James K. Nelson

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James K. Nelson joined the faculty at The University of Texas at Tyler in 2005. At UT Tyler he was the founding chair of the Department of Civil Engineering and instituted the bachelor's and master's degree programs. In 2006 he became the Dean of Engineering and Computer Science.

After receiving his Ph.D. in 1983, Nelson joined the civil engineering faculty at Texas A&M University. He joined the civil engineering faculty at Clemson University in 1989 as Program Director and founder of the Clemson University Graduate Engineering Programs at The Citadel and became Chair of Civil Engineering in 1998. In 2002, Nelson joined the faculty at Western Michigan University as Chair of Civil and Construction Engineering. At Western Michigan he started the civil engineering undergraduate and graduate degree programs and also chaired the Departments of Materials Science and Engineering and Industrial Design.

Before receiving his Ph.D, Nelson worked as a design engineer in industry and taught as an adjunct professor at the University of Houston and Texas A&M University at Galveston. In industry, he was primarily involved in the design of floating and fixed structures for the offshore petroleum industry.

Nelson's primary technical research interest is the behavior of structural systems. For almost 25 years he has been actively involved in evaluating the behavior of free-fall lifeboats and the development of analytical tools to predict that behavior. His research has formed the basis for many of the regulations of the International Maritime Organization for free-fall lifeboat performance. Since 1998, Nelson has served as a technical advisor to the United States Delegation to the International Maritime Organization, which is a United Nations Treaty Organization. In that capacity, he is a primary author of the international recommendation for testing free-fall lifeboats and many of the international regulations regarding the launch of free-fall lifeboats.

Nelson has authored many technical papers that have been presented in national and international forums and co-authored three textbooks. Nelson chaired a national committee of the American Society of Civil Engineers for curriculum redesign supporting the civil engineering body of knowledge. He is actively engaged in developing strategies for enhancing the STEM education pipeline in Texas and nationally, and has testified before the Texas Senate in that regard. He served on a committee of the Texas Higher Education Coordinating Board to develop a statewide articulation compact for mechanical engineering. He also served on the Texas State Board of Education committee preparing the standards for career and technical education. He is currently serving on the Engineering Education Task Force of the National Council of Examiners for Engineering and Surveying.

Nelson earned a Bachelor of Civil Engineering degree from the University of Dayton. He earned the Master of Science and Doctor of Philosophy degrees in civil engineering from the University of Houston. He is a registered professional engineer in four states, a Chartered Engineer in the United Kingdom, and a fellow of the American Society of Civil Engineers. He is also a member of the American Society for Engineering Education and the SAFE Association.