



Mechanical Engineering
Academy of Distinguished Alumni

Sam Y. Zamrik, Ph.D.

Mechanical Engineering Hall of Fame, 2008

BA, Mathematics, The University of Texas at Austin, 1956

BSME, The University of Texas at Austin, 1957

MS, Engineering Mechanics, Pennsylvania State University, 1961

Ph.D., Engineering Mechanics, Pennsylvania State University, 1965

*Professor Emeritus of Engineering Mechanics,
Pennsylvania State University*

While Sam Zamrik was a freshman at the American University of Beirut, Lebanon, he was encouraged by his Texan teachers to pursue mechanical engineering at The University of Texas at Austin, where he enrolled in 1950. In 1954, he married a Texas sophomore by the name Myrna Ragsdale from Jacksonville in east Texas.

After graduation, Sam joined the Texas Pipeline Co in Houston in 1957 and spent two years in the Middle East, Syria and Egypt dealing with Pipeline and Petroleum construction facilities. While in Egypt, he met the Egyptian oil minister, who received his petroleum engineering degree from Penn State University. This led Sam to pursue graduate work in the Penn State engineering mechanics department in 1960, where he was interested in a project dealing with stress analysis of pressure vessels.

At Penn State, Sam was the director of fatigue and fracture research programs supported by NSF, NASA, Oak Ridge National Lab, Allied Signal, Welding Research Council, and DOE. He developed unique research programs on life prediction concepts due to thermo-mechanical fatigue (TMF), and fracture mechanics under multi-axial stress system for aerospace and utility gas turbine material using aluminide and overlay coating systems to meet higher temperature operation efficiency. The research programs produced more than 25 undergrads and grad students for MS and Ph.D. degrees.

Sam was very active in professional societies: ASM, ASTM, PVRC, ASME, ICPVT, and United Engineering Foundation (UEF), where he held leadership positions such as vice president of UEF, 2014-2017. At ASME, chair of ASME Pressure Vessels & Piping Division 1992; vice president of structures & materials group, 1999-02; editor of pressure Vessels Technology Journal, 1992-05; board of governors 2002-05; ASME president, elected in 2007; and ASME Honorary Life Fellow Member in 2010, in recognition of his advancing Global Outreach and Technical Innovation throughout Europe, Far East, Middle East and South America. As visiting professor at the American University of Cairo, Egypt in 2008, Sam presented a series of lectures on the “Future of Mechanical Engineer and the Global Economy” and “Engineering — A New Dimension”.

Sam was very fortunate to have been recognized by numerous national and international honors, such as Prince Khalifa of Bahrain Falcon Award, ASME Pressure Vessels & Piping Medal, PVP Robert McGrattan Literature award, Outstanding ESM Penn State Alumni, and ASME Dedicated Service Award. ASME renamed the PVP medal as “S.Y.Zamrik ASME PVP Medal”, which became a society medal.

Grateful for the education he received at UT, Sam and his wife Myrna established an undergraduate scholarship for ME students.