VITELMO VICTORIO BERTERO, a world-renowned expert in earthquake engineering and design of structures, passed away at age 93 in his Berkeley home on October 24, 2016.

He was born May 9, 1923, in Esperanza, Argentina, in the province of Santa Fe. He completed high school in his hometown and enrolled in the Department of Civil Engineering at the Faculty of Applied Sciences at the National University of the Littoral in Rosario, Argentina. There he completed his undergraduate degree in 1947 after his studies were interrupted twice by military service.

Following a stint in professional practice he was motivated by the devastation caused by the San Juan, Argentina, earthquake of 1944 to pursue advanced studies in the United States and enrolled in the doctoral program at the Massachusetts Institute of Technology (MIT) in 1953. There he advanced the state of understanding for blast-resistant structures through ingenious experimentation and careful analysis, obtaining master’s and doctoral degrees in civil engineering in 1955 and 1957.

After a brief postdoctoral stay at MIT he arrived at the University of California, Berkeley, as a lecturer in 1958. He advanced to associate professor in 1960 and full professor in 1966 in the Department of Civil Engineering. He retired from
the university in 1991, but continued mentoring graduate students and advancing the state of the art and practice through research, consulting, and service to professional organizations until his death.

At Berkeley, Bertero dedicated himself to advancing understanding of the response of structures to earthquakes and developing effective means for improving the earthquake resistance of both new and existing structures in zones of high seismic risk. With colleagues in the Division of Structural Engineering and Structural Mechanics of the Department of Civil Engineering, he developed innovative experimental methods for assessing the hysteretic behavior of structural components for steel, concrete, and steel-concrete composite structures.

He was a significant force behind not only the improvement of the experimental facilities on campus but also the funding and establishment of a world-class experimental facility for earthquake engineering research at Berkeley’s Richmond Field Station, which started operation in 1971 with the world’s largest shaking table. This experimental facility formed the core of the world-renowned Earthquake Engineering Research Center1 at UC Berkeley, and Bertero was its director in 1988–90.

Bertero used the shaking table to investigate the response of multistory scaled models of steel, reinforced concrete, and steel-concrete composite structures in major US-Japan research collaborations. He also conducted several important large-scale laboratory experiments that, combined with his shaking table work, propelled advances in the design of earthquake-resistant structures in many countries.

He traveled tirelessly around the world to collect firsthand postearthquake information of structural damage and to conduct in-depth studies of significant structural failures, most notably the spectacular failure of the first-story columns of the Olive View Hospital in Los Angeles due to the 1971 San Fernando earthquake. His investigation of failures of bridge structures after the 1989 Loma Prieta earthquake earned him

1 Now the Pacific Earthquake Engineering Research Center (PEER)
the 1990 Man of the Year Award by the *Engineering News-Record*, only the second researcher to be so honored in the 25 years of the award. And his sustained efforts for improving the earthquake-resistant design of structures earned him a position among the “Top 10 Seismic Engineers of the 20th Century” by the Applied Technology Council and *Engineering News-Record* in 2006.

An inspiring and demanding teacher, Bertero was a major contributor to the curriculum in earthquake engineering at Berkeley and developed several new courses, most notably a course on earthquake-resistant design that is now the model for similar curricula around the world. The many workshops and short courses he offered internationally, especially in Latin America, enlightened thousands of engineers with the latest developments in earthquake-resistant design and had a profound influence in the development of modern earthquake design standards in many countries.

During his 33 years of teaching at Berkeley, Bertero mentored many students and visitors. They speak about his passion for the subject and his meticulous attention to the understanding of physical behavior from experiments, field observations, and first principles of mechanics. Many former students and associates have gone on to distinguished and influential careers in government agencies, academia, and professional practice, and carry on his teachings about rational methods for earthquake-resistant design.

Bertero also served many national and international societies during his long and distinguished career, most notably as chief technical advisor to the UNESCO mission in Japan in 1971. He was elected to the NAE in 1999 (as a foreign associate), the Argentine Academy of Engineering in 1989, and the Argentine Academy of Sciences in 1971. He held honorary professorships at and honorary degrees from many universities in Latin America, including the National University of Rosario, University of Buenos Aires, and University of Mendoza in Argentina; the University of Los Andes, Mérida in Venezuela; the University of Guayaquil in Ecuador; and the National Autonomous University of Mexico (UNAM). In 1986
he was also awarded the Extraordinary Chair of Javier Barrios Siera at the UNAM.

In addition to the Berkeley Citation in 1991, he was the recipient of the Housner Medal (1995) from the Earthquake Engineering Research Institute; the Nathan M. Newmark Medal (1991), J. James R. Croes Medal (1989), and Moisseiff Award (1987) from the American Society of Civil Engineers; the A. Anderson Award (1989) and Raymond C. Reese Research Award (1987) from the American Concrete Institute; the T.R. Higgins Lectureship Award (1990) from the American Institute of Steel Construction; the First International Gold Medal Eduardo Torroja (1989) from the Building Sciences Institute of Spain; and the ROSE School Prize, Italy (2010).

In his retirement, Bertero organized and contributed chapters to *Earthquake Engineering: From Engineering Seismology to Performance-Based Engineering* (coedited with Yousef Bozorgnia; CRC Press, 2004). The book brought together leading experts in the field, including several colleagues and former students from Berkeley, and has become a standard reference on the subject.

Vitelmo Bertero is survived by his wife, Nydia A. Bertero; children Maria Teresa Bertero-Barcelo, Edward T. Bertero, Robert C. Bertero, Mary Rita Algazalli-Sandoval, Adolfo V. Bertero, and Richard A. Bertero; ten grandchildren; and two great-grandchildren.