

Yasser Korany

PH.D., P.E., P.ENG., LEED® AP



120 Watline Avenue
Unit 8
Mississauga Ontario
L4Z 2C1

EDUCATION

Post-Doctorate in Structural Assessment (2006)
Missouri University of Science & Technology, Rolla, Missouri

Doctor of Philosophy in Structural Engineering (2004)
McMaster University, Hamilton, Ontario

Master of Science in Environmental Engineering (1999)
The American University in Cairo

Master of Science in Materials Engineering (1996)
The American University in Cairo

Bachelor of Science in Civil Engineering (5-Year Program) (1988)
Cairo University, Giza

PROFESSIONAL REGISTRATION/LICENSING

Registered Professional Engineer in Ontario
PEO (License No. 100037649) since 2001

Registered Professional Engineer in Alberta
APEGA (License No. M93556) since 2008

LEED® Accredited Professional
Canada Green Building Council since 2009

Registered Professional Engineer in Michigan
MI Board (License N. 6201062055) since 2014

Registered Professional Engineer in British Columbia
APEGBC (License No. 42834) since 2015

PROFESSIONAL MEMBERSHIP

Canadian Society for Civil Engineering (CSCE)
Canadian Standards Association (CSA)
American Society of Civil Engineers (ASCE)
American Concrete Institute (ACI)
International Concrete Repair Institute (ICRI)
The Masonry Society (TMS)
Canada Green Building Council (CaGBC)

PROFESSIONAL EXPERIENCE

January 2015 to Present

Forensic Structural Engineering, *Origin and Cause Incorporated*

- Conduct on-site examinations of structural collapse of buildings and structures.
- Prepare technical reports for the insurance industry with professional opinion on the probable root cause of structural and building envelope losses.

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- Prepare detailed emergency structural designs and recommendations to make damaged structures safe for entry and during repair/rebuild.
- Provide high level forensic investigations to law firms in support of litigation.
- Provide expert witness testimony in courts when required.

July 2008 to December 2014

Building Forensics Consultant & President ***K-Stone Industries Ltd.***

Edmonton, Alberta (private practice)

- Provided consultancy services to several large and specialized engineering firms to investigate deteriorated building envelope systems due to factors such as ice damming, water leakage, and condensation, and in the area of post-damage structural assessment due to causes such as snow overload, foundation movement, and fire.
- Provided consultancy services to government agencies like the Canadian Construction Materials Centre (CCMC) to establish structural performance and durability criteria for cladding systems.

July 2008 to June 2014

Associate Professor of Structural Engineering ***University of Alberta***

Edmonton, Alberta

- Taught structural analysis & design and building envelope courses at the undergraduate and graduate levels.
- Managed a research group of graduate and undergraduate students working on projects totaling nearly a million dollars.
- Supervised research projects on precast concrete rain-screen cladding systems, lateral resistance of masonry infilled RC & steel frames, structural reliability of loadbearing members, and rehabilitation of building envelopes for energy efficiency.

July 2006 to June 2008

Project Manager, Structural Diagnostics ***Walter P Moore***

Kansas City, Missouri & Orlando, Florida

- Performed a wide range of structural and building envelope assessments and investigative projects including: building envelope deterioration, evaluation and repair of deteriorated structures, corrosion management, structural condition assessment, and litigation support.

June 2005 to June 2006

NSERC Post-doctoral Research Associate ***Center for Repair of Buildings & Bridges with Composites (RB²C), University of Missouri***

- The research at RB²C deals with the application of Advanced Composite Materials (ACM) in rehabilitation.

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- Involved in projects related to the evaluation of existing buildings, structural repairs using ACM, and the development of methodologies to control the progressive collapse of structures.

July 2003 to December 2004

Senior Structural Engineer **Quartek Group**

Niagara-on-the-Lake, Ontario

- Performed structural and building envelope assessments and prepared technical reports on the condition of many existing facilities in the Niagara region covering a wide range of construction materials and building forms.

June 2000 to January 2001

Structural Engineer **Reid Crowther Consulting Engineers**

- Worked for Reid Crowther, before being acquired by EarthTec, in the Bridges and Structures Department.
- Reviewed the designs of the prestressed concrete box girders of some of Canada National railway bridges.

September 1999 to December 2000

Research Engineer **ISIS Canada, the University of Manitoba**

Winnipeg, Manitoba

- Conducted laboratory testing on structural members reinforced with Advanced Composite Materials as required by the industry and performed structural analyses to describe the behavior based on theoretical and/or rational approaches.

January 1997 to December 1998

Specification Engineer **SIKA Construction Chemicals**

Cairo, Egypt

- Provided technical support to Sika's structural strengthening composite systems and repair materials.
- Worked in conjunction with universities and laboratories regarding third party testing.

January 1992 to December 1996

Structural Engineer **El-Degwy Architectural Consulting Bureau**

Giza, Egypt

- Designed reinforced concrete office and commercial buildings. Reviewed structural designs of many facilities such as factories and hotels prior to renovation.
- Proposed repair solutions for distressed structures due to aging, corrosion or overload.

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REPRESENTATIVE PROJECTS (PROJECT MANAGER AND/OR LEAD ENGINEER)

- Gravenhurst Pharmacy Limited ats Fowler Construction, Torkin Manes LLP, Gravenhurst, Ontario, 2015
- Harold's Heating ats J. A. Thorne & Harold's Heating ats Sunderland Hardware Limited, Stieber Berlach LLP, Sunderland, Ontario, 2015
- Germania ats Rawn, Laxton Glass LLP, Oro-Medonto, Ontario, 2015
- Verin ats Chicopee Craftsmen, Miller Thomson LLP, Cambridge, Ontario, 2015
- StoneTile Cladding System Performance Evaluation, Canadian Construction Materials Centre, Ottawa, Ontario, 2014
- Travelodge Edmonton International Airport–Structural Investigation Leduc, Alberta, 2013
- Norwester Building–Vehicle Impact Investigation Edmonton, Alberta, 2013
- Ernest Dhenin–Foundation Investigation, Stettler, Alberta, 2013
- Faberdale Dairies– Roof Snow Overload Investigation Lacombe, Alberta, 2013
- Black Earth Humic LLP–Fire Investigation, Ryley, Alberta, 2013
- Federal Building Renovation, Edmonton, Alberta, 2009
- Dynetech Centre Garage Evaluation, Orlando, Florida, 2007
- Driggers vs. Vezer's Litigation, Orlando, Florida, 2007
- Raymond James Stadium Hurricane Study, Tampa, Florida, 2007
- Urban Center Garage Assessment, Tampa, Florida, 2007
- Midland Theatre Renovation, Kansas City, Missouri, 2006
- Convention Center Structural Condition Assessment Kansas City, Missouri, 2006
- Baja Dome 600 Renovation, Country Plaza, Kansas City, Missouri, 2006
- American Airlines Hanger Structural Assessment Kansas City, Kansas, 2006
- University of Kansas Medical Center Alterations Kansas City, Kansas, 2006
- Fenwick United Church Renovation Fenwick, Ontario, 2004
- Point Abino Lighthouse Study, St. Catharines, Ontario, 2004
- Sprucedale Correction Facility Investigation, Simcoe, Ontario, 2003
- St. Elizabeth RAPIDEX Roof Assessment, Wainfleet, Ontario, 2003
- St. Joseph Hospital Alterations, Hamilton, Ontario, 2003
- Police Emergency Service Alternation, St. Catharines, Ontario, 2003

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PROFESSIONAL DEVELOPMENT

- Risk Management Society Conference, Quebec City, Quebec, 2015
- Design for fire resistance (webinar), Precast/Prestressed Concrete Institute, 2015
- Ontario Insurance Adjusters Association Professional Development and Claims Conference, Muskoka, Ontario, 2015
- Designing Building Envelopes to Meet Sustainable and Aesthetic Goals (webinar), Precast/Prestressed Concrete Institute, 2011
- NRC Building Envelope Insight (full day seminar), National Research Council, Edmonton, Alberta, 2009
- Concrete Strengthening Techniques and Design Considerations (full day seminar), Structural Preservation Systems, Long Beach, California, 2008
- Learn Structural Diagnostics Fast Start (3-day short course), Walter P Moore, Houston, Texas, 2007
- Concrete Cracking: Types, Causes, Prevention, and Repair, ACI Central Florida Chapter, Orlando, Florida, 2007
- Structural Applications of Surface Penetrating Radar, Structural Engineering Institute, Central Florida Chapter, Orlando, Florida, 2007
- Project Management Principles (5-day intensive course – Braley Consultants), Walter P Moore, Houston, Texas, 2007
- Total Corrosion Management, Walter P Moore Kansas City, Missouri, 2006
- Parking Garages: Deterioration Mechanisms & Maintenance, AIA Kansas City Chapter, Kansas City, Missouri, 2006
- Team-Based Project Management (3-day short course), Queen's Executive Development Centre, Queen's University, Ontario, 2004

AWARDS & HONOURS

- Faculty of Engineering Teaching Award, University of Alberta, 2011
- MCAA Chair in Masonry Systems, University of Alberta, 2008
- Best Paper Award, 10th Canadian Masonry Symposium Banff, Alberta, 2005
- Natural Sciences and Engineering Research Council Postdoctoral Fellowship, University of Missouri, 2005
- German Academic Exchange Services (DAAD) Research Scholarship, 2003
- Ontario Graduate Scholarship in Science and Technology, 2003
- James and Helen Harvey Research Scholarship, McMaster University, 2002
- W.A. Miller–Materials and Manufacturing Ontario PhD Scholarship, 2001
- Edward Toporeck–PhD Graduate Award, the University of Manitoba, 2000
- Gordon P. Osler Graduate Scholarship, the University of Manitoba, 2000
- Best Paper Award, 2nd Seismic Repair & Rehabilitation of Structures California, 2000

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SELECTED RECENT PUBLICATIONS

- Korany, Y.** (2016). New Canadian Housing Crisis: Shoddy Home Renovations.
- Korany, Y.** (2016). How to Successfully Subrogate Building Envelope Failure Losses
- Korany, Y.** (2015). Webinar: Ask An Expert: Open-Mic Discussions with Leading Forensic Engineers.
- Moosavi, H. and **Korany, Y.** (2014). Assessment of the Structural Reliability of Loadbearing Concrete Masonry Designed to the Canadian Standard S304.1. Canadian Journal of Civil Engineering, Vol.41, No.12, pp 1046-1053.
- Lohonyai, A., **Korany, Y.**, and Gül, M. (2014). Remote Monitoring of Thermal and Moisture Deformations in Masonry Cavity Wall Building Envelopes. ASCE Journal of Performance of Constructed Facilities, doi: 10.1061/(ASCE)CF.1943-5509.0000550.
- Goudarzi, N., Hatzinikolas, M., and **Korany, Y.** (2014). Out-of-Plane Behaviour of Concrete Sandwich Wall Panel Cladding Systems. The 4th Annual International Conference on Civil Engineering, Structural Engineering & Mechanics, Athens, Greece, 13 p.
- Nazief, M. and **Korany, Y.** (2014). Finite Element Modelling Technique for Masonry Infilled Shear Walls with and without Openings. The 4th Annual International Conference on Civil Engineering, Structural Engineering & Mechanics, Athens, Greece, 12 p.
- Lohonyai, A., **Korany, Y.**, and Ross, M. (2013). Effective Foam Insulation for Single-Wythe Concrete Masonry Walls. Journal of Building Physics, Vol.37, No.2, pp. 200–210.
- Lohonyai, A. and **Korany, Y.** (2013). Comparison of Building Enclosures Designed to the Minimum Requirements of the 2011 NECB. Elsevier Energy and Buildings Journal, Vol.66, pp. 143–153.
- Korany, Y.** (2011). Effective Techniques for Restoration of Heritage Masonry. International Journal of Materials and Structural Integrity, Vol.5, No.2/3, pp. 136-150.
- Hatzinikolas, M. and **Korany, Y.** (2005). Masonry Design—for Engineers and Architects. 1st Edition, Canadian Masonry Publications, Alberta, 464 p., ISBN# 0-9780061-0-0

Korany, Y., Glanville, J. and Kowalchuk, G. (2002). Masonry Saved This Under-Reinforced Building. *Concrete International*, Vol.24, No.1, pp. 45-49.

Salah El-Deen, O., **Korany, Y.** and Abdel-Latif, H. (2000). Cyclic Behavior of RC Beams Repaired Using CFRP Strips. 3rd International Conference on Advanced Composite Materials in Bridges and Structures, Ottawa, Ontario, pp. 283-290.