

Mona Abouhamad

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m.abuhamd@gmail.com**EDUCATION****Doctor of Philosophy** **2014****Building Engineering**

Concordia University, Montreal, Canada

Thesis Title “An Integrated Risk-Based Asset Management Framework for Subway Systems”

Master of Science **2009****Civil Engineering: Structural Engineering**

Cairo University, Giza, Egypt

Thesis Title “A Dynamic Model for Value Creation in Engineering Firms in Egypt”

Bachelor of Engineering **2006****Civil Engineering**

Cairo University, Giza, Egypt

WORK EXPERIENCE**TEACHING EXPERIENCE****Assistant Professor,** **2016 - Present**

Faculty of Engineering, Cairo University, Giza, Egypt

- ❖ Risk Management in Construction Projects
- ❖ Construction Project Management
- ❖ Construction Equipment
- ❖ Economic Strategies in Construction Industry
- ❖ Construction Planning and Scheduling

Part time Faculty Member,

Concordia University, Montreal, Canada

- ❖ Project Management (BLDG 6571) **2017**

- ❖ Project Cost Estimation (BLDG 6851) **2015**

Teaching Assistant **2011- 2012**

Concordia University, Montreal, Canada

Teaching Assistant**2006 - 2009**

Faculty of Engineering, Cairo University, Giza, Egypt

RESEARCH INTEREST

Condition Assessment - Risk Analysis – Infrastructure Asset Management – Productivity Estimates – Ground Penetrating Radar – Bridge Management Systems

RESEARCH EXPERIENCE**2015 – 2016****Post-Doctoral Fellow**

Concordia University, Montreal, Quebec

- ❖ GPR-based Condition Rating System for Concrete Bridge Decks in Quebec. Undertaken for the Ministère des Transports du Québec (MTQ) in collaboration with Radex Detection Inc.
- ❖ Tools for Value Management of Water Distribution Networks in Qatar

Research Assistant

Concordia University, Montreal, Quebec

Infrastructure, Risk Management, Transit Systems, Condition Assessment, GPR

2006-2009**Research Projects**

- ❖ Risk-Based assessment tools for Subway Networks
- ❖ GPR-based Condition Rating System for Bridge Decks in Quebec
- ❖ Condition Assessment Models for water pipelines.

Research Assistant

Cairo University, Giza, Egypt

Value management, strategy maps, dynamic programming, and engineering firms.

PUBLICATIONS**Papers and Reports;**

AbouHamad, M., & Abu-Hamd, M. (2019). Framework for construction system selection based on life cycle cost and sustainability assessment. *Journal of Cleaner Production*, 118397.

Abouhamad, M., & Zayed, T. (2019). Risk-Based Asset Management Framework for Subway Systems. *Journal of Construction Engineering and Management*, 145(11), 04019071.

Hasaballah, M, Abouhamad, M., and Ibrahim, M. (2019). Application of improving traditional push planning with last planner principles. *Canadian Society of Civil Engineers (CSCE) Annual Conference, 7th Construction Specialty Conference, Montreal, Canada.*

Kassem, B., Abouhamad, M., and Osman, H. (2019). Risk Management framework for proactive assessment of Power Plant projects in Egypt. *Canadian Society of Civil Engineers (CSCE) Annual Conference, 7th Construction Specialty Conference, Montreal, Canada.*

AbuHamd, M., and Abouhamad, M. (2019). Life Cycle Cost Analysis of Light Steel Framed Buildings with Cement-Based Walls and Floors. Canadian Society of Civil Engineers (CSCE) Annual Conference, 7th Construction Specialty Conference, Montreal, Canada.

Hegazy, A., Abouhamad, M., and, Osman, H., (2019). Modeling Labor Productivity in Egypt using Regression Prediction Models. Canadian Society of Civil Engineers (CSCE) Annual Conference, 7th Construction Specialty Conference, Montreal, Canada.

Abouhamad, M., Dawood, T., Jabri, A., Alsharqawi, M., & Zayed, T. (2017). Corrosiveness mapping of bridge decks using image-based analysis of GPR data. *Automation in Construction*, 80, 104-117.

Mohamed Ata, M., Marzouk, M., Abouhamad, M., and Serror M. (2017). “Structural Assessment of Bridge Decks using 3D Laser Scanning and Ground Penetrating Radar”. The 34th International Symposium on Automation and Robotics in Construction and Mining (ISARC 2017), Taipei, Taiwan.

Ata, M., Abdelakder, E. M., Abouhamad, M., Serror, M. H., & Marzouk, M. (2017). On the Use of Ground Penetrating Radar for Bridge Deck Assessment. *DEStech Transactions on Computer Science and Engineering*, (csae).

Abdul Rahman, M., Zayed, T., & Abouhamad, M. (2016). “Automating Visual Image Analysis of GPR Profiles for Reinforced Concrete Bridges”. In *Transportation Research Board 95th Annual Meeting* (No. 16-5898).

Abouhamad, M., Zayed, T., and Moselhi, O. (2016) Leak Detection in Buried Pipes Using Ground Penetrating Radar—A Comparative Study. *Pipelines 2016*: pp. 417-424.

Abouhamad, M. and Zayed, T. (2015) “Modelling Subway Risk Assessment using Fuzzy Logic”, CSCE 11th Construction Specialty Conference (ICSC15), June 2015, Vancouver, Canada.

Dinh, K.; Zayed, T.; Moufti, S; Shami, A; Jabri, A.; Abouhamad, M.; and Dawood, T. (2015) “Clustering-based Threshold Model for Condition Assessment of Concrete Bridge Decks using Ground Penetrating Radar”. *Transportation Research Record: Journal of the Transportation Research Board*. No. 2522, pp. 81-89.

Abouhamad, M.; Dawood, T.; Dinh, K.; Jabri, A.; Shami, A and Zayed, T. (2015) “GPR-Based Condition Rating System for Concrete Bridge Decks in Quebec; Fourth Interim Report”. Undertaken for the Ministère des Transports du Québec

Dawood, T.; Abouhamad, M.; Tarussov, A.; Zayed, T.; Jabri, A.; Shami, A.; and Dinh, K.; (2015) “Corrosion Mapping in Bridge Decks Using Ground Penetrating Radar (GPR) Image Analysis: Procedure and Validation”, *Multi-Span Large Bridges (MSLB) Conference*, July 2015, Porto, Portugal.

El Chanati, H., El-Abbasy, M. S., Mosleh, F., Senouci, A., Abouhamad, M., Gkountis, I., ... & Al-Derham, H. (2015). Multi-criteria decision making models for water pipelines. *Journal of Performance of Constructed Facilities*, 30(4), 04015090.

Abouhamad, M. (2014), “An Integrated Risk-Based Asset Management Framework for Subway Systems” PhD Dissertation. Department of Building, Civil, and Environmental Engineering, Concordia University, Montreal, Canada.

Abouhamad, M. and Zayed, T. (2014) “A Functionality-Based Methodology for Ranking Subway Systems for Rehabilitation”. The Twelfth International Conference on Computational Structures Technology, September, Naples, Italy.

Dinh, K.; Moufti, S; Jabri, A.; Shami, A; Abouhamad, M.; Dawood, T. and Zayed, T. (2014) “GPR-Based Condition Rating System for Concrete Bridge Decks in Quebec; Third Interim Report”. Undertaken for the Ministère des Transports du Québec

El-Abbasy, M., Zayed, T., Ahmed, M., Alzraiee, H., and Abouhamad, M. (2013). “Contractor Selection Model for Highway Projects Using Integrated Simulation and Analytic Network Process.” *Journal of Construction Engineering and Management*, 139(7), 755-767.

Abouhamad, M. and Zayed, T. (2013) “Criticality-Based Model for Rehabilitating Subway Stations”. The 30th International Symposium on Automation and Robotics in Construction and Mining (ISARC 2013), Montreal, Canada.

Abouhamad, M. and Zayed, T. (2013) “Multiple Perspective Consequence of Failure Estimation of Subway Stations”. Canadian Society of Civil Engineers (CSCE) Annual Conference, 4th Construction Specialty Conference, Montreal, Canada.

Abouhamad, M.; Bakry, M.; El Saed, M.; (2011), “A Dynamic Model for Value Creation in Engineering Firms in Egypt” International Conference on Management of Globalization and Strategies for Competitiveness, ICCGC 2011, Uttar Pradesh, India.

Abouhamad, M. (2009), “A Dynamic Model for Value Creation in Engineering Firms in Egypt” M.Sc. Dissertation. Department of Structural Engineering, Faculty of Engineering, Cairo University, Egypt.

Presentation at meetings and symposia;

Ata, M., Abdelakder, E. M., Abouhamad, M., Serror, M. H., & Marzouk, M. (2017). On the Use of Ground Penetrating Radar for Bridge Deck Assessment. *DEStech Transactions on Computer Science and Engineering*, (csae).

Dinh, K.; Zayed, T.; Moufti, S; Shami, A; Jabri, A.; Abouhamad, M.; and Dawood, T. (2015) “Clustering-based Threshold Model for Condition Assessment of Concrete Bridge Decks using Ground 1 Penetrating Radar” Poster Presentation, Transportation Research Board (TRB) 94th Annual Meeting, Washington D.C.

Abouhamad, M. and Zayed, T. (2014) “An Integrated Risk-based Asset Management Tools for Subways Systems” Poster Presentation, 8th Annual Canadian Network of Asset Managers Conference, Toronto, Canada.

Abouhamad, M. and Zayed, T. (2013) “Multiple Perspective Consequence of Failure Estimation of Subway Stations”. Poster Presentation, Canadian Society of Civil Engineers (CSCE) Annual Conference, 4th Construction Specialty Conference, Montreal, Canada.

El-Abbasy, M.; Ahmed, M.; Alzraiee, H.; Abouhamad, M.; Zayed, T.; and Abdelrahman, M.; (2012). “Interdependency and Uncertainty-based Modeling for Contractor Selection in Highway Projects” Poster Presentation, Transportation Research Board (TRB) 91st Annual Meeting.

MEMBERSHIPS AND PROFESSIONAL AFFILIATIONS

- ❖ Automation in Construction Journal, (Reviewer).
- ❖ Construction Management and Economics Journal, (Reviewer).
- ❖ Construction Research Council (CRC), (Member).
- ❖ North American Society for Trenchless Technology (NASTT) – Concordia Student Chapter, (Member).
- ❖ American Society of Civil Engineers (ASCE), (Member).
- ❖ Egyptian Engineer Syndicate, (Member)
- ❖ Cairo University Faculty Members, (Member).

EXTRA-CURRICULAR ACTIVITIES

- ❖ Internal Vice President, North American Society for Trenchless Technology (NASTT) – Concordia Student Chapter (2011-2015)
- ❖ Co-Web Developer for the Building Engineering Department website at Concordia University. (<http://users.encs.concordia.ca/~pavemark/index.html>)
- ❖ “Best Practices for Risk Analysis, Quantification, and Control”, Certified attendee, AACE International, Montreal Section.
- ❖ PLUS Leadership Certificate, Concordia University.
- ❖ Graduate Seminar in University Teaching Certificate, Concordia University, Montreal, Canada.

LANGUAGES

- ❖ Arabic (mother language).
- ❖ Fluent English.
- ❖ Very good French.

COMPUTER SKILLS

- ❖ AutoCAD 2006
- ❖ Autodesk Revit
- ❖ Primavera Project Planner
- ❖ Microsoft Office

SCHOLARSHIPS, AWARDS, AND OTHER ACADEMIC HONORS

Honorable mention, Poster, Canadian Network of Asset Managers Conference	2014
Concordia University Accelerator Award	2014
AACEI Montreal Section Scholarship Competition	2012
Concordia University Partial Tuition Scholarship for International Students	2011-2013
ENCS Special Scholarship for New High-Caliber Ph.D. Students.	2010-2013
Teaching fellowship, Faculty of Engineering, Cairo University, Egypt.	2006-2009
Cairo University Research Assistant scholarship, Cairo, Egypt.	2006-2009
Cairo University Faculty Members Certificate of Excellence.	2006
Egyptian Engineer Syndicate Certificate of Excellence.	2006
Award of Excellence (Tuition fee Remission), Cairo University.	2001-2006