## James Michael Duncan

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J. Michael Duncan received his BSCE from Georgia Tech in 1959, his MSCE from Georgia Tech in 1962, and his PhD from the University of California, Berkeley in 1965. He is a registered professional engineer in California and Virginia.

He joined the faculty of the University of California at Berkeley in 1965, and was promoted to Professor of Civil Engineering there in 1973. He was responsible for developing and teaching undergraduate and graduate courses in the area of geotechnical engineering, and served as the chairman of the Geotechnical Group for several years. In 1984 he moved to Virginia Tech, where he was appointed the W. Thomas Rice Professor of Civil Engineering. In 1987 he was appointed University Distinguished Professor.

At Virginia Tech he has developed and taught undergraduate and graduate courses in geotechnical engineering, dealing with soil mechanics, foundations, and earth dams. He served as the Coordinator of the Geotechnical Engineering group from 1984 through 1993.

His principal research interests have been slope stability, soil-structure interaction, design and analysis of foundations, strength and deformation properties of soils, finite element analyses of stresses and deformations in earth masses, and seepage through soil. He has authored more than 200 publications in the area of geotechnical engineering, including engineering manuals on settlement studies, slope stability, design of buried culverts, shallow foundations, driven pile foundations, drilled shaft foundations, retaining walls and bridge abutments. He has also developed computer programs for analysis of stresses and movements in dams, soil-structure interaction, consolidation settlements, retaining wall stability, design of buried culverts, design of anchored bulkheads, and analysis of lateral loads on deep foundations.

Since 1965 he has served as an independent geotechnical engineering consultant on projects in the United States, South America, Europe, the Middle East, Japan and New Zealand. His current consulting work includes serving as a member of the Geotechnical Advisory Board for the Panama Canal (since 1986); as a consultant to PG&E reviewing the safety of some of their dams in the Sierras; as a reviewer for Geomatrix for design of new port facilities in Oakland California, and as a consultant for design of the I95-Route 1 interchange in Alexandria, Virginia. Recent projects include serving as a consultant to the Bogota, Columbia Water Board on settlement and remedial measures to protect the 60-inch diameter high-pressure water main at Calle 114 in Bogota, serving on the consulting board for Seven Oaks Dam (for eight years), serving as a consultant for the design of La Esperanza Dam in Ecuador (for five years), as a reviewer of the Corps of Engineers design for mitigation of stability and seepage problems at the Cross Lake Dikes in Minnesota; as a reviewer of the design for expansion of the Cherry Island Maryland Landfill over soft clay; as a consultant for the stabilization of the high loess bluffs in Natchez, Mississippi, as a member of the review board for the Dam Safety Major Rehabilitation Project for Oahe Dam, as a member of the Independent Surveillance Board for Merrill Creek Dam (since 2000), as chief author and editor of the new U. S. Army Corps of Engineers Slope Stability Manual (2002), as a member of the FERC team to investigate the technical causes of the failure of the Silver Lake fuse plug in Michigan, as a member of the U. S. Bureau of Reclamation Board for review of the safety of Mormon Island Dam in California, as a consultant to DTA for review of the Duke Power Bridgewater project in North Carolina, as a consultant to Intecsa for review of the failure of Aznalcollar Dam in Spain, as a consultant to URS for Newark Dam, as a consultant to GEOST for geotechnical engineering of the British Petroleum LNG project in Tangguh, Indonesia, and as co-leader of the team investigating failures of floodwalls and levees in New Orleans during Hurricane Katrina.

He was elected to the National Academy of Engineering in 1985, and was elected to the grade of Honorary Member of ASCE in 1999. He has served professional societies as Chairman of the Geotechnical Group of the San Francisco Section of the American Society of Civil Engineers (ASCE), as Chairman of the Embankment Dams and Slopes Committee of ASCE, as Chairman of the Organizing Committee for the ASCE specialty conference "In Situ 86," and as Chairman of the Executive Committee of the Geotechnical Division of ASCE. He has served as a member of the Geotechnical Board of the National Research Council, and as Chairman of the Transportation Research Board Committee on Soil-Structure interaction. He was the chairman of the organizing committee for the Geo-Institute conference “2001: A Geo-Odyssey,” held at Virginia Tech in June 2001.

He has received three Outstanding Faculty Awards at UC Berkeley, the George Westinghouse national teaching award from the American Society for Engineering Education, four College of Engineering Teaching Excellence Awards at Virginia Tech, and the Department of Civil and Environmental Engineering Alumni Teaching Excellence Award in 2002.

He presented the Laurits Bjerrum Memorial Lecture in 1991, the Terzaghi Lecture in 1991, the Jack Hilf Memorial Lecture in 1997, the Arthur Casagrande Memorial Lecture in 1998, the George Sowers Memorial Lecture in 1999, the Spencer J. Buchanan Lecture in 1999, the Mueser-Rutledge Lecture in 2000, the Cullen Distinguished Lecture at the University of Houston in 2002, the Stanley Wilson Lecture in 2003, and the Kenneth L. Lee Memorial Lecture in 2004.

He has been awarded the Collingwood Prize, the Huber Research Prize, the Middlebrooks Award (in 1980, 1987, and 2003), the Wellington Prize, the State-of-the-Art Award, and the Bechtel Pipeline Engineering Award from ASCE, was named the Outstanding Engineering Educator in Virginia in 1994, and received the Terzaghi Award from ASCE in 2003.