

YASSER KORANY, Ph.D., P.E., P.Eng., LEED AP, PMP, DFE, FCSCE



Expert Witness & Consulting Forensic Engineer

KSI Engineering | *Certified Forensic Experts*[®]

korany@ksieng.ca | 647-620-7088

PROFESSIONAL BIOGRAPHY

Dr. Korany is a construction disputes expert and a designated consulting forensic engineer who investigates major and complex losses resulting from structural collapses, geo-structural failures, and building enclosure damage. He served as an expert for both plaintiffs and defendants and prepared expert opinion reports following the *Rules of Civil Procedure* on behalf of property owners, contractors, and designers. During his 35-year career, he performed over 1,500 forensic investigations involving structures as large as construction tower cranes and wind turbines, and as small as magnetic door lock devices. Throughout his practice, he has relied upon his unique combination of academic and industrial experience to identify the root cause of damage for institutional, commercial, and industrial facilities. His expertise includes providing litigation support for duty of care cases, professional and product liability claims, and building code matters. Before establishing KSI Engineering, he founded and led the Structural Forensics practice of Origin and Cause Inc, one of Canada's largest forensic engineering firms. Prior to calling Ontario home, he was a Professor of Structural Engineering at the University of Alberta where he mentored a large group of research trainees and taught undergraduate and graduate level structural analysis and design courses.

ACADEMIC CREDENTIALS

Ph.D., Structural Engineering, McMaster University, Hamilton, Ontario, 2005

M.Sc., Environmental Engineering, The American University in Cairo, 1999

M.Sc., Materials Engineering, The American University in Cairo, 1996

B.Sc., Civil Engineering, Cairo University, Giza, Egypt, 1988

PROFESSIONAL REGISTRATIONS & DESIGNATIONS

Board-Certified Senior Member, National Academy of Forensic Engineers (NAFE), USA, since 2022

Project Management Professional, Project Management Institute (PMI), USA, since 2019

Designated Consulting Engineer in Ontario, Professional Engineers Ontario (PEO), since 2017

Registered Professional Engineer in British Columbia, EGBC License # 42834, since 2015

Registered Professional Engineer in Michigan, USA, MI License # 6201062055, since 2014

Designated LEED Accredited Professional, Canada Green Building Council, since 2009

Registered Professional Engineer in Alberta, APEGA License # 93556, since 2008

Registered Professional Engineer in Ontario, PEO License # 100037649, since 2001

DISTINCTIONS & RECOGNITIONS

Fellow of the Canadian Society for Civil Engineering, 2024
Outstanding Paper Award, The Masonry Society Journal, USA, 2023
Outstanding Paper Award, The Masonry Society Journal, USA, 2019
Faculty of Engineering Teaching Award, University of Alberta, 2011
Inaugural Endowed Research Chair, University of Alberta, 2008-2014
Best Paper Award, 10th Canadian Masonry Symposium, Banff, Alberta, 2005
NSERC Postdoctoral Fellowship, Missouri University of Science & Technology, 2005
German Academic Exchange Services Research Scholarship, June 2003
Ontario Graduate Scholarship in Science & Technology, 2003
James and Helen Harvey Research Scholarship, McMaster University, 2002
W.A. Miller– Materials and Manufacturing Ontario PhD Scholarship, 2001

PROFESSIONAL EXPERIENCE

Managing Principal | **KSI Engineering** | since July 2022
20 Ostrovsky Rd, Vaughan, Ontario

KSI Engineering is an expert witness and consulting forensic engineering firm with a focus on major and complex structural investigations including building enclosures and non-building structures. Responsible for strategic direction, business development, and the daily operations of the business. Provide senior level supervision to a group of independent contractors and freelancers. Investigate construction disputes, standard of care, professional and product liability cases. Prepare expert reports and testify in court as an expert witness.

Founding Practice Lead | Structural Forensics | **Origin & Cause Inc.** | January 2015 – July 2022
120 Watline Ave, Mississauga, Ontario

Founded and expanded Origin and Cause Structural Forensics practice. Responsible for the strategic planning and all operations of the practice including proposal writing, budget estimate, equipment acquisition, business development, personnel training, and technical oversight. Conducted high level failure analysis investigations for law firms in support of litigation. Provided expert witness testimony in courts when required. Prepared technical reports, structural designs, and recommendations to restore buildings damaged by factors such as fire, snow overload, corrosion, strong wind, and soil movement.

Professor of Structural Engineering | **University of Alberta** | July 2008 – December 2014
Department of Civil and Environmental Engineering, Edmonton, Alberta

Taught structural analysis and design and building envelope courses at the undergraduate and graduate levels. Managed a large group of research trainees working on multiple projects. Supervised research projects on precast concrete rain-screen cladding systems, lateral resistance of masonry infilled RC and steel frames, structural reliability of loadbearing members, and rehabilitation of building envelopes for energy efficiency. Contributed to the development of building codes and standards as a voting member of several technical committees.

Forensic Engineering Consultant [**private practice**] | July 2008 – December 2014
Edmonton, Alberta

Provided consultancy services to government agencies like the Canadian Construction Materials Centre as well as to large and specialized engineering firms in post-damage structural assessment due to design/construction errors, excessive loading, or fire, and in the evaluation of deteriorated building envelope systems due to water leakage, condensation, and corrosion.

Structural Diagnostics Team Lead | **Walter P Moore** | July 2006 – June 2008
920 Main St., Kansas City, MO & 300 S. Orange Ave., Orlando, FL, USA

Performed structural and building envelope rehabilitation designs and investigative projects including structural failures, repair of deteriorated buildings, corrosion management, condition assessment, and construction litigation.

NSERC Research Associate | **University of Missouri** | June 2005 – June 2006
Missouri, Rolla, USA

Joined the Center for Repair of Buildings & Bridges with Composites (RB²C) which pioneered research in the application of Advanced Composite Materials (ACM) in structural rehabilitation. Involved in projects related to the evaluation of existing buildings, structural repair using ACM, and the development of methodologies to control the progressive collapse of structures.

Senior Structural Engineer | **Quartek Group Inc.** | July 2003 – May 2005
360 York Rd., Niagara-on-the-Lake, Ontario

Performed structural assessments and analyses and prepared technical reports on the condition of existing buildings in the Niagara region covering a wide range of structural materials & forms and different types of building enclosures.

REPRESENTATIVE INVESTIGATIONS

- Elite Engineering ats Corcon Construction, *Steel Building Collapse Litigation*, Erin, ON, 2023
- Toronto Auditor General, *Building Code Compliance Investigation*, Toronto, ON, 2023
- RN Design & Crystal Glen ats Cianccio, *Condensation & Mould Growth Litigation*, King City, ON, 2023
- Meridian Construction ats Aegis Living, *Flat Roof Leakage Litigation*, Collingwood, ON, 2022
- Magine & Worsley ats Belo Investments, *Damage from Adjacent Construction Litigation*, Toronto, ON, 2022
- RoofMart ats Toronto District School Board, *Flat Roof Fire Litigation*, Toronto, ON, 2022
- City of Sudbury vs GCCE & Architecture 49, *Underground Parking Waterproofing Litigation*, Sudbury, ON, 2022
- Circon ats Chabad, *Foundation Blind Waterproofing Litigation*, Toronto, ON, 2022
- MarcAntonio vs City of Toronto, *Vibration Damage Litigation*, Toronto, ON, 2021
- Anto Custom Homes vs Merzarian, *Renovation Construction Litigation*, Toronto, ON, 2021
- Batchewana First Nation, *Wind Turbine Tower Collapse Investigation*, Sault Ste Marie, ON, 2021
- Perzia GeoSolutions ats CrossLinx. *Slope Failure Investigation*, Toronto, ON, 2020
- Lisa Cook & Georgia Pottage vs the Farris, *Swimming Pool Failure Litigation*, Aurora, ON, 2020
- Conseil Scolaire Viamonde vs Stevenson Insulation, *Leaking Building Envelope Litigation*, Toronto, ON, 2019
- John's Leisurescapes ats Zygalko, *Swimming Pool Damage Litigation*, Alliston, ON, 2019
- TD Insurance, *Commercial Building Roof Collapse under Snow Investigation*, Sudbury, ON, 2019
- MCI Design-Build, *Industrial Steel Frame Building Failure Investigation*, London, ON, 2018
- Dan Ricker vs Dufferin Mutual, *Latent Structural Defects Litigation*, Canfield, ON, 2017
- Jason Lawson vs Lee Mather, *Latent Structural Defects Litigation*, Ottawa, ON, 2017
- Calloway Real Estate ats Miller, *Trip and Fall Litigation*, Halton Hills, ON, 2016
- TD Insurance, *Building Collapse Investigation*, Toronto, ON, 2016
- Gravenhurst Pharmacy vs Fowler Construction, *Building Collapse Litigation*, Gravenhurst, ON, 2015
- Verin ats Chicopee Craftsmen, *Renovation Construction Litigation*, Cambridge, ON, 2015

PROFESSIONAL DEVELOPMENT

- National Academy of Forensic Engineers (NAFE) Summer Conference, Ottawa, ON, July 2025
- Manager Acceleration Program (*a year-long online training*), Crawford Canada, Feb 2022
- Relying on the Work of Others and Outsourcing (*online course*), the Association of Professional Engineers and Geoscientists of Alberta (APEGA), Oct 2021
- Stigma Zero, Manager Track (*a 2-day online training*), Crawford Canada, May 2021
- Project Management Professional Certification, Project Management Institute, Dec 2020
- Working at Heights Training, Ministry of Labour, March 2020
- Permit to Practice, (*webinar*), APEGA, Dec 2019
- Lateral Design of Wood Structures, (*a full-day seminar*), Ontario Wood Works, June 2018
- Ontario Insurance Adjusters Association Conference, Jan 2018 & 2015
- Timber Connection Design, (*a full-day seminar*), Ontario Wood Works, Oct 2018
- The Code of Business and Ethics, (*an online course*), Crawford Canada, Dec 2018
- National Association of Subrogation Professionals Canadian Chapter Meeting, Nov 2017
- Risk Management Society Conference, Quebec City, Quebec, Sept 2015
- Design for Fire Resistance, (*webinar*), Concrete Precast Prestressed Institute, Jan 2015
- Wood Design, (*a half-day seminar*), Canadian Wood Council, Edmonton, Alberta, March 2011
- Building Envelope Insight (*a full-day seminar*), National Research Council, Edmonton, AB, Oct 2009
- Structural Diagnostics Fast Start, (*3-day short course*), Walter P Moore, Houston, TX, Aug 2007
- Joints and Joint Sealants, (*seminar*), Walter P Moore, Orlando, FL, April 2007
- Concrete Cracking: types, causes, prevention, & repair, (*seminar*), ACI Central Florida, Orlando, Mar 2007
- Structural Applications of Surface Penetrating Radar (*seminar*), Structural Engineering Institute, Central Florida, Orlando, Mar 2007
- Project Management Principles, (*5-day course*), Barley Consultants, Walter P Moore, Houston, TX, Feb 2007
- Total Corrosion Management, (*seminar*), Walter P Moore, Kansas City, MO, Oct 2006
- Parking Garages Seminar: Deterioration Mechanisms & Maintenance, AIA Kansas City Chapter, MO, Sept 2006

PROFESSIONAL AFFILIATIONS

National Academy of Forensic Engineers (NAFE)

American Concrete Institute (ACI)

American Society of Civil Engineers (ASCE)

Structural Engineering Institute (SEI)

Canadian Society for Civil Engineering (CSCE)

Canadian Standards Association (CSA)

Canada Green Building Council (CaGBC)

The Masonry Society (TMS)

CONTRIBUTION TO CODE & STANDARD DEVELOPMENT

Voting member of the following Technical Committees:-

- ACI 562C—Evaluation of Concrete Buildings (2013 cycle)
- ACI 530—Masonry Standards Joint Committee
- ACI 440M—Fibre Reinforced Polymer (FRP) Repair of Masonry Structures
- CSA S806—Design and Construction of Buildings with FRP
- CSA S304—Design of Masonry Structures (2014 cycle)

THOUGHT LEADERSHIP

- *Subrogation of fire losses involving multi-unit buildings.* Article published in the Journal of the **Ontario Insurance Adjusters Association**. Volume 89, No. 8, April 2025.
- *Investigating wind and snow damage to farm buildings.* National Webinar organized by the **Insurance Institute of Canada**, October 2024.
- *Passed inspection – the view of the Canadian courts on municipal liability.* Article in the Construction and Insurance Sections of the **Ontario Bar Association**, co-authored with K. Kwinter, September 2024.
- *Assessment of the vulnerability of low-human-occupancy farm buildings to wind damage.* **CSCE Structures Speciality Conference**, Niagara Falls, ON, co-authored with N. Goudarzi and A. Jamshidi, June 2024.
- *Standard of care and liability of design professionals.* Webinar organized by the Alberta branch of the **Canadian Bar Association**, April 2024.
- *Who's responsible? A guide to who is on the hook when construction projects go wrong.* Article published in the **Canadian Underwriter**, February/March 2024.
- *Determining liability in the structural failures of prefabricated residential inground swimming pools.* Article published in Without Prejudice, **Ontario Insurance Adjusters Association**, co-authored with W. Morris, January 2024.
- *Documentation and disclosure of expert witness draft opinions and reports.* Article published in the Art of Practice, JUST Magazine, **Ontario Bar Association**, co-authored with W. Morris, February 2023.
- *Standard of care in conducting general reviews of construction.* Article in the Construction and Infrastructure Law Section, **Ontario Bar Association**, co-authored with J. Figliomeni, November 2022.
- *Why did these historic masonry buildings fail.* **ASCE 9th Forensic Engineering Congress**, Denver, CO, USA, co-authored with N. Goudarzi, November 2022.
- *What to look for when adjusting large losses.* Webinar organized by **Ontario Mutual Insurance Association**, co-presented with M. Sherif, September, 2021.

TECHNICAL REVIEWS

- ACI Structural Journal
- ASCE Journal of Structural Engineering
- ASCE Journal of Composites for Construction
- Elsevier's Construction and Building Materials Journal
- The Masonry Society Journal
- Canadian Journal of Civil Engineering