

A.P.S. Selvadurai

Dr. A.P.S. Selvadurai is currently *William Scott Professor* and *James McGill Professor* in the Department of Civil Engineering and Applied Mechanics, McGill University, Montréal, Canada. Born in Sri Lanka, he received his undergraduate education in civil engineering at Brighton Polytechnic, U.K., and pursued graduate studies in Soil Mechanics at Imperial College of Science and Technology, London University and Applied Mechanics at Stanford University. In 1971 he obtained his PhD degree in Theoretical Mechanics from the University of Nottingham, under the tutelage of the eminent continuum mechanist Professor A.J.M. Spencer FRS, for research in the area of “*Non-linear Elasticity*”. In 1986 the University of Nottingham awarded him its first ever research DSc in Theoretical Mechanics for research into *Mathematical Modelling of Problems in Geomechanics and Elastomechanics*. He joined the Department of Civil Engineering at Carleton University, Ottawa, Canada in 1975 as Assistant Professor, became Professor in 1981 and Head of the Department from 1982 to 1991. In 1993, he was invited by McGill University to become Chair of the Department of Civil Engineering and Applied Mechanics, a position he held till 1997. He has held Visiting Professorships at the Division of Theoretical Mechanics, University of Nottingham, U.K., Universität Stuttgart, Germany, The Laboratoire 3S, Université Joseph Fourier, Grenoble, France; The Department of Civil Engineering, University of Canterbury, Christchurch, New Zealand; The Department of Civil and Structural Engineering, Polytechnic University, Hong Kong, China; The School of Civil Engineering, University of New South Wales, Sydney, Australia, Département de Génie Civil, École Polytechnique Fédérale de Lausanne, Switzerland and The Department of Civil Engineering and Geosciences of the Technical University Delft, The Netherlands.

In 1998, Dr. Selvadurai received the *Humboldt Forschungspreis* (Humboldt Foundation of Germany), given to internationally acclaimed scientists and engineers. In 2000, he became the first civil engineer to be awarded the *Killam Research Fellowship* (Canada Council for the Arts), one of Canada’s most distinguished research awards, recognizing his outstanding research record and proposals for continuing research. In 2001 he was awarded the Inaugural *John Booker Medal* (International Association for Computer Methods and Advances in Geomechanics). In 2003 he received the prestigious *Max Planck Forschungspreis* in the Engineering Sciences.. In 2007, he was awarded the prestigious *Killam Prize in Engineering* from the Canada Council for the Arts and the Gold Medal of the Canadian Congresses of Applied Mechanics.

Dr. Selvadurai is a recognized world leader in continuum mechanics, theoretical, computational and experimental geomechanics, environmental geomechanics and applied mathematics. His research includes the mechanics of elastic media undergoing large deformations, fracture mechanics, micromechanics of inclusions and defects, poroelasticity, coupled thermo-hydro-mechanical processes in deformable media, mechanics of inhomogeneous media, interfaces in geomechanics, fragmentation of brittle geomaterials, transport in porous media and mechanics of geosynthetics subjected to chemical exposure. These studies have profoundly influenced engineering activities related to nuclear waste management, soil-structure interaction and northern geomechanics associated with offshore structures and buried pipelines and environmental geomechanics. He has published over 220 research papers in journals devoted to applied mechanics, geomechanics and applied mathematics, transport in porous media and computational mechanics. He is the author or co-author of texts devoted to *Elastic*

Analysis of Soil-Foundation Interaction (Elsevier, 1979), *Elasticity and Geomechanics* (with R.O. Davis) (Cambridge University Press, 1996), *Partial Differential Equations in Mechanics Vols. 1&2* (Springer-Verlag, 2000) and *Plasticity and Geomechanics* (with R.O. Davis) (Cambridge University Press, 2002). He has also, edited or co-edited 9 books and 4 Special Issues of International Journals with peer review, devoted to nuclear waste disposal, environmental geomechanics, mathematics and mechanics of granular media, and theoretical solid mechanics. He serves in the Editorial Boards of nine leading International Journals devoted to *Geomechanics*, *Applied Mechanics*, *Computational Mechanics* and *Engineering Mathematics*. He is a Fellow of the Engineering Institute of Canada, American Academy of Mechanics, Canadian Society for Civil Engineering, The Institute for Mathematics and its Applications and the Canadian Academy of Engineering. In 2007 he was elected Fellow of the Royal Society of Canada.