IN MEMORIAM  
WILLIAM C. DUESTERHOEFT

William C. Duesterhoeft was born December 10, 1921, in Austin, Texas, and died June 14, 1996, after completing the 17th hole of the Great Hills Golf Course in Austin. Dusty's passing marked the end of an era for the Department of Electrical and Computer Engineering of The University of Texas at Austin.

Dr. Duesterhoeft spent 48 of his 74 years in the Department of Electrical Engineering at the University. This accounting neglects the times he came on campus as a teenager to see the Annual Electrical Engineering Power Show. He matriculated in 1939 and graduated with a BSEE in January 1943. He took a job with General Electric Company in Schenectady, New York, where he did design and development work on a mass spectrometer for the Manhattan Project and on an airborne radar for controlling antiaircraft guns. He was impressed with the quality of the technical staff at GE and was proud of his contribution to the war effort while there.

Dr. Duesterhoeft returned to Austin in 1946, and taught as instructor and assistant professor while working on a master's degree, which was awarded in 1949. His master's thesis was "A Simplified Method of Determining Instantaneous Currents and Voltages of an Ideal Synchronous Machine During Unbalanced Short Circuits," written under Professor Edith Clarke. In 1949 he married Doris Mahoney, a staff member in the registrar's office. They moved to Pasadena, California, where he entered the graduate program in electrical engineering at California Institute of Technology. Dr. Duesterhoeft's research at Cal Tech in high voltage and electric arc phenomena resulted in a PhD in 1953. His dissertation, written under the supervision of Professor G. D. McGann, was entitled "Temperature Measurements of Large Power Arcs and the Relation of Temperature to Dielectric Recovery."

From 1952 to 1954, Dr. Duesterhoeft was employed by General Dynamics in Fort Worth, Texas, and worked on digital processor applications to reconnaissance systems. In the spring of 1954, he was a lecturer at Southern Methodist University. He returned to UT Austin as associate professor that fall. He was promoted to professor in 1961 and became professor emeritus in 1995. Except for brief research appointments at Oak Ridge National Laboratory and the General Atomics Division of General Dynamics, Dr. Duesterhoeft gave himself fully to teaching, research, and administration in the department until he retired in 1992. In retirement, he continued to teach two courses per semester through May 1996.

Dr. Duesterhoeft's teaching contributions were many and varied. He taught courses in electric power, signal analysis, circuit theory, electronics, information theory, electromagnetics, control theory, plasma engineering, and advanced engineering mathematics. His teaching style was to come to class well prepared, but always ready to think through a topic on his feet as he presented the material. His goal was to engage the class in the development of the topic and he was not adverse to wandering a bit if an interesting question came to light. Among the teaching awards Dr. Duesterhoeft received were the Convair Award for Excellence in Engineering Teaching (1958), The University of Texas Student Association Teaching Excellence Award (1961), and the Student Engineering Council Teaching Award (1977). Over the years Dr. Duesterhoeft supervised 44 master's and 12 doctoral students and served as reader for many other students. He published 29 refereed articles and 39 other publications, and was awarded two patents.
Dr. Duesterhoeft's research and consulting interests were equally diverse. He was interested in traditional electric power engineering topics and in the latest developments in information-based engineering. He published scholarly papers and research reports on electric machines and power systems, electromagnetic waves, instrumentation techniques, plasma engineering, radar, and circuit theory. In 1963 he initiated a research program with the Texas Atomic Energy Research Foundation that led to an institutional grant to the University for controlled nuclear fusion research. Dr. Duesterhoeft also worked with Dr. A. A. Dougal to obtain the Department of Defense Joint Services Electronics Program in 1964. He was associated with Drs. F. E. Brooks and Archie W. Straiton in the research program in electromagnetics at the Electrical Engineering Research Laboratory, and also with Drs. H. W. Smith and Francis X. Bostick in electric well logging for petroleum exploration and production.

Dr. Duesterhoeft’s contributions to the faculty and students of the department as an advisor and administrator were significant over many decades. Although he was never chairman, Dr. Duesterhoeft "ran" the teaching program of the department for many years. He negotiated teaching assignments, assigned graders and teaching assistants, managed the registration process, produced the course schedule, and oversaw the faculty advising system, doing much of the detailed advising himself. His door was always open, and he always had time to help someone or for a good story. His contributions to student advising were recognized by a Certificate of Merit from the National Academic Advising Association in 1985.

Professor Duesterhoeft was a member of numerous honorary and professional organizations: Phi Eta Sigma, Eta Kappa Nu, Tau Beta Pi, Sigma Xi, the American Institute for Electrical Engineers, the Institute for Radio Engineers, the American Physical Society, the National Panel for the Engineering Council for Professional Development, the American Society for Engineering Education, and the Institute for Electrical and Electronics Engineers, which elected him a Life Fellow. He was a registered professional engineer in Texas, and consulted with many industrial organizations. He was listed in Who's Who in Engineering and American Men of Science.

Dusty was a strong family man. He was fond of his many relatives around the Austin area. He was devoted to his wife. He was very proud of the achievements of his daughter, Dr. D'Ann Duesterhoeft, who graduated from the electrical and computer engineering department and went on to become a doctor specializing in anesthesiology. D'Ann is married to Dan McGraw, M.D., and is the mother of Meridith and Madeline McGraw.

Dr. Duesterhoeft was an active Lutheran all of his life. He served St. Martin's Lutheran Church both as trustee and president. His Christian faith was sincerely held and expressed itself in his personal integrity and willingness to serve where needed.

This memorial resolution was prepared by a special committee consisting of Professors Francis X. Bostick (chair), John R. Cogdell, Edward J. Powers Jr., and Baxter F. Womack.

Distributed to the Dean of the College of Engineering, the Executive Vice President and Provost, and the President on April 19, 2001. Copies are available on request from the Office of the General Faculty, FAC 22, F9500. This resolution is posted under “Memorials” at: http://www.utexas.edu/faculty/council/