Governor Company of Rockford. This is a continuation of his work with the company last summer where he held the position of junior engineer with the Research and Advanced Analysis Department.

#### ILLINOIS SOCIETY OF GENERAL ENGINEERS

Officers for 1975 are:

GREG IVES ('76), president, is from Champaign. His secondary field is administration. Greg is a member of the Mid Illinois Grotto. His hobbies include game design, pinball, basketball, baseball and photography.

RICH DZIOPEK ('76), vice president, is a junior from Chicago. He is a co-op student at Honeywell in Arlington Heights and is presently on the St. Pat's Ball committee for Engineering Council. Rich is also the Intra Fraternity Council representative for the only engineering fraternity on campus, Sigma Phi Delta.

BRUCE BARTHOLOMEW ('76), secretary, comes from Momence. His secondary field is Business Administration. He is a member of Gamma Epsilon and the Pre-law Club, Hobbies include football, golf and bowling.

BRAD DICKSON ('77), treasurer, is from Dixon. His secondary field is undecided. Brad is a house officer at Lambda Chi Alpha and is Sophomore manager for I.M. sports. His hobbies include skiing and golf. Brad is also an Engineering Council representative from ISGE.

DAVE EITEL ('76), Engineering Council representative, is from Des Plaines. His secondary field is administration. Dave is a member of Kappa Sigma fraternity and is involved in Engineering Open House. Dave has been a member of the Marching Illini and enjoys playing the trumpet in his free time.

#### IN MEMORIAM



Bernt O. Larson

BERNT O. LARSON, Professor Emeritus of General Engineering, died December 18, 1974 at his home in Urbana. He is survived by his wife, Margaret, along with five sons, Lyman and David, both of Champaign; Robert, Minneapolis, Minnesota; Roger, with the Peace Corps on Bahrain Island in the Persian Gulf; and Donald, a student at Hanover College, Hanover, Indiana.

He received three degrees from UIUC: B.S. (1938) and M.S. (1949) both in Civil Engineering, and a professional engineering degree in 1950. He joined the faculty in the Department of General Engineering in 1938 and was promoted to full professor in 1953.

In civic affairs, he held the chairmanship of the Urbana Plan Commission for five years. His service in university affairs included the campus senate and two of its important committees. Bernt was a fellow in ASCE, and served as a consultant for several government and private projects.

When illness forced Professor Larson's retirement during the fall semester, the Department of General Engineering honored him by establishing the Bernt O. Larson Award Fund in the University of Illinois Foundation. Anyone desiring to contribute to this award fund may do so by mailing checks payable to the University of Illinois Foundation Bernt O. Larson Award Fund, 224 Illini Union, Urbana, Illinois 61801.

LEONARD D. WALKER, Professor Emeritus of General Engineering, died November 28, 1974 in Champaign. His wife, Clare, preceded him in death by four months. He is survived by a brother, Frank D., living in California.

Len earned his B.S. in Civil Engineering from the South Dakota School of Mines and Technology in 1925. After a year of work as a field engineer he joined the University of Illinois faculty. Subsequently, he received his M.S. in 1932 from UIUC, and a professional degree in civil engineering from South Dakota School in 1934.

His civic interests included a 35-year membership in the Kiwanis Club. He belonged to the University Club and Triangle Fraternity. He was a member of the Presbyterian Church. He belonged to ASCE and AAUP.

#### FEATURING OUR GE FAMILIES

#### BIRTHS

A son, Adam Benjamin, was born in January, 1974, to Mr. and Mrs. Mike Dinitz. (Mike is GE '67, MBA Dec. '70.) Their first child is a daughter, Heather Sue, age 3.

A daughter, Carla Mae, was born in May, 1974, to Edward and Maebeth Wahl. (Ed is GE '63.)

Twins, boy Douglas and girl Suzanne, were born in September, 1974, to Dennis and Carla Schlemmer. (Dennis is GE '61, Law '64.) Their other children are Dennis, Jr., age 7 and Stephen, age 4.

A daughter, Kristen Noelle, was born in January, 1975, to John and Karin Cochran. (John is GE '70.) Their older son, Peter, is 4 years of age.

# **ENGAGEMENTS**

Kay Brownlee and STEVEN L. SWEARINGEN (GE '72) have announced plans to marry July 5 in the Sibley United Methodist Church.

Kay graduated from Illinois State University, Normal, and now teaches music at Oak View Elementary School, Bolingbrook. Steve earned his M.S. in Environmental Engineering in 1973, and is employed as an environmental engineer by Roy F. Weston, Inc., Wilmette.

Sandra Schenkel and RICHARD B. HOFFMAN (GE '70) have announced plans to marry in August. Sandra earned her M.S. in Home Economics from Ball State University, and Dick his law degree from DePaul University, 1973.

# **MARRIAGES**

#### **BRUBECK-BENTON**

MARK C. BENTON ('74) married the former Becky Sue Brubeck ('74 Radio-TV) in June, 1974.

#### SCHROCK-WUTHRICH

MARK E. WUTHRICH ('73) married the former Cheryl Schrock of Congerville, Illinois, in September, 1974.

#### **OZUK-NEALIS**

NEAL NEALIS ('74) married the former Randee Jean Ozuk of Park Ridge in February, 1975. They took a week's honeymoon in Acapulco.

# SIZEMORE-MARCONNET

JAMES MARCONNET ('74) married the former Patricia Ann Sizemore in February, 1975. The wedding was held in the Speedway United Methodist Church, Indianapolis.





Alan R. Belair

Thomas W. Tobin

#### SPRING AWARDS BANQUET

The spring awards banquet, sponsored jointly by Gamma Epsilon and the Department, was a festive occasion to honor and recognize students, faculty and alumni. The dinner at the Ramada Inn was attended by 74 people.

# HIGHEST SCHOLARSHIP RECORD BY SENIOR

ALAN R. BELAIR, '75, of Hickory Hills, was selected as the "outstanding scholar in General Engineering" for the Edward S. Fraser Award. While establishing a grade point of 4.908 (out ot 5.0) he served as vice president of Gamma Epsilon and helped with the Department's Open House displays. His participation in intramural athletics included basketball and baseball. During his junior year Alan received the Randolph P. Hoelscher Award.

Alan has also received University Honors — the Bronze Tablet — by ranking in the upper three percent of engineering students. His name will be inscribed on the Bronze Tablet which hangs permanently in the University Library.

# SENIOR CHOSEN OUTSTANDING BY CLASSMATES

KENNETH M. GRACHAN, '75, Lockport, won the H.L. Marcus-L.B. Phillips Award. Selection is based in a large measure on character and general attitude as evaluated by fellow members of the G.E. senior class. Scholarship and excellence in extra-curricular activities are also considered. Ken has been very active in Engineering Council, as Administrative Vice President of Educational Affairs Committee, and this year as President of the Council. He became Knight of St. Pat in 1974. He is very active in intramural sports, and plays accordian professionally as the leader of a small combo.

# JUNIOR YEAR AWARD

The Randolph P. Hoelscher Award was presented to JON H. HENDERSON, '75, of Olympia Fields, as the junior in the Department who had "achieved exceptional scholarship and leadership." Jon has a grade point of 4.974 (out of 5.0). He is a member of Tau Beta Pi and worked on their Engineering Open House Committee. He is a volunteer tutor in math and science for underclassmen. The Woodward Governor Company, Rockford, is sponsoring him for a research project this academic year.

#### KNIGHTS OF ST. PAT

THOMAS W. TOBIN, '76, Park Forest, has a long record of achievements, having been both the Outstanding Junior and the Outstanding Senior in Rich Central High School of Olympia Fields. He won a first place individual project award his freshman year during Engineering Open House. He has been active as a student representative to the UIUC Senate, and a member of the University Admissions Committee. He is the executive vice president of Engineering Council, chairman of their Speakers' Bureau, and member of their awards committee. Tom has also been a member of the all-student committee to select faculty recipients for the Urbana-Champaign Campus Award for Excellence in Undergraduate Teaching.

Last summer Tom worked for the Linde Division of Union Carbide Corporation in Tonawanda, New York.

KATHRYN A. DAVIS, '74, of Avon, has remained in the limelight of winners since winning the Randolph P. Hoelscher Award as a junior. During her senior year she received the Grace Wilson Award as the outstanding graduating senior woman engineering student. In addition she won the H.L. Marcus-L.B. Phillips Award as well as being a member of one of the co-winning projects of the Senior Project Design Award within the G.E. Department. This project, "Design of a 50-Ton Guyless Derrick," won the first-place award in the structures division for 1974 of the James F. Lincoln Arc Welding Foundation Contest.

As president of Gamma Epsilon last year, Kathy's dynamic leadership inspired the honorary society to establish the Distinguished Alumni Award. This year she is studying structures as a graduate student in Civil Engineering, but finds time to be president of Tau Beta Pi.

# MITE (Minority Introduction to Engineering)

During the summer of 1974 the sixth group of minority students spent two weeks on the University of Illinois Urbana-Champaign campus learning about engineering. The MITE program on our campus was funded by a grant from IBM. Nine other MITE programs were held on various campuses across the country. A total of 352 minority students from 19 states and D.C. attended MITE programs. Included were 215 males and 137 females. One program was made up predominantly of Spanish-Americans and another was entirely made up of American Indian students.

The national MITE effort is an outgrowth of the University of Illinois Inner-City Engineering Orientation Program and was patterned after this successful effort. David O'Bryant acted as consultant to the national MITE program.

It is anticipated that during the summer of 1975 there will be 20-25 MITE programs, which will provide 1000 minority students an opportunity to find out whether or not an engineering education is for them.

- '49 DONALD C. MURRIN is district sales engineer for the Material Service Division of General Dynamics, located in Chicago. He lives in Michigan City, Indiana.
- '56 KENNETH ALLEN GABLIN has returned to the Midwest from out in the Northwest. He is currently vice president, marketing and sales, for the Nuclear Engineering Company, Inc. in Louisville, Kentucky.
- '57 RALPH IVAN STEPHENS is part of the faculty for the Materials Engineering Division, University of Iowa. Professor Stephens and his family will spend three months this summer in Europe. He has received a NATO Senior Faculty Fellowship to study "Fatigue Crack Growth Under Spectrum Loading." He will be involved at the National Research Laboratory in Holland, at the Royal Aircraft Establishment in Farnborough, England, and at athe British Aircraft Corporation in Bristol, England. Of course, the entire family plans to manage vacation trips also.
- '61 DENNIS R. SCHLEMMER earned his LLB from UIUC in '64, and is now a partner in the patent law practice of Wolfe, Hubbard, Leydig, Voit, and Osann, Ltd., Chicago.
- '63 EDWARD CARL WAHL has become building coordinator for the Springfield Marine Bank, Springfield, Illinois. This bank is the oldest one in Illinois (chartered in 1851) and second largest downstate. Ed is responsible for planning a new bank building which will be erected on the present site. He well also coordinate all interim relocations of the bank's staff for "banking as usual" during construction.
- '64 ROBERT E. LODY has become the manager of accounting for Barber-Greege Company in Aurora, Illinois. Bob started with the company about three years after graduation, beginning as a sales engineer. He legally changed his name from LODYGOWSKI to the present LODY at the time of graduation.
- '67 WILLIE MORRIS DEAN, Jr. went to work after graduation for General Electric, entering their manufacturing management program. Following two years of military service in Germany he worked for Gas Turbine International Operations Department in Schenectady, N.Y. Willie now has the title of Quality Assurance and Manufacturing Engineer, and serves as coordinator at G.E.'s Manufacturing Associates located in Holland and Scotland.
- '68 DONALD CLIFFORD BISHOP completed his MBA from Louisiana State University in summer of 1974, and is now financial analyst for Collins Radio Group, Rockwell International in Dallas. Don graduated first in his MBA class with a straight 5.0 average. His wife, Mary, likewise earned a straight 5.0 average in her Master of Library Science.
- '70 RICHARD B. HOFFMAN earned his law degree from DePaul University, Chicago, in June, 1973 and is a patent lawyer with McCaleb, Lucas & Brugman in Chicago. He specializes in patent, trademark and copyright cases. Dick's advice to future law aspirants is to work in a law office while going to school so as to assure a position in practice of law after graduation.

- '71 JOHN D. THELAN received his Juris Doctor from the University of San Diego in the spring of 1974, and is now an associate attorney with White, Price, Peterson & Robinson in San Diego.
- '71 DAVID G. MANN began working for Black & Veatch Consulting Engineers, Kansas City, last fall. He is currently a field engineer on sewage treatment plant in the Kansas City area. For three years Dave worked with the Illinois Department of Transportation.
- '71 JAMES LAWRENCE DOBROVOLNY received his Juris Doctor from John Marshall Law School last fall, and is now working for Attorney General Scott's office in their Environment Division. It is interesting to note that Jim's senior project dealt with renovating the Boneyard and led directly to his present assignment.
- '71 STEVEN P. NYSTEDT has moved to Minneapolis where he is Shopping Center Development Project Engineer for the Dayton-Hudson, Inc.
- '73 MARK E. WUTHRICH joined Caterpillar Company at the time of graduation, entering their one-year technical training course. Since completing that training, Mark has worked in both the fuel injection design group, and the basic engines engineering department.
- '74 MARK C. BENTON is now working towards a master's degree in M.E. at the University of Wisconsin and hopes to stay on for his Ph.D.
- '74 ELBERT E. WILLIAMS, Jr. is a project engineer for the Concrete Products Group of Illinois Tool Works, Itasca, Illinois. During his training program Bert had full responsibility for the design, drafting and testing of samples made from his own ideas.
- '74 THOMAS W. TIMMERMANN is working for the Firestone Tire & Rubber Company in Akron, Ohio.
- '74 THOMAS H. NICOL is project engineer with the Chemetron Corporation Industrial Gases Division in Chicago.
- '74 NEAL CHARLES NEALIS, Jr. is a field engineer with the Amoco Chemicals Corporation. He is currently on construction site in Galveston, Texas, anticipating that that particular chemical plant will be completed this summer.
- '74 DAVID ANDREW BECK is really enjoying both the work and the weather in Durham, North Carolina, where he is busy with the U.S. Environmental Protection Agency. In fact, Dave says he gets to play some golf every now and then.
- '74 LARRY P. RANDELL began his working career with Chicago Bridge and Iron Company's fabrication plant in Kankakee. Here he became familiar with the processes involved in the manufacture of steel plate structures. For another year he will continue to be field engineer at various construction sites throughout the Midwest. Currently he is in Lima, Ohio, helping to construct two floating roof gasoline storage tanks 48 feet high and 78 feet in diameter.