

### In Memory of Mardith (Mardy) Baenziger, Ph.D., P.E.

Mardith (Mardy) Baenziger's professional career was one of firsts. She was the first-ever female recipient of a National Defense Fellowship, and in 1986 she was one of only three women engineering faculty alongside 201 tenured men in ISU's College of Engineering.

Mardy was born in Ames, IA, on October 20, 1945. It was a Homecoming Weekend day and the Iowa State football team was victorious over Nebraska. She grew up in Iowa City and graduated from Iowa City High in 1963. She passed away on September 9, 2019.

Mardith Baenziger was the eighth and final Iowa Alpha recipient of the Tau Beta Pi Woman's Badge, graduating from Iowa State with a B.S. in Architectural Engineering in 1968 and a master's degree in Nuclear Engineering in 1969. From 1970 to 1975 she worked as an engineer and project engineer for a consulting engineering firm in Akron, Ohio, mainly involved in commercial, institutional and light industrial structures. In 1976 she moved to Wisconsin to attend graduate school at the University of Wisconsin-Madison, where she was also a teaching assistant and instructor. When she started work on her doctorate degree, her sons were 1 and 3 years of age. She commuted three hours to school each day, while continuing to do all of the cooking, cleaning, laundry and raising of her children. She received her Ph.D. from Wisconsin in 1983.

After receiving her PhD, she returned to Iowa State University as an Assistant Professor in the Department of Civil Engineering in 1981. She became a tenured faculty member at ISU in 1986. She taught several courses in the Engineering College and the Department of Civil, Construction and Environmental Engineering (CCEE), mostly in the area of Structural Engineering. A measure of her success in this regard was the 1985 ISU Faculty Award she received for Excellence in Teaching, Research, and Service in Civil Engineering.

Her main areas of professional interest included structural dynamics and analysis, computer methods of analysis and design, computer graphics and engineering education. Her focus over the last several years was the development of the ISU Civil Engineering capstone senior design course. A version of the capstone

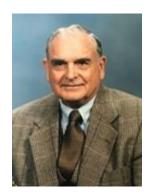
course she helped develop is still used today. During teaching of the capstone course, she utilized potential real projects that were likely or planned to be built. These projects provided real experiences for the students majoring in Civil Engineering. Most all of the projects utilized the various disciplines of civil engineering in the duration of the design of the project. The projects included a wide range of topics, including, for example, recreation areas and even a roundhouse at the Boone and Scenic Valley Railroad. She found a creative use of her mathematical and design skills and her learning and teaching enthusiasm. She retired in 2007 as an Associate Professor, Structural Engineering in the CCEE Department.

She used her engineering skills in building her own house together with her parents. Her father Norman aided in the passive solar heating design. Betty, Mardy's mother, aided as the architect. Mardy was a partner in the development of the plans and the design of the structural components. She was a registered Professional Engineer, P.E., in the states of Ohio and Wisconsin.

As a single parent of two sons, she had the challenge of balancing her professional success with her private life until she suffered a stroke in 1999. Her passion then became quilting where she found a new community of friends in Ames and Minnesota and a creative outlet for her mathematical and design skills. She had made a large number of quilts, usually on special topics.

Mardy's life was guided by her passions for learning and teaching and she touched many with her enthusiasm. She is survived by her two children, Matt and Andy Thomas, their spouses, five grandchildren Ellie, Peter, Loenn, Ari and Halle, and brothers Walt, John and Greg Baenziger.

#### **Paul Douglas Doak**



Paul Douglas Doak, Emeritus Associate Professor of Economics, died at the age of 90 on May 12, 2019 in Columbia, Missouri. He was buried in Columbia Cemetery.

Born January 5, 1929, on a farm south of Gallatin, Missouri, Paul was drafted into the U.S. Army during the Korean War and suffered a severe wound in the right leg during combat. His wound resulted in two and a half years of military hospitalization.

Paul earned the bachelor's degree in Agriculture from the University of Missouri in 1957 and the MS in Agricultural Economics from the same institution in 1960. He enrolled in the PhD program in the Department of Economics at Iowa State University in the fall of 1960 and was awarded the PhD degree in Agricultural Economics from ISU in 1965. He was then appointed as an Assistant Professor of Economics at ISU, and later promoted to Associate Professor with tenure in 1969. Paul retired in 1992.

As a faculty member, Paul's duties primarily involved undergraduate education. He taught a number of courses over the years that comprised part of the Agricultural Business curriculum, the Economics Department's undergraduate major in the College of Agriculture and Life Sciences. These courses included Marketing Farm Products, Agricultural Marketing Laboratory, Marketing Livestock and Meat, Agricultural Cooperation, Agricultural Marketing Analysis and Senior Career Seminar. He was widely regarded as an excellent teacher who did his upmost to make his courses interesting, relevant and useful to his students.

Paul was the academic advisor for a very large number of Ag Business students over the years of his employment at ISU. In most years, he had at least 50 advisees and in some years more than 100. For good reasons, he was widely regarded as an outstanding academic advisor. He showed great respect for students and was always willing to spend time with those seeking his counsel. He placed the highest priority on serving the wants and needs of his advisees. His door was always open to them.

Paul was an affable colleague with many friends among the department and college faculty.

Paul married Patricia Ann Austene in 1951. She and their daughters, Sara and Laura, survive him.

Respectfully submitted by Lehman B. Fletcher and Dennis R. Starleaf

# Memorial Resolution for Gayle L. Huey Department of Curriculum and Instruction

Gayle L. Huey passed away on January 12, 2019. Gayle was a passionate and talented educator, teaching in elementary schools in several states before moving to Ames. She continued to work in education, specifically in the field experience office in the College of Education, Department of Curriculum and Instruction at Iowa State University. She served as the Director Field Experience and worked with her staff to find practicum and student teaching placements for pre-service teachers at all levels.

Gayle helped design and implement *Project Opportunity*, a cohort-based teacher education program implemented in the Department of Curriculum and Instruction. Gayle worked with the partner schools to place students in a variety of classrooms. In addition, she helped design and conduct research related to the effectiveness of this program in the preparation of pre-service teachers. She also helped faculty in the department provide practicum experiences to students in specific content areas.

Gayle and her team "grew" the International Student Teaching program to include sites in Europe, Asia, and Australia (including New Zealand). She also increased the number of student teaching sites in Iowa and the U.S. Throughout her time in the field experience office, Gayle helped improve field experiences for all the teacher education programs at ISU. She gathered data from pre-service teachers, cooperating teachers, and university supervisors concerning the experiences provided in the programs and made changes accordingly. Gayle completed her Master's degree in Curriculum and Instruction Technology in 1996 using data from *Project Opportunity*.

Gayle impacted thousands of young people who went through the teacher preparation program at Iowa State University and colleagues with whom she worked! She served as a mentor and a role model to so many people! Her impact is still being felt, ten years after she retired!

Gayle is survived by her husband Lee Huey; her two sons Chad (and wife Kerry) McEvoy, and Clay (and wife Charity) McEvoy; five grandchildren: Andrew, Luke, Abigail, Lauren, and Emma; and many friends.



#### John Kleitsch



John Kleitsch, 81, of Ames, passed away May 14, 2015, at Bethany Manor in Story City.

John C. Kleitsch was born Sept. 8, 1933, to Mabel and Lawrence Kleitsch in rural Iowa. John served his country in the U.S. Army in the Korean War, then graduated from Iowa State University with a degree in electrical engineering. He earned master's degrees in electrical engineering and business administration from the University of Iowa. His first position was with Boeing in Seattle, Wash. He then went to work for Collins Radio in Los Angeles, taking digital design courses at the University of Washington and UCLA.

After 23 years in telecommunications design at Rockwell Collins, John taught digital circuit design for 21 years in the Department of Electrical and Computer Engineering at Iowa State University. He co-authored at least three patents. As a consultant at Motorola, John's project involved the use of satellites to control railroad traffic.

John was a member of St. John's Catholic Church in Independence, St. Matthew Catholic Parish in Cedar Rapids and St. Cecilia Catholic Church in Ames. He always found a Catholic church to attend on the family camping vacations to Yellow River State Forest, the east and west coasts and points in between.

Visiting friends Paul and Sonya Burke, Don and Velma Stover and family and reunions of the Kleitsch and Rhoads families were important to him and Ruby. John loved to fish for rainbow trout, plant a garden and hike a trail with his family.

He is survived by his children, Carol Kleitsch-Santos, Deanna (Chris) Eckert (Michigan), Randal (Nancy) Kleitsch (Wisconsin), Susan Houseman (North Carolina) and Dennis Kleitsch; and his sisters, Dorothy (Don) Gannon, Darlene (Jim) Schrader (Wisconsin), Janet Kleitsch, Mary Lou Adams and Phyl (Ken) Osterhaus. John was preceded in death by his wife of 61 years, Ruby, who passed away on April 7, 2015; his daughter, Mary Schrier, who passed away Feb. 25, 2015; two sisters, Shirley Jensen and Lettie May; and three brothers, Russ, LaVerne and James.

#### John Lamont



John Lamont, professor emeritus of Iowa State University's Department of Electrical and Computer Engineering (ECpE), passed away on Nov. 27, 2018, at the age of 76.

Lamont received his Bachelor of Science degree in electrical engineering from the Missouri School of Mines, now the Missouri University of Science and Technology, and his Master of Science degree and Ph.D. from the University of Missouri, Columbia. He began his teaching career at the University of Missouri and went on to teach at the University of Southern California at Los Angeles; the University of Texas at Austin; and Iowa State University. He also worked as project manager for the Electric Power Research Institute in Palo Alto, California.

During his time at ISU, outside of his role of Professor, Lamont was the first director of the Electric Power Research Center (EPRC) as well as the University Extension Coordinator for Electric Utilities. He was a senior member of the Institute of Electrical and Electronics Engineers (IEEE) and a full member of Sigma Xi, a non-profit honor society for scientists and engineers. Lamont's research areas included electric power; operation of power systems; electric and magnetic fields; and computer applications; and he taught a variety of courses on those topics.

In 2007, he retired from Iowa State after 20 years as Professor of ECpE. At the time of his retirement, Lamont had seen 2,500 students through ECpE's senior design program. Lamont considered another major accomplishment of his career to be coauthoring a report on emission dispatching for the City of Los Angeles Department of Water and Power from 1968 to 1973. The paper was the forerunner of today's talk about the effects of car emissions on the environment.

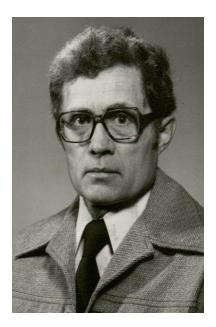
"John Lamont brought to ECpE a combination of solid technical knowledge from his years working in academia and deep understanding of practical power engineering from his time in industry," said Jim McCalley, Distinguished Professor of Electrical and Computer Engineering at lowa State. "John used this combination at Iowa State in both his instructional and research activities. He taught an undergraduate senior elective course on electric utility systems and practices that was for years one of the most popular elective courses in the department. He also served as Director of the Electric Power Research Center, where he, among other things, performed measurements of power line electromagnetic interference around the Midwest. Above all, John was a gentleman and a warm friend to students and faculty alike. He will be deeply missed."

#### **Vernon Mayer**

Former faculty member Vernon Mayer passed away April 24, 2019 at the age of 74



Vernon Mayer, a former instructor in the Department of Mechanical Engineering, passed away peacefully on April 24, 2019 at his home in Bismarck, North Dakota. Vernon Frank Mayer was born Jan. 9, 1945 in the southwest North Dakota town of Regent. Growing up he worked around the farm with his siblings, and enjoyed building things with his brother Clifford. Vernon attended boarding school in New England and graduated high school in 1963. He then attended Gonzaga University in Spokane, Wash. on a trumpet scholarship and pursued a degree in mechanical engineering. While at Gonzaga he participated in various music ensembles with his brother Clifford, a saxophonist. In 1967, he moved to Ames to pursue graduate studies at Iowa State. It was in Ames that he met the love of his life, Barbara Ewald, and the couple married in 1968. Vernon served as a mechanical engineering instructor while also pursuing his master's in mechanical engineering and then his Ph.D. in metallurgical engineering. As a graduate student, he was known for once riding his bike to campus, even though the university was closed for a snow day. After completing his graduate studies, Vernon moved to Pittsburgh, Pa. to work for Alcoa Research Laboratory. He worked there for two years before moving back to North Dakota to take over the family farm after his parents retired. Outside of farm work, Vernon enjoyed cycling and music, playing guitar, saxophone, country fiddle, and trumpet for the Dakota Gold band and also participating in church ensembles. After retiring from farming, Vernon transitioned into work as an engineering consultant. He also stayed busy by watching his grandchildren compete in sports and participate in music as well as dance. His son Todd continued the family legacy at Iowa State by completing his B.S. in mechanical engineering in 1992. Vernon is survived by his wife, brother, three children, various grandchildren, and many nieces and nephews.



Memorial Resolution for Richard Montag

Richard Edward Montag, 93, passed away on April 2, 2019, surrounded by his family.

Rich was born on October 18, 1925, one of ten children born to Joseph and Frances Montag on the family's farm in West Bend, IA. At 18 years of age, Rich was drafted into the Army and spent four years proudly serving his country in France and Germany during World War II. He also served as a reserve during the Korean Conflict.

In 1950, Richard married his wife of 68 years, Patricia Langren. After farming for several years, the family moved to Ames in 1958 so Richard could attend lowa State University. Richard graduated with bachelor's and master's degrees in civil engineering and was an associate professor at ISU until he retired December 1988. He also worked as a land surveyor in his own business for many years.

After he retired, Richard and Patty moved to Colo, where they lived for 27 years. Richard was an avid reader. He enjoyed many family camping trips around the country and reminiscing about his early days on the farm and in the Army. A highlight of Rich's retirement was a family trip to France and Germany to visit the places where he was stationed during World War II. While there, Richard and his family prayed at the gravesite of his brother, Tom, who gave his life for our country. Richard was a gentle soul who will be dearly missed.

Rich is survived by his wife, Patricia; six children, Tom, Paul, Ruth, Mary, Beth, and Andy; ten grandchildren, Jennifer, David, Sarah Ann, Matthew, Patrick, Peter, Sarah Elisabeth, Jacob, Riley, and Jack; and one sister, Anna Zita Brown, of West Bend.

He was preceded in death by his parents; eight siblings; and two angel grandbabies, Bethany and Daniel.



Joel Charles Moses Jan. 23, 1944 - Sept. 26, 2019

Dr. Joel Charles Moses passed away September 26, 2019 at the age of 75. He was born January 23, 1944, in Toledo, Ohio to Rose and David Moses. He was a member of the faculty of the Department of Political Science at Iowa State University for 35 years, retiring in 2003. Joel earned his B.A. from Beloit College, in Wisconsin. He then went on to earn his Masters (1968), Certificate of Russian Area Studies (1969), and Ph.D. (1972) in Political Science from the University of Wisconsin-Madison. At Iowa State, he was an Instructor (1971-1972), Assistant Professor (1973-1976), Associate Professor (1976-1982), Professor (1982-2003), and Emeritus Professor (since 2003). As a Fulbright Scholar, he visited the University of Economics in Bratislava, Slovakia, in 2012 and the International School of Liberal Arts in Bratislava in 2008. At Rollins College he was an Adjunct Professor of International Affairs in 2005. In 2004 he was Adjunct Professor of Social Sciences at Embry-Riddle Aeronautical University. He was at the European University at St. Petersburg, Russia on an IREX grant in 2000. At Stetson University he was Visiting Professor of Political Science and Russian Studies in 2000. At the University of Latvia from 1995-1996 he was a Fulbright Scholar in the Department of Political Science. At the University of Wisconsin-Madison he was Visiting Professor of Soviet politics in 1987. He was at the Hoover Institution of Stanford University as a National Fellow from 1984-1985). He was Visiting Associate Professor of Soviet politics at the University of California, San Diego in 1981-1982. At Cornell University he was Visiting Associate Professor of Soviet politics from 1977 to 1978.

During his retirement he continued publishing scholarly research on Eastern Europe. Known for his brilliance, quick wit, infectious laugh, and his kind and compassionate spirit, he spent his retirement continuing to volunteer as a mentor through FUTURES Foundation's "Take Stock in Children" program that offers at-risk, low income students college tuition scholarships, caring volunteer mentors, and hope for a better life. A true sports enthusiast, he loved following any organized sporting event, becoming a fan of the University of Central Florida's Knights. He also spoke highly about his friends from the Ponce Inlet Corvette Club. Joel was preceded in death by his mother, Rose, and his father, David. He is survived by his sister, Sandra Moses Zimbler, his nephew Craig Zimbler (Marie), his nieces Michele Zimbler and Debbie Gatz (Dean), and his great-nephews Ben and Charlie Gatz, with whom he took great interest in their soccer and education.

Joel Moses was a long-time colleague in the Department of Political Science at Iowa State University. His expertise in Soviet studies, the Russian language, and the Middle East led to a highly productive career in teaching, research, and publication. He remained a committed scholar until the very end. At the time of his death his latest (and last) article is forthcoming. During his career he published seven books, at least two dozen journal articles, 15 book chapters, and 40 book reviews.

#### Ralph "Pat" Patterson



Ralph "Pat" Patterson, retired assistant professor and alumnus of Iowa State University's Department of Electrical and Computer Engineering (ECpE), passed away on August 26, 2018.

Patterson, who retired from Iowa State in 2007 and was also a retired colonel from the Army Reserve, first received his electrical engineering bachelor's degree from ISU in 1963. Upon graduation, he was stationed by the Army in Maryland and spent nine years on the East Coast, working in the Nuclear Effects Lab and later for a small general instrumental and electronics services company. He returned to Iowa State in the 1970s to pursue a master's degree, which he earned in 1976, and to work with the College of Engineering's freshman engineering division. In 1981, then ECpE Department Chair J.O. Koplin hired Patterson to perform student advising and teaching roles. Shortly after, Patterson initiated one of the first advising centers in the College of Engineering and on the Iowa State campus. Patterson dubbed the department's advising center "Student Services." He remained with Student Services as an adviser through 1995 and saw the advising center grow. During that time, Patterson also helped put together the design concept for the electrical engineering senior design course. This course allowed students to work on real-world engineering projects during their senior year. It was a voluntary course for students until the electrical and computer engineering senior design courses were integrated in the 1990s.

Another highlight of Patterson's career involved working on the Mobile Demonstration Lab for Environmental Screening Technology, a unique technology for renovating soils contaminated with lead, chrome, and radioactive materials developed through the Ames Laboratory's Technology Integration Program. He and his colleagues from multiple engineering disciplines took lab-level technology for contamination of soils and put it into a mobile lab that could be used in the field.

"Pat was a faculty memory who was always ready to go an extra mile for the department. He taught large classes like Introduction to Logic Design and ensured that he had extended office hours. He also made himself available to students outside the office hours to help students," said College of Engineering Associate Dean Arun Somani. "Professors John Lamont and Pat Patterson managed our senior design class for several semesters and supervised multiple senior design projects together. This was a large workload that the team of John and Pat was willing to undertake when we needed it most. He was a pleasant person and fun to talk to and share ideas. Education was his passion, and he remained engaged until his retirement."

During his time as a student at ISU, Patterson was a member of the Army ROTC, Interfraternity Council, several departmental activities and Homecoming and VEISHEA committees. Patterson was also a member of Eta Kappa Nu, the International Honor Society for Electrical and Computer Engineers; the Phi Eta Sigma organization, which promotes social, academic and professional excellence among high achieving undergraduate students at Iowa State; the college military honor society National Society of Scabbard and Blade; and Tau Beta Pi, an engineering honor society.

"Pat Patterson was a devoted advocate for all ECpE undergraduates. He carefully listened to their questions and concerns (technical, general or personal). His response was always thoughtful without prejudgment and usually spot-on with options. His eyes sparkled to match an infectious permasmile," said Richard "Dick" Horton, ECpE alumnus and professor emeritus. "I best remember Pat as a devoted mentor for senior design projects, keeping them on track and on time with equal attention to technical issues and documentation. End-of-semester presentations to peers, faculty and external sponsors of projects were often the most challenging, yet important, part of the course. Coover Hall was Pat's home away from home, and every day was a good day."



## Ronald H. Peters

September 4, 1938 - June 17, 2019

Ron Peters, born September 4, 1938 passed away on June 17, 2019 after a long battle with Parkinson's Disease and Multiple System Atrophy. Ron grew up in Manning Iowa, the son of Henry and Esther Peters. The first in his family to attend college, Ron attended the University of Iowa where he completed both his undergraduate and graduate work in Physiological Psychology. Upon graduation he received an offer to teach at Iowa State. Ron spent his career in the Department of Psychology at ISU, retiring in 2004. Ron's career at ISU was marked by excellent teaching, important research, and significant service to the university, including serving as Faculty Senate President in 1995-1996. During his career, Ron taught a variety of courses, but he was best known for his work in the very large Introduction to Psychology (Psychology 101). His classes were noted for being interesting, engaging, and challenging. Ron loved communicating the science of human behavior to college students and challenging them to apply it to their own lives and work.

Ron was a valued mentor of graduate students. His research focused on physiological regulation of eating and reproduction using animal models. He trained many students who went on to very successful careers in universities around the country. Over the years, Ron and his students collaborated on approximately 30 refereed publications in the most prestigious journals in his specialty area.

Ron was recognized with the ISU Alumni Association Faculty Citation in 2000 for his 35 years of outstanding contributions to the students, faculty and administration of the university. He was also the recipient of the Burlington Northern Foundation Award for Career Achievement in Teaching (1991), the College of Liberal Arts and Sciences Outstanding Teacher at the Introductory Level Award (1991), the College of Liberal Arts and Sciences Excellence in Teaching Award (1989), and the AMOCO Outstanding Teacher award (1984). He was recognized by several student groups for his contributions, such as the Alumni Association Outstanding Advisor Award (1985). Notably, Ron Peters was one of the first faculty members at ISU to advocate the use of powerpoint in the classroom, and he devoted considerable time to sharing this method and his expertise with other faculty and graduate students around the university.

In addition to serving as President of Faculty Senate, Ron also served the university in many other ways. He was part of the university task force that established the Center for Teaching Excellence (now the Center for Excellence in Learning and Teaching) and he chaired the Provost's Task Force that developed and implemented learning communities on campus. He served on the committee that established the Ph.D. program in Neuroscience, and he served on and chaired the LAS Promotion and Tenure committee. He worked on multiple university-level search committees for deans and other administrators. He was awarded the LAS Distinguished Service Award in 1999.

Ron Peters was a truly outstanding member of the university community. Legions of students and faculty have benefited from his inspired teaching, his wise counsel, and his dedicated service.

Prepared by Susan E. Cross

#### **Allan George Potter**



Allan George Potter, 88 of Spokane, WA passed away on May 8, 2019 surrounded by family.

He was born to parents Lenora and Waldean Potter on May 9, 1930 in Frankfort, Kansas. Allan graduated from Frankfort High School and received a Bachelor of Science degree in Electrical Engineering from Kansas State University.

He went on the earn Masters and Doctorate degrees in Electrical Engineering from Iowa State University. During his career Allan conducted research in the biomedical field, specifically in the development of a hand brace for quadriplegic individuals operated by electricity generated by a person's own nervous system. Later, his interests turned to alternative energy sources; solar and wind. He was member of a number of engineering honorary societies, organizations and university committees.

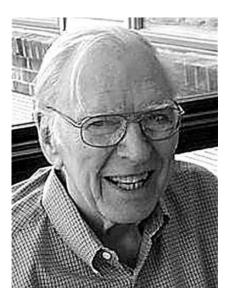
Allan married Carolyn Bernice Samuelson in 1952, who survives him. In the years after their marriage, he also worked outside of academia as an engineer for Honeywell and Magnavox Companies. Allan joined the US Army ending up in the Signal Corps and worked as a wire officer, reaching the rank of First Lieutenant.

Allan had many hobbies. He was an avid archer. He hunted deer with a bow, because he felt, rather than use a gun, it was the fair thing to do. More than archery, though, was his love of fishing. Allan went on countless trips which revolved around the sport. He was an accomplished singer, a tenor. He sang in his church choir and also with a Barbershop group. He was, for 60 years an active member of St. Andrews Lutheran Church in Ames, lowa and a board member of the Lutheran Student Center in Ames. Allan had a big heart and was charitable to others, giving where needed and volunteering when asked. He lived his faith.

After retirement, he and Carolyn traveled widely within the U.S. and overseas and enjoyed frequent visits to children and grandchildren in the Midwest and on the West Coast. Allan appreciated the adventure of a trip, but always loved returning back to his home in Ames. He and Carolyn developed deep and lasting ties to friends in their neighborhood, church and professions.

Allan is survived by his wife of 67 years, Carolyn, son Mark and wife Nancy, daughter Susan and husband Dennis, son Ted and wife Anna and brother Dean as well as 10 grandchildren and 9 great-grandchildren. Allan was predeceased by parents Lenora and Waldean Potter and brother Don Potter.

#### Robert Murray Stewart, Jr.



Robert Murray Stewart Jr., of Ames, passed away on April 11.

Bob was born in Washington, D.C., to Robert Murray Stewart Sr. and Emily Smith Stewart. He was raised in Salt Lake City and later attended the University of Utah, where he met his future wife, Patricia Mary Ellerman.

Bob served in the U.S. Navy and attended the V-12 program at Iowa State College.

After completing his degree at Iowa State College in 1945, Bob became an instructor in electrical engineering. In 1954, he completed his doctorate in physics at Iowa State College and became a faculty member in the Physics and Electrical Engineering departments.

In the early 1960s, Bob directed the design and construction of the Cyclone Computer at Iowa State. As faculty and student interest in computing grew, Bob, along with the Computations Center and faculty from various departments, established the Computer Science department at Iowa State University, where he became the founding chair of the department in 1965. Bob retired from Iowa State University in 1988 as professor emeritus.

Best childhood memories from Bob's two children — shooting off Estes rockets, constructing a theater in the basement, camping every summer in the Rocky Mountains, making wood boats to float down the gutters in rainstorms, learning to ice skate on the backyard rink, building and flying kites, and reading out loud an endless stream of great books, including the tales of "Narnia," "Watership Down" and "The Hobbit."

Bob was preceded in death by his mother and father; his wife, Patricia; and his two younger sisters, Martha Hatch and Shauna Larson.

Bob is survived by his children, Martha Murray Stewart (Russ Hoffman), and granddaughter, Maggie, of Ames, and Scott Robert Stewart (Roberta Autorino) and grandsons, Michael and Mathew, of Southbury, Conn.

#### Robert J. Weber



Robert Weber, professor emeritus and alumnus of Iowa State University's Department of Electrical and Computer Engineering (ECpE), passed away in Des Moines, Iowa, on Nov. 21, 2018, at the age of 76.

Weber received his bachelor's degree, master's degree and Ph.D. from Iowa State in Electrical Engineering between the years of 1963-67. While a student at ISU, Weber was a member of Sigma Xi, a national honor society for research scientists and engineers; and Tau Beta Pi, an engineering honor society. He also was a Fellow of the Institute of Electrical and Electronics Engineers (IEEE).

Weber had a 25-year career with Rockwell Collins, now Collins Aerospace, before becoming an ECpE professor in 1988. At Iowa State, he worked with the Microelectronics Research Center (MRC) and the Analog and Mixed-Signal VLSI Design Center and was named the David C. Nicholas Professor, a title he held from 2002-09. Weber received the Warren B. Boast Undergraduate Teaching Award three times, in 1996, 2002 and 2005. He retired from ISU in 2010 but stayed active in the department, continuing his passion for research and mentoring young engineers as professor emeritus until his death.

"Professor Weber was a valuable colleague. He and I came ISU concurrently in the late 1980s from industry, he from Rockwell and I from Polaroid. The two of us together worked to make the Microelectronics Research Center into a productive laboratory for new electronic and optical devices," said Vikram Dalal, Anson Marston Distinguished Professor and Thomas M. Whitney Professor in Electrical and Computer Engineering. Dalal is also the director of the MRC.

"Early in his career at ISU, Dr. Weber was instrumental in the work at MRC on new sensor devices based on thin film resonators. Dr. Weber also obtained significant donations of research equipment from industry to MRC, which has benefited many students. Many graduate students and P&S [professional and scientific] scientists worked with him and benefited greatly from his exceptional knowledge in the field of microwave devices and circuits," Dalal said. "In addition to his work at Iowa State, Dr. Weber also volunteered in Zambia (in Africa) to improve the education and health facilities

in that country. He was always willing to help everyone, and we all benefited greatly from his knowledge, wisdom and friendship."

We received several memories from Robert Weber's friends and colleagues, which we are happy to share below.

"Bob and I worked on many joint projects at the Microelectronics Research Center and in the EE Department. I knew him from his days at Collins Radio (now Collins Aerospace) in Cedar Rapids. He was a real hardware engineer's engineer. He was also a pack rat like me, maybe worse. He had shelves and shelves of test equipment and parts in his lab. I was cleaning out my office in preparation for my move to become ECE Department Head at the University of Minnesota Duluth in 1998. He arranged with the ISU EE powers-that-be to trade his old office for mine; more room, more book shelves, and more windows. I stacked piles and piles of journals, technical magazines, textbooks, lab stuff, and parts outside my office in the hallway since students like to sort through the materials and take what they want. After many hours of backbreaking labor, I had finished the cleaning, and Bob stopped by and asked, 'What are you going to do with that stuff?' I replied that my moving allowance was such that I couldn't take it all with me. He started going through the piles of stuff and finally said, 'This is all good stuff. Don't throw it away. Let's move it back in to my new office.' We did, and hopefully the floor didn't collapse."

—Stanley Burns, Professor and former Department Head of Electrical Engineering at the University of Minnesota Duluth; former Associate Dean of the UMD Swenson College of Science and Engineering; former Professor of Electrical and Computer Engineering at Iowa State University

"I have had the fortune of a long and productive association with Dr. Weber. At the time I joined the ISU ECpE Department in 2002, sensor networks were coming up the research horizon. Being in Iowa, it occurred to me that making sensors for agriculture may be cool, although I had little idea at that time. I started thinking and reading about the problem, putting a team together, and sending out the ideas for funding as early as 2003, eventually winning the first award on the topic from NSF in 2006. At this time, I was on the Dept. P&T committee, chaired by Dr. Weber. Our hallway interactions about our ongoing project made it clear that Dr. Weber would be the best addition to take our project to a next level. Dr. Weber became a CoPI in a second incarnation of the project, which started in 2009, and thus began our close association of weekly meetings with joint students. Although he retired a year later in 2010, he and I enjoyed the project and our collaboration. He continued to be on campus on a weekly basis, implementing the project ideas and mentoring the jointly supervised Ph.D. students. This continued for nearly 10 years, and until the week before his sudden departure. Our last research interaction was on Nov. 15, 2018, the Thursday before the Thanksgiving week, the week in which he left us. Over this period, he and I were successful in getting two additional external (NSF) and two additional internal (RIF) funding, completed the co-supervision of two Ph.D. students, and a third in progress on the respective topics: A first-of-a-kind in-soil wireless moisture and salinity sensor (by Gunjan Pandey, now with Skyworks), whose publication (2014) and patent (2018) together have already been cited 157 times; a broadband and broad-amplitude motion energy harvester (by Kanishka Singh, joined NextEra Energy, now with his own startup) — Dr. Weber thought of the idea that perhaps the earth movement from thunder could be used to supplement the power requirements for the in-soil sensors, which was published in 2015 and its patent was approved recently (Oct. 2018); and an impedance spectroscopy based in-soil nutrient measurement approach (by Bhuwan Kashyap) — an external proposal is pending on this idea. Dr. Weber helped with the

electronics portion of a fourth Ph.D. project, a first-of-a-kind soil nutrient sensor, published in 2018 with its patent under review. All these works were immediately noticed by several industries in the ag sector, and he and I made numerous trips and presentations to different industries, one of which signed options licensing agreements for two of the patents (soil moisture and soil nutrient sensing, respectively). The agri-sensor work is ongoing and has also branched into biosensing and environmental sensing. Our first sensor work (of in-soil moisture and salinity) was also noted by Texas Instruments, a leading electronics industry, which invited us for collaboration on new projects and has awarded gift funding for supporting the collaboration. Dr. Weber has been a father figure to our sensors related research, and he will remain forever a guiding force for our group as we carry forward his legacy. He is among the finest scholars and persons I have had the fortune to interact with and learn from. May he always keep smiling.

—Ratnesh Kumar, Murray J. and Ruth M. Harpole Professor in Electrical and Computer Engineering at Iowa State University

"Dr. Bob Weber hired me in 1980, as a fresh-out electrical engineer for the Microwave Technology Department of the Advanced Technology and Engineering Group of Rockwell International (formerly Collins Radio). Bob had already achieved legionary status within the company at that time. It was a privilege to be his mentee and collaborate with him. What impressed me the most was Bob's ability to take the somewhat disparate (at the time) sub-disciplines of electrical engineering, such as antennas, microwave circuits, electromagnetics, control systems, analog circuits, digital circuits and digital signal processing, etc., and uniquely synthesize this deep knowledge to cleverly solve microwave technology challenges. Rob was a true renaissance man and an 'out-of-the-box thinker' before this term became popular."

—Jim West, Technical Fellow, Antenna & RF Systems/Mission Systems/Advanced Technology Engineering at Collins Aerospace

"Dr. Weber is such a great educator and meticulous engineer that I and many other students have had lifelong benefits from his knowledge, experience, diligence and wisdom. I got to know Dr. Weber long before I officially became his student. I was in Dr. Udpa's group at the beginning, and every day I passed Dr. Weber's office and labs on the 3rd floor of Durham Center. When he first spotted me, he would greet me with a smile: 'Ha... Another new student.' He then introduced himself and asked for my information, and said, 'You may take full use of our labs.' At that moment, my thought was, wow, this professor must be very good at soldering stuff. Of course later I learned he was from Rockwell Collins before becoming a professor, and we chatted more in elevator, on hallway, in offices, and I got more and more respect for his passion in teaching and experimenting. So when the opportunity came for me to change a group, I stepped in his office and asked if I could be his student to finish my degree, and he smiled and said, 'OK, then come in!' Only with direct daily interaction with Dr. Weber could I truly understand how he dedicated himself in teaching and training curious yet sometime careless youngsters like me into creative and disciplined engineers. I remember in his Microwave Engineering class, there's a lab session for amplifier design; I thought I put every component correct, but just no output. While I was frustrated not being able to find out why, he asked me, 'Did you put the bias correctly?' I said, 'Yes, I have the right voltage here.' He said, 'Are you sure? Where is your DC-blocking capacitor?' I said, 'It's right there... Oh my God! It's shorted!' His response: 'As an electrical engineer, a short is an unforgivable mistake... You need to be very careful with your equipment and components. Don't let that happen ever again.' Years have passed, but his soft yet very firm words, every one of them, are still hanging vividly in my ears. After leaving Ames and Dr.

Weber with my Ph.D. in 2004, I have moved from east coast to west coast while pursuing my career. What I've learned from him is invaluable with me all the time. His faith in God, love for family, fascination for engineering and passion for perfection are priceless treasures for every one of us. May he rest in peace, and may his family find comfort knowing that he is home. God Bless."

—Jie Long, Iowa State Ph.D. '04

"What I remember most about Dr. Weber is the incredible passion he had for teaching and helping students learn. He was always willing to stay after class to answer questions and clarify understanding. He was one of the best at teaching the theory and then teaching how to apply it in the real world. The classes that I took from Dr. Weber were among the most valuable of any classes in my undergraduate and graduate programs. His passion for microwave electronics inspired me to pursue a master's degree focused in that area, and I had the good fortune of being a teaching assistant for him. Without question, he had a big impact on the success of my career, and I am very saddened to learn of his passing."

-Joe Ellerbach, Iowa State BSEE 1990 and MEngEE 1991

"Robert Weber's mentorship as professor went above the bar and can be witnessed by numerous students in the industry, making meaningful impact to everyone's daily life. He believed in the concept of 'give man a fish, you feed him for day; teach man to fish, you feed him for lifetime.' I was recently asked how I derive my ideas. My reply was that an idea is formed by culmination of previous experience. Dr. Weber was a significant experience for numerous amounts of students. Most recently, I had a chance to attend a distinguished lecture by one of Robert's first students, Charles Campbell. We joked about how Robert used to compare devices physics to farm activities, such as cow drinking water from bucket. Robert Weber truly cared about Iowa as a community and in terms of economic success. A significant amount of his research activities centered on improving Iowa's small and large businesses."

-Shannon Wanner, Principle Design Engineer

"Bob had a large impact on my career and my life. As my manager at Rockwell Collins he taught me several lessons and was a great example. I can still clearly recall the day he reviewed my VCO design and said, "this is acceptable, but I believe you can do a much better design." This motivated me to improve my work, not just on this design, but to always consider how I could do better and if in fact I had done my best. Bob lived a Godly life and from this I could see how a leader and manage could be effective while at the same time be respectful and caring toward others. Bob was the EE PHD who was amazing at translating theory to practice and able to communicate the theory and practice to others. I am always thankful that I had the privilege to work with Bob."
—James Y.

"Bob was a great human being, a great colleague, a great educator, and always willing to collaborate and help. At multiple occasions, I had opportunity to work with him on different projects, multiple senior design groups, research projects, setting up of High Speed System Engineering Laboratory, and dealing with high frequency signals in optical and wireless (networking) circuit applications. Whenever any of my students needed help where Bob had expertise, it would not be surprising to see Bob working in laboratory with them trying to debug their circuits, teaching them how they must have been designed correctly, and helping them make progress. Bob maintained his cool irrespective of any siltation. I have never seen him get agitated about anything al all. As a colleague, it was always

pleasure to work with him. When I heard of his passing away, it was a big shock. Just about a month ago, I was with him in a PhD defense and had chance to chat about life after his (really not) retirement. And he was describing to me his plans for the holiday season. The lesson on unpredictability of life got reinforced once again."

—Arun Somani, Phillip and Virginia Sproul Professor in Electrical and Computer Engineering and Anson Marston Distinguished Professor and Associate Dean for Research, College of Engineering