

Montana Professional Engineers Hall of Fame

Theodore E. “Ted” Lang, P.E.

Montana Professional License Number 9101PE

- * California Institute of Technology, Pasadena, California – B.S. Mechanical Engineering, 1957
– M.S. Mechanical Engineering, 1958
University of Washington, Seattle, Washington – Ph.D. Engineering Mechanics, 1969
- * Progressively a Research Engineer, Senior Research Engineer and Research Group Supervisor, Structural Dynamics Group, Jet Propulsion Laboratory (JPL), California Institute of Technology 1959 – 1966. Instrumental in the inaugural application of finite element analysis to missile/rocket structural configurations. Member of the team that worked on the Ranger spacecraft that in 1962 obtained the first close-up images of the moon, and of the constitution of the moon surface, essential as a prelude to the manned landing on the moon in 1969.
- * Interest in teaching was kindled at Pasadena City College, Pasadena, California, as a part-time mathematics instructor from 1962 – 1966 while working at JPL.
- * Joined Montana State University in 1969 as an associate professor in the Department of Civil Engineering and Engineering Mechanics. Welcomed by the department head with the comment, “We...look forward to a long, mutually beneficial association with you...;” particularly prophetic words, being promoted to full professor in 1975 and retiring in 2018 after 48 years at MSU. Profoundly impacted the students of the CE Department and the College of Engineering, with this impact extending to the state and region through the thousands of practitioners that had him as an instructor, and the many more that benefitted from programs/personnel he put in place as CE department head.
- * At MSU, turned his mechanics expertise to snow and ice, particularly focusing on avalanche research. Working with colleagues across the campus, their collective efforts gained international prominence, and provided the impetus to an enduring research thrust in snow and ice that continues to be a vital part of MSU’s research portfolio.
- * Civil Engineering department head from 1984 – 1995, during which time:
 - A significant number of faculty were hired who went on to be the Department’s foundation for the next 20+ years.
 - Substantial endowments were established to support the Department’s programs, which will continue to benefit engineering students in perpetuity.
 - A new option within the civil engineering curriculum was formally introduced – Bioresources, focused on water resources and the environment.
 - Two research entities were incubated that have grown into significant and enduring research enterprises at MSU, the Center for Biofilm Engineering and the Western Transportation Institute.
 - Nominated seven distinguished professionals for honorary doctorate degrees awarded by MSU.
 - Established by example an academic culture of quality instruction focused on providing students a strong theoretical foundation coupled with the application-oriented curriculum necessary for them to excel in engineering practice.
- * Long term member of the American Society of Civil Engineers (ASCE), faculty advisor to the MSU Student Chapter of ASCE 1979 – 1989.

Inducted November 7, 2018

Presented by the Montana Society of Engineers

A state society of the National Society of Professional Engineers