The special committee of the General Faculty to prepare a memorial resolution for George B. Thurston, professor emeritus, mechanical engineering, has filed with the secretary of the General Faculty the following report.

Dean P. Neikirk, Secretary
General Faculty and Faculty Council

IN MEMORIAM
GEORGE B. THURSTON

George Butte Thurston, professor emeritus of mechanical engineering, passed away on January 19, 2013, at the age of eighty-eight. George was born on October 8, 1924, in Austin, where he spent much of his youth. He was fond of extended visits to his grandfather's ranch along the Pedernales River in the Texas Hill Country, where he enjoyed riding horses and watching the cowboys work at their various tasks. He could recall many colorful characters from his time on the ranch—both human and animal—as well as participating in family reunions, barbeques, and fish-fries.

Upon graduating from high school at the age of sixteen, George entered The University of Texas at Austin to study physics. He went on to earn his Ph.D. in 1952, specializing in analysis of the rheological properties of polymeric and biological materials. Upon graduation, he spent one year each at the University of Wyoming and the University of Arkansas as an assistant professor of physics, before moving to Oklahoma State University (OSU) as an associate professor of physics in 1954. At OSU, he was promoted to full professor in 1959.

George returned to Austin in 1968 to join the Department of Mechanical Engineering as a full professor. He was involved in both teaching and research in the Materials Science and Engineering Program and in the Biomedical Engineering Program, both of which, at that time, were emergent academic units providing educational and research opportunities for graduate students. George continued in this position at UT Austin for the next thirty-one years until his retirement in 1999.

His groundbreaking research on the rheological properties of polymeric and biological fluids, particularly blood, brought him worldwide acclaim. He was a pioneer in discovering, measuring, and describing the viscoelastic properties of many different biological materials, including blood and synovial fluid. As he was a pioneer in his field, there was no existing experimental apparatus for performing his rheological measurements. Therefore, George designed and built many unique items of apparatus that were used by himself and his students in his laboratory. Although George was a world leader in his field of research and he always mentored a team of graduate students, unlike many advanced academics, he maintained a very hands-on profile in his laboratory. George was as likely to be found working in his lab as in his faculty office, and he always took great pleasure in being able to explain the governing principles foundational to whatever experiment he was conducting.

The rheological discoveries made by George led to a high level of respect within the international biorheology community, particularly since they were related directly to the understanding, diagnosing, and treating of various human diseases. In some respects, he was better known at major research universities and medical schools in Europe than among his engineering colleagues at UT Austin. He had a self-effacing personality and was disinclined to blow his own horn. His practice was to allow his science to speak on his behalf. Thus, since biomedical engineering was only a developing field of study at UT Austin during the 1970’s, 1980’s and
1990’s, the impact and significance of his research was under-appreciated by many of his local faculty colleagues.

Among George’s most significant recognitions was an Alexander Von Humboldt Senior Scientist Award to join the world-leading biorheology laboratory at the Helmholtz-Institut at the RWTH Aachen, Germany, in 1975. He was frequently invited to present honorific lectures at European universities, and he was fluent in both French and German. Throughout his career, he traveled extensively in Europe, researching and lecturing at various universities in France, Sweden, and Germany, and he felt a deep personal connection to Switzerland and the Rhineland, places not only rich in history but with connections to his own ancestral roots.

George authored many landmark publications in the field of rheology, particularly dealing with viscoelastic phenomena, with over a hundred journal papers, which were consistently of high quality and meticulously written. He was elected a Fellow of the Acoustical Society of America and of the American Physical Society in addition to the Humboldt Award he had received. He worked as a consultant for numerous government agencies and private companies, and he remained very active in consulting long after his retirement from The University of Texas at Austin, using a laboratory he had set up in his home.

Professor George Thurston was a highly innovative researcher in the field of biorheology whose work was known and appreciated around the world. He contributed to establishing biomedical engineering as a discipline at UT Austin and to building the reputation of the University for research excellence in this field.

This memorial resolution was prepared by a special committee consisting of Professors Kenneth R. Diller (chair), David L. Bourell, and John R. Howell.

Distributed to the dean of the School of Engineering on November 13, 2013, and posted under “Memorials” at http://www.utexas.edu/faculty/council/.