



Mechanical Engineering
Academy of Distinguished Alumni

Carl Langner, Ph.D., P.E.

Distinguished Mechanical Engineer, 2015

BSME, The University of Texas at Austin, 1960

MSME, Rice University, 1963

Ph.D., Engineering Mechanics, University of Florida,
1973

Consulting Engineer

Carl Langner and Associates

Carl Langner was born in Brownsville, Texas. After his father died, Carl grew up in Seguin, graduating from Seguin High School in 1956. He was already inventive in his teens, known about town for his shocking machines and motorized bikes and scooters, etc.

Carl attended Texas Lutheran College in Seguin for two years, then transferred to The University of Texas at Austin, where he graduated with a BS degree in mechanical engineering in 1960. His fondest memory at Texas was designing and building a solar furnace that boiled water as it tracked the sun, and which resided on the roof of Taylor Hall for decades afterward.

Carl graduated from Rice University with a MS in ME in 1963, and from the University of Florida with a Ph.D. in Engineering Mechanics in 1973. His MS thesis involved numerical analysis of stress waves in solids, and his Ph.D. dissertation presented a new theory of plasticity for metals.

Carl's work experiences started at Southwest Research Institute in the early '60s, where his projects included blast effects on re-entry ICBMs and anti-slosh baffles for the Saturn Five Rocket that carried the astronauts to the moon.

Carl's career was primarily in the offshore petroleum industry, where he worked as a pipeline engineer with Shell Oil Company for 30 years, and as an engineering consultant for an additional 15 years. His accomplishments at Shell included analysis, design, testing, and installation of deepwater pipelines and risers, subsea flowline connections, steel tube umbilicals, and electrically heated pipelines. He engineered and installed the first pipeline in more than 1000-ft depth, and the first diverless pipeline riser. He authored numerous reports and papers, as well as 34 U.S. patents, covering these various accomplishments.

Carl is a fellow of ASME, member of ASCE, registered P.E. in Texas, received the Distinguished Achievement Award at the Offshore Technology Conference in 1996, and was inducted into the National Academy of Engineering in 1998.

After retiring from the offshore industry in 2014, Carl remains busy by helping to spoil four grandchildren, and by serving on the Thompson School Board in Loveland Colorado, where he and his wife Ann now reside.