

# CURRICULUM VITAE

## Academic Record

2000 - 2004 PhD, Geotechnical Engineering, University of Southampton, UK  
1996 - 2000 B.Eng (Hons), Civil Engineering, University of Southampton, UK

## Administrative Appointments

2022 - Associate Dean, Graduate Studies and Master of Engineering (MEng) program, Schulich School of Engineering, University of Calgary  
2021 - 2022 Assistant Dean, Master of Engineering (MEng) program, Schulich School of Engineering, University of Calgary  
2010 - 2013 Exams Officer, School of Civil Engineering, University of Southampton, UK

## Employment Record

2017 - Professor, Department of Civil Engineering, University of Calgary  
2013 - Canada Research Chair Tier II, Geomechanics of Gas Hydrates, University of Calgary  
2013 - 2017 Associate Professor, Department of Civil Engineering, University of Calgary  
2009 - 2013 Lecturer, University of Southampton, UK  
2005 - 2009 Senior Research Fellow, University of Southampton, UK  
2000 (4 months) Trainee Structural Engineer, London Underground, UK  
1999 (4 months) Trainee Site Agent, Dean and Dybal, UK  
1998 (4 months) Setting Out Engineer, P. Trant, Ltd, UK  
1993 - 1996 Financial Advisor, UK  
1986 - 1993 Building Contractor, UK

## Professional Certification and Membership in Learned Societies

2015 - APEGA  
2001 - International Society of Soil Mechanics and Geotechnical Engineering  
2014 - Canadian Geotechnical Society  
2014 - Calgary Geotechnical Society  
2010 - 2013 Rail Research UK Association  
2001 - 2013 Institution of Civil Engineers (UK), Graduate Member  
2001 - 2013 British Geotechnical Association

## Service Activities (selected)

### *University Service*

2025 - General Faculties Council Executive Committee  
2023 - Faculty of Graduate Studies Council  
2021 - Honours Committee, Senate  
2021 - General Faculties Council

2019 -	University Appeals Tribunal
2017 - 2020	FGS Scholarship Graduate Award Competition (GAC) Scholarship Committee
2017 - 2019	FGS Appeals Committee
2017 - 2018	General Faculties Council
2014 - 2020	SUPPORT: Chairs and Professorships Committee

#### **Faculty Service**

2023 -	Chair, Post Graduate Studies Committee
2018 - 2019	Faculty Tenure and Promotion Committee, Voting member
2019	Strategic Plan Task Force
2019 - 2020	Undergraduate Scholarship Committee, Chair
2016 - 2019	Program Quality Assurance Committee, Canadian Engineering Accreditation Board (CEAB)
2015 - 2018	Undergraduate Scholarship Committee, Member
2013	Faculty Promotions Committee, Non-voting member

#### **National/International Committees/Societies**

2023-APEGA Councillor	
2020 -	APEGA Board of Examiners
2020 -	Associate Editor, <i>Journal of Geophysical Research</i>
2018 - 2020	APEGA Outreach Volunteer
2011 - 2013	Chair, Southern Geotechnical Group, Specialist interest group of Institute of Civil Engineers (UK)
2010 – 2013	Committee member, Rail Research (UK) Association
2001 – 2011	Secretary, Southern Geotechnical Group, Specialist interest group of Institute of Civil Engineers (UK).

#### **Journal Reviews**

I currently review approximately one manuscript every 2 months from the following journals:

*Canadian Geotechnical Journal*

*Geotechnique*

*Journal of Geotechnical and Geoenvironmental Engineering*

*Journal of Marine and Petroleum Geology*

*Journal of Geophysical Research*

*Geophysical Journal International*

*G-cubed*

*Energies*

*Journal of Rail and Rapid Transit*

#### **Community Service**

2019	Ronald McDonald House Volunteer, Calgary
2019	United Way, Schulich School of Engineering, Leadership Giving Leader
2014 -	University of Calgary Open House Volunteer
2011	Ambassador STEM Event UK

2009 - 2012      Science and Engineering Day Volunteer, University of Southampton, UK

### **Selected Recent Awards, Distinctions and Fellowships**

2019	Service Excellence Award, Schulich School of Engineering
2019	Great Supervisor Award, Faculty of Graduate Studies
2018	Editor's Choice Award, <i>Canadian Geotechnical Journal</i>
2016	Teaching Excellence Award, Schulich School of Engineering
2013	Engineering Excellence Award, Technology Strategy Board, UK
2013	Excellence in Teaching Award, Southampton University Students Union
2007	Thomas Hawksley Gold Medal & John F Alcock Memorial Prize, Inst. of Mech. Eng. – Best Journal Paper “Monitoring the dynamic displacements of Railway Track” in <i>Journal of Rail and Rapid Transit</i> , 2007

### **Graduate and Undergraduate Supervision**

#### *Numbers of Current or Past Supervised/Co-supervised Students:*

16	PhD students
13	MSc students (thesis and project)
7	Post-Doctoral Fellows/Research Associates/Research Assistants
25	Senior Undergraduates

### **Instruction**

#### *Undergraduate courses:*

Design, Statics, Geotechnical Engineering, and Soil Mechanics

#### *Graduate courses:*

Natural Hazards, Landslides and Slope Stability, Advanced Foundation Engineering, and Special Problems.

### **Scholarly Activities**

#### *Research Grants and Contracts:*

- Awarded over \$5M in research funding from government and industry sources, including Natural Sciences and Engineering Research Council (NSERC) Discovery Grant in Characterizing the liquefaction susceptibility of unsaturated tailings and their contribution to tailings dam failures, a Canada Research Chair (Tier II) in the Geomechanics of Gas Hydrates, a Natural Sciences and Engineering Research Council (NSERC) Collaborative Research and Training Experience program (CREATE) in Responsible Development of Low-Permeability Hydrocarbon Resources, an NSERC Collaborative Research and Development Grant (CRD) for Multi-scale Monitoring of Hydraulic Fracturing and Wastewater Injection, and a grant from Geotek Ltd to investigate Permeability of Intact Hydrate-bearing Sands.
- Received £642,800 for UK projects such as assessing the occurrence and quantity of deep-ocean methane hydrates and investigating the role of Arctic climate change in increasing landslide and tsunami risk in the UK.

- Awarded £131,000 for sand mitigation measures efficiency in track resilience tests (Saipem Ltd) and consultancy services for an offshore drilling program (Geotek Ltd, Korea).

**Total number of academic publications** (journal articles, conference presentations, technical reports, book chapters, and abstracts, cited over 2,000 times by more than 1300 documents): 107

**Number of academic publications in last 6 years** (since 2019) > 45

Sample titles:

2024	“The influence of test conditions and soil properties on the geomechanical response of hydrate-bearing sands” (Canadian Geotechnical Journal), which examines the effects of numerous conditions on behavior of hydrate bearing sands
2023	“Separating Hydraulic Fracturing Microseismicity From Induced Seismicity by Bayesian Inference of Non-Linear Pressure Diffusivity” (Geophysical Research Letters), which examines techniques for differentiating different observed seismicity in hydraulic fracturing
2020	“Extended-FEM analysis of injection-induced slip on a fault with rate-and-state friction: Insights into parameters that control induced seismicity.” (Rock Mechanics and Rock Engineering), which investigates how faults slip under pressure injection.

**Number of Conference Keynote Addresses:** 14

Sample titles:

2023	“The Impact of THF hydrate veins on the consolidation behavior of fine grained soils” 10th International Conference on Gas Hydrates, Singapore
2020	“Linking Laboratory and Field Derived Properties of Gas Hydrate-Bearing Sediments,” Gordon Research Conference (GRC) 2020, Natural Gas Hydrate Systems
2019	“Geo-mechanical characteristics of hydrate-bearing sands?” <i>Engineering Mechanics Institute Conference</i> , Los Angeles

