

## The 2007 Distinguished Lecturer:

### **James K. Mitchell, Sc.D. P.E.**

University Distinguished Professor Emeritus  
Virginia Polytechnic Institute



Jim Mitchell received his Bachelor of Civil Engineering degree from Rensselaer Polytechnic Institute in 1951, and Master of Science and Doctor of Science degrees from the Massachusetts Institute of Technology in 1953 and 1956.

He was a professor at the University of California, Berkeley, from 1958 until 1993. He developed courses in soil behavior, soil and site improvement, and foundation engineering. He was Chairman of the Department of Civil Engineering from 1979 through 1984. After retirement from UC Berkeley, he joined Virginia Tech in 1994 as the first Charles E. Via, Jr. Professor in the Department of Civil and Environmental Engineering, was appointed University Distinguished Professor in 1996, and University Distinguished Professor, Emeritus in 1999.

His research activities focused on experimental and analytical studies of soil properties and behavior, admixture stabilization of soils, soil improvement and ground reinforcement, in-situ measurement of soil properties, and mitigation of ground failure risk during earthquakes. He supervised the Ph.D. dissertation research of 74 students, and has

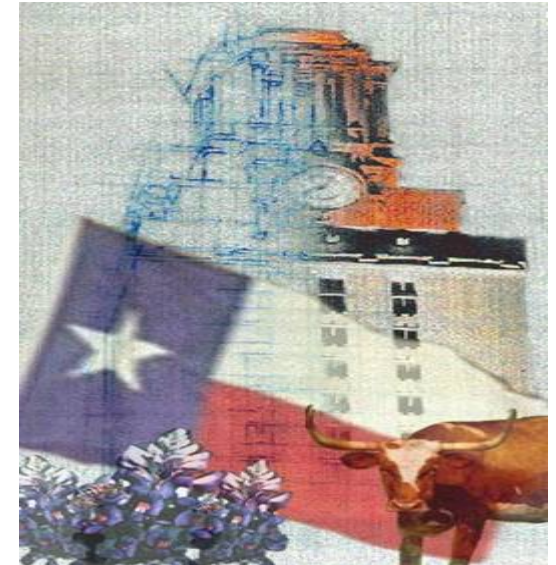
authored more than 350 publications, including three editions of the book, "Fundamentals of Soil Behavior." During the 1960's and early 1970's he served as the Principal Investigator for the Soil Mechanics Experiment that was a part of the U.S. Apollo Moon landing and exploration program.

Dr. Mitchell is a consultant on geotechnical problems and earthwork projects of many types. Recently these have included the evaluation of the seismic safety and design of liquefaction mitigation options for several existing dams, ground improvement for a major bridge replacement project, a stability review board for large mine waste rockpiles, a seismic safety peer review panel for an urban rapid transit system, and ASCE's External Review Panel to review performance evaluations of the New Orleans flood protection system in Hurricane Katrina. He has recently chaired National Academies' studies on peer review of U.S. Army Corps of Engineers water resources projects, managing construction and infrastructure in the U.S. Bureau of Reclamation, and the long-term performance of engineered waste containment barriers.

He is an Honorary Member of the American Society of Civil Engineers and has served on many boards and committees of several professional and technical organizations. He was Vice President of the International Society for Soil Mechanics and Geotechnical Engineering from 1989-1994. Dr. Mitchell has received several awards from the American Society of Civil Engineers, including the Norman Medal (twice), the Middlebrooks Award (5 times), the H. Bolton Seed Medal, the Terzaghi Lecture and the Terzaghi Award, and the 2006 Outstanding Projects and Leaders Award (OPAL) in Education; the Distinguished Teaching Award and the Berkeley Citation from the University of California; the Medal for Exceptional Scientific Achievement from the National Aeronautics and Space Administration, the 2001 Kevin Nash Gold Medal of the International Society for Soil Mechanics and Geotechnical Engineering, and is an International Honorary Member of the Japanese Geotechnical Society. He is a member of both the United States National Academy of Engineering and the National Academy of Sciences.

The University of Texas at Austin  
with  
Fugro  
present the

### ***2007 Lymon C. Reese Distinguished Lecture***



**James K. Mitchell, Sc.D., P.E.**  
University Distinguished Professor  
Emeritus, Virginia Polytechnic Institute

***"Ground Improvement for Mitigation  
of Seismic Risk to Existing Dams"***

**Thursday, March 29, 4:00 p.m.**  
Thompson Conference Center  
University of Texas at Austin

Reception immediately following the lecture

## Honoring:

### **DR. LYMON C. REESE, Ph.D., P.E.**

Professor, Nasser I. Al-Rashid Chair Emeritus  
in Civil Engineering  
Department of Civil, Architectural and  
Environmental Engineering  
University of Texas at Austin

Lymon Reese was born in the hills of southwest Arkansas where his father was an employee of a timber company, a "log scaler." Lymon was the youngest of three children. The family lived in small house consisting of a rail car on a siding and an attached building. Within a few years, the family moved to Murfreesboro where his Father became Tax-Assessor Collector and Lymon and his siblings attended the local schools. Later the family moved to Abilene, Texas, where Lymon completed high school. While in Abilene High School, Lymon worked as a caddy at the Abilene Country Club, beginning a life-long love of the game of golf. He earned fifty cents a round, money that was taken home to help the family. His Father had become ill, the Great Depression bore down, and his Mother kept boarders in the home to help ends meet.

Lymon was Salutatorian of his high school class. He spoke against a *laissez-faire* attitude toward education and argued for training in high school that would help the graduates find a job. He worked as a groundskeeper during the summer to pay for tuition to Abilene Christian College. The depression continued unabated and, with no money to purchase books, he reluctantly gave up college and worked full-time to help his family. In 1939 he took a Civil Service examination and got a job on a land-surveying party at the salary of \$85 a month. His Father had died and his Mother moved with him to the Rio Grande Valley. His surveying team set the stakes for building levees along the River.

Lymon learned surveying, while working as a helper on the team, and left for Birmingham, Alabama, where surveyors were being hired to build an ordnance plant. He convinced the interviewer to give him a job as a Party Chief and worked on the layout and construction of buildings in the plant. He and his

Mother were living in Alabama when Pearl Harbor was attacked. Later they moved for similar work in Oklahoma where he volunteered for the U.S. Naval Construction Battalions (SeaBees). He served as Chief Petty Officer in the Aleutians and Okinawa.

On being discharged, Lymon worked briefly in construction before being accepted at Rice University as a freshman at age 29. He earned 22 semester hours in a fast-track semester and lettered on the golf team. He transferred to The University of Texas where a more flexible degree plan was offered. While a student, he married fellow-student, EvaLee Jett. Their first baby girl arrived in 1949 and EvaLee left her nursing education career to pursue full-time motherhood. After receiving his Master's Degree at Texas, Lymon accepted a position as Assistant Professor of Civil Engineering at Mississippi State University. After a year, he took a leave from Mississippi State and moved with his family (Sally and John now for EvaLee to manage) and went to the University of California at Berkeley for his PhD. His college education was funded by the GI Bill, a fellowship from the Rockefeller Foundation, and a competitive fellowship from the National Science Foundation.

His third child, Nancy, had arrived and, in 1955, the family left Mississippi to accept a position as Assistant Professor at The University of Texas. He spent the remainder of his career at Texas. Dr. Reese is the Nasser I. Al Rashid Chair Emeritus and Professor of Civil Engineering and was Chairman of the Department from 1965 until 1972. He was Associate Dean of the College for Research from 1972 until 1979. He maintains a close relationship with the University and teaches occasionally.

Dr. Reese has done extensive research in the field of geotechnical engineering, principally concerning the behavior of deep foundations. He pioneered in performing field studies of instrumented piles and developed analytical methods now widely used in the design of major structures. He is author or co-author of 160 papers in refereed journals and 282 technical reports. He is the senior author of two recent books on foundation engineering. He has presented over 450 invited lectures in the United States and abroad.

Dr. Reese was selected in 1986 by the American Society of Civil Engineers as Terzaghi Lecturer, and he received the Terzaghi Award in 1983. He was chosen

by his peers to receive the Joe J. King Professional Achievement Award from the College of Engineering, The University of Texas, in February, 1977. He was invited by the Boston Society of Civil Engineers Section of ASCE to present the 2004 Arthur Casagrande Memorial Lecture in Boston.

Dr. Reese has long been active in ASCE and was elected Honorary Member in 1984. He has held various offices in the Texas Section and was President of the Texas Section in 1968-69. For several years he served as a member of the Executive Committee, Geotechnical Engineering Division, and was Chairman in 1986-87. He is a registered professional engineer in Texas.

Dr Reese lost his beloved EvaLee, a skilled and prolific amateur artist, to cancer in 2003. He continues to be actively involved with his three children, 11 grandchildren and great-grandchildren whose numbers are growing yearly. He also continues to enjoy a weekly game of golf, often with his son and some of his grandsons. Most of his time at present is spent at Ensoft, Inc., a distributor of engineering software, where he is principal. Some of his consulting activities are carried out through Lymon C. Reese & Associates, a wholly owned subsidiary of Ensoft.

Significant honors received by Dr. Reese include the Offshore Technology Conference Distinguished Achievement Award for Individuals in 1985, and the Distinguished Graduate Award of the College of Engineering, The University of Texas, in 1985. He was elected to membership in the National Academy of Engineering in 1975. He received an Honorary Doctorate from the Civil Engineering Institute of Bucharest, Romania, in 1994.

During his 33-year career at The University of Texas, Dr. Reese supervised 71 graduate students who received the M.S. or PhD in Civil Engineering. EvaLee frequently worked with the wives and children of these students, making them welcome in the United States, assisting them with housing, shopping, and local resources. Twelve of the students became professors at universities worldwide, and at least eight established businesses that have hundreds of employees. Many of the students and their families maintain ongoing correspondence with Dr. Reese.