

## **ACADEMIC BACKGROUND**

- Doctorate Degree (Ph.D.) in Civil Engineering, Toronto Metropolitan University (formerly Ryerson University), Toronto, Canada, 2009.
- Master's degree (M.A.Sc.) in Civil Engineering, Toronto Metropolitan University (formerly Ryerson University), Toronto, Canada, 2003.
- Bachelor's degree (B.Sc.) in Civil Engineering, Alexandria University, Egypt, 1988.
- Completed graduate-level courses in advanced road design, traffic safety, urban transportation planning, transit planning & design, and pavement design.
- Completed undergraduate-level courses in engineering surveying, road design, building envelope, concrete design, structural analysis, physics, railway design, and transportation engineering.
- Completed the "Snow School" course provided by the Ontario Good Roads Association.
- Completed the "Road Safety Audits" course provided by the Ontario Good Roads Association.
- Completed a preparatory course and passed the exam for Road Safety Professional "Level 1" (RSP1) by the Institute of Transportation Engineers (ITE) and the Transportation Professional Certification Board (TPCB).

## **PROFESSIONAL COMPETENCY AREAS**

- Road design.
- Routine road inspection and maintenance.
- Winter road inspection and maintenance.
- Traffic control devices (including traffic signals, signs, and pavement markings).
- Planning, designing, and maintaining pedestrian facilities.
- Planning, designing, and maintaining bicycle (cycling) facilities.
- Safety requirements for temporary work zones.
- Nighttime visibility assessment.
- Human factors related to traffic safety.
- Traffic safety analysis.
- Analysis of slip & fall, trip & fall, and balconies/stairs incidents.

## EMPLOYMENT HISTORY

- President – EDA Forensics: July 2023 – present.
- Vice President – Advantage Forensics: February 2021 – June 2023.
- Senior Engineer – Advantage Forensics: January 2020 – January 2021.
- University Professor – Abu Dhabi University (UAE): August 2009 – December 2019.
- Transportation Engineer – Giffels Associates (now IBI Group): April 2003 – August 2008.
- Project Manager – Arcon Construction (Egypt): 1996 – 2000.
- Project Engineer – Modern Contracting (Egypt): 1988 – 1996.

## PROFESSIONAL SOCIETIES & APPOINTMENTS

- Registered Professional Engineer (P. Eng.) in Ontario, Alberta, and British Columbia.
- Designated '*Consulting Engineer*' by Professional Engineers Ontario.
- Accredited Road Safety Auditor in Ontario.
- Certified Road Safety Professional "Level 1" (RSP1).
- Fellow Member of the Institute of Transportation Engineers (F.ITE).
- Member of the Canadian Society for Civil Engineering (CSCE).
- Member of the American Society of Civil Engineers (ASCE).
- Member of the Canadian Association for Road Safety Professionals (CARSP).
- Member of the Transportation Association of Canada (TAC).
- Member of the Canadian Parking Association (CPA).
- ABET/ASCE Program Evaluator for accreditation of Civil Engineering university programs.
- Chairman of the "*Middle East Traffic Infrastructure Summit*", Dubai, November 2016.
- Scientific technical paper reviewer for several professional journals, including the following:
  - *Accident Analysis & Prevention*
  - *Traffic Injury Prevention*
  - *Journal of Transportation Engineering*
  - *Journal of Traffic and Transportation Engineering*
  - *Journal of Surveying Engineering*
  - *Canadian Journal of Civil Engineering*
  - *IET Intelligent Transportation Systems*

## PROFESSIONAL AWARDS

- Outstanding Reviewer Award, American Society of Civil Engineers, 2017
- Research Fellow Award, Abu Dhabi University, 2017
- Outstanding Teaching Award, Abu Dhabi University, 2015
- Outstanding Research Award, Abu Dhabi University, 2014
- Certificate of Excellence, Abu Dhabi University, 2012
- Outstanding Research Award, Abu Dhabi University, 2010
- Innovation Challenge Award, Ryerson University, 2009
- Arthur M. Wellington Prize, American Society of Civil Engineers, 2005

## RECENT PROFESSIONAL DEVELOPMENT ACTIVITIES

July 2025:

- Provided a technical seminar on *“Uncovering road authorities’ liability through expert analysis”* for professional engineers and future engineers during the technical event titled *“Transportation Engineering: Intelligent Transportation Systems, Traffic Management, and Road Safety”*, organized by Professional Engineers Ontario (PEO) – Mississauga Chapter.
- Attended a technical seminar on *“The three dimensions of road safety countermeasures”*, provided by Professional Engineers Ontario (PEO) – Mississauga Chapter.
- Attended the *“Road Safety Barriers”* webinar, provided by the Institute of Highway Engineers - Middle East Branch.

March 2025:

- Provided a lecture on *“Traffic Safety in Ontario”* for senior Civil Engineering students at Toronto Metropolitan University.

November 2024:

- Provided a one-day training course for municipal and forensic engineers, technologists, and technicians. The course is titled *“Municipal Liability: Temporary Work Zones”*, which was organized by the Ontario Good Roads Association.
- Provided a three-day training course for municipal and forensic engineers, technologists, and technicians. The course is titled *“Municipal Liability: Traffic Collisions”*, which was organized by the Ontario Good Roads Association.

September 2024:

- Provided a lecture on *“Traffic Impact Studies”* for senior Civil Engineering students at Toronto Metropolitan University.

February 2024:

- Provided a one-day training course for municipal and forensic engineers, technologists, and technicians. The course is titled *“Municipal Liability: Temporary Work Zones”*, which was organized by the Ontario Good Roads Association.

January 2024:

- Provided a three-day training course for municipal and forensic engineers, technologists, and technicians. The course is titled *“Municipal Liability: Traffic Collisions”*, which was organized by the Ontario Good Roads Association.
- Provided a lecture on *“Traffic Safety Studies”* for senior Civil Engineering students at Toronto Metropolitan University.

October 2023:

- Attended and passed the *“Road Safety Audits”* course provided by the Ontario Good Roads Association.

September 2023:

- Provided a lecture on *“Traffic Impact Studies”* for senior Civil Engineering students at Toronto Metropolitan University.

January 2023:

- Provided a lecture on *“Traffic Safety Studies”* for senior Civil Engineering students at Toronto Metropolitan University.

January 2023:

- Attended the *“Pedestrian Pre-Impact Posture”* journal club provided by Advantage Forensics.

November 2022:

- Provided a training course for municipal and forensic engineers, technologists, and technicians. The course is titled *“Municipal Liability: Traffic Collisions”*, which was organized by the Ontario Good Roads Association.

September 2022 – May 2023:

- Supervised two student groups in their graduation project. The two student groups are from the Civil Engineering Department at Toronto Metropolitan University.

September 2022:

- Provided a lecture on *“Traffic Impact Studies”* for senior Civil Engineering students at Toronto Metropolitan University.

June 2022:

- Presented a research paper titled *“Investigating the level of risk imposed by different driver groups using different types of light-duty vehicles”* at the annual conference of the Canadian Association of Road Safety Professionals (CARSP), Sudbury, ON.

December 2021:

- Attended the *“Introduction to Berla iVe toolkit”* seminar provided by Advantage Forensics.

October 2021:

- Completed the *“Handling Cross-Examination Under Pressure”* workshop provided by Experteye Consulting.

June 2021:

- Completed the *“Forensic Video Analysis: Video Literacy”* Course provided by INPUT ACE.

May 2021:

- Attended the Annual Conference of the Canadian Society for Civil Engineering (CSCE).

April 2021:

- Attended the *“How to conduct site visits? - Road Safety during site visits”* webinar provided by CIHT Qatar Group.

January 2021:

- Attended the 100<sup>th</sup> Annual Meeting of the Transportation Research Board (TRB).

December 2020:

- Attended the *“Understanding the Upcoming CMF Rating Transition and Exploring Real-World Applications of CMFs”* webinar provided by the University of North Carolina Highway Safety Research Center.

October 2020:

- Invited speaker for the *“Experts Insights”* online panel discussion titled *“The importance & relevance of engineering knowledge in major forensic investigations”* organized by the Dubai Police Scientists Council.
- Attended the *“IHSDM 2020 - New Enhancements Support Data-Driven Safety Analysis (DDSA)”* webinar provided by the Federal Highway Administration (FHWA).
- Attended the *“Research and Innovation on Pedestrian Hybrid Beacon Operations and Safety in Arizona”* webinar provided by the Institute of Transportation Engineers (ITE).

## SELECT PUBLICATIONS

- [In press] Dabbour, E. (2026). "Evaluating the Decision to Ban Automated Speed Enforcement in Ontario". *Safety Network Newsletter*, published by the Canadian Association for Road Safety Professionals (CARSP).
- [In press] Dabbour, E. (2026). "From Reactive to Proactive: Transforming Winter Road Safety in Canada". *Safety Network Newsletter*, published by the Canadian Association for Road Safety Professionals (CARSP).
- Dabbour, E. (2023). "Work Ahead: The pitfalls of temporary work zones". *Good Roads Quarterly*, Canada, September 2023.
- Dabbour, E., and Young, J. (2022). "When little liability incurs huge costs: setting the thin white line of municipal liability". *Good Roads Quarterly*, Ontario, Canada, October 2022.
- Moussa, G., Owais, M., and Dabbour, E. (2022). "Variance-based global sensitivity analysis for rear-end crash investigation using deep learning". *Accident Analysis & Prevention*, 165: 106514.
- Dabbour, E., and Singh, H. (2021). "Your decision to invest in a modern vehicle may save your life". *WP Magazine*, Ontario, Canada, May 2021.
- Dabbour, E. and Easa, S. (2021). "Revised method for calculating departure sight distance at Two-Way Stop-Controlled (TWSC) intersections". *Transportation Research Record: Journal of the Transportation Research Board*, DOI: <https://doi.org/10.1177/03611981211031544>.
- Dabbour, E. and Dabbour, O. (2021). "Establishing acceleration profiles of light-duty vehicles departing in a straight path from two-way stop-controlled intersections". Proceedings of the *annual conference of the Canadian Society for Civil Engineering (CSCE)*, May 2021.
- Staveren, H. and Dabbour, E. (2021). "Evaluating the effectiveness of lowering speed limits on urban roads with and without implementing traffic calming devices". Proceedings of the *annual conference of the Canadian Society for Civil Engineering (CSCE)*, May 2021.
- Gobin, N., Ngyuen, M., Puthoor, J., Tariq, R., Yip, M., Alkarawi, S., Rataul, M., Easa, S., and Dabbour, E. (2021). "Improving selected intersections across Niagara region for Miovision's smart city program". Proceedings of the *annual conference of the Canadian Society for Civil Engineering (CSCE)*, May 2021.
- Dabbour, E. and Dabbour, O. (2021). "Understanding how drivers accelerate on interchange acceleration lanes". Proceedings of the *100<sup>th</sup> Annual Meeting of the Transportation Research Board*, Jan. 2021.

- Dabbour, E., Easa, S., and Dabbour, O. (2020). "Minimum lengths of acceleration lanes based on actual driver behavior and vehicle capabilities". *Journal of Transportation Engineering*, 147(3).
- Dabbour, E., Dabbour, O., and Martinez, A. A. (2020). "Temporal stability of the factors related to the severity of drivers' injuries in rear-end collisions". *Accident Analysis & Prevention*, 142: 105562.
- Dabbour, E. (2020). "Motivating engineering students by providing two mid-term exams and dropping the lower mark". *Journal of Civil Engineering Education*, 147(1).
- Dabbour, E. and Badran, A. (2020). "Understanding how drivers are injured in rear-end collisions". *European Transport*, 77(1): 1 – 10.
- Dabbour, E., and Martinez, A. (2020). "The science and fiction of autonomous vehicles". *WP Magazine*, Ontario, Canada, June 2020
- Dabbour, E., Haider, M., Easa, S., and Philip, T. (2019). "Investigating temporal stability of risk externalities in traffic collisions". *Journal of Transportation Safety & Security*.
- Dabbour, E., Haider, M., and Diaa, E. (2019). "Using random- parameter and fixed-parameter ordered models to explore temporal stability in factors affecting drivers' injury severity in single vehicle collisions". *Journal of Traffic & Transportation Engineering*, 6(2): 132 – 146.
- Dabbour, E., Awadhi, M.A., Aljarah, M., Mansoura, M., and Haider, M. (2018). "Evaluating Safety Effectiveness of Roundabouts in Abu Dhabi". *International Association of Traffic and Safety Sciences Research*.
- Almoarawi, M. and Dabbour, E. (2018). "Predicting operating speeds at urban multi-lane roundabouts in Abu Dhabi, United Arab Emirates". *Journal of Advanced Transportation*, Vol. 2018.
- Dabbour, E., Easa, S. and Haider, M. (2017). "Using fixed-parameter and random-parameter ordered regression models to identify significant factors that affect the severity of drivers' injuries in vehicle-train collisions". *Accident Analysis & Prevention*, 107: 20 – 30.
- Dabbour, E. (2017). "Analyzing temporal trends of the factors that increase the risk of rollover in single-vehicle collisions". *Journal of Transportation Safety & Security*.
- Dabbour, E. (2017). "Investigating temporal trends in the explanatory variables related to the severity of drivers' injuries in single vehicle collisions". *Journal of Traffic & Transportation Engineering*, 4(1): 71 – 79.
- Dabbour, E. (2017). "Risk factors that increased accident severity at US railroad crossings from 2005 to 2015". In *Transportation Infrastructure & Systems: Proceedings of the AIIT International Congress on Transport Infrastructure & Systems (Rome, Italy, 10-12 April 2017)*. ISBN 978-1-1380-3009-1. CRC Press, Taylor & Francis Group, USA.



- Dabbour, E. and Easa, S. (2016). "Sight-distance requirements for left-turning vehicles at two-way stop-controlled intersections". *Journal of Transportation Engineering*.
- Dabbour, E. (2016). "Assessing the effects of implementing an online student response system in a transportation engineering course". *Journal of Professional Issues in Engineering Education and Practice*.
- Easa, S., Qu, X., and Dabbour, E. (2016). "Improved Pedestrian Sight Distance Needs at Railroad-Highway Grade Crossings". *Journal of Transportation Engineering*.
- Dabbour, E. (2015). "Quantifying the effects of using online student response system in an engineering ethics course". *Journal of Professional Issues in Engineering Education and Practice*, 142(2).
- Dabbour, E. (2015). "Design gap acceptance for right-turning vehicles based on vehicle acceleration capabilities". *Transportation Research Record: Journal of the Transportation Research Board*, 2521: 12–20.
- Dabbour, E. and Easa, S. (2014). "Proposed Collision Warning System for Right-Turning Vehicles at Two-way Stop-controlled Rural Intersections". *Transportation Research Part C: Emerging Technologies*, 42: 121 – 131.
- Dabbour, E. (2013). "Optimizing highway profiles for individual cost items". *International Journal for Traffic and Transport Engineering*, 3(4): 440 – 447.
- Dabbour, E. (2012). "Using Logistic Regression to Identify Risk Factors Causing Rollover Collisions". *International Journal for Traffic and Transport Engineering*, 2(4): 372 – 379.
- Dabbour, E., Easa, S., and Hossain, A. (2012). "Statistical models to measure driver behaviour in response to an intersection collision warning system". In *Driver Behaviour and Training: Volume V*. ISBN 978-1-4094-4304-9. Ashgate Publishing Ltd, England.
- Dabbour, E. and Easa, S. (2010). "Technology-Independent Algorithm for Collision Warning System at Semi-Controlled Intersections". *Canadian Journal of Transportation*, Vol. 3(1), 2010, 45-68.
- Easa, S., Reed, M., Russo, F., Dabbour, E., Mehmood, E., and Curtis, K. (2010). "Effect of increasing road light luminance on night driving performance of older adults". *International Journal of Applied Science, Engineering and Technology*. Vol. 6(1), 2010, 41-48.
- Dabbour, E. and Easa, S. (2009). "Perceptual Framework for a Modern Left-Turn Collision Warning System". *International Journal of Applied Science, Engineering and Technology*. Vol. 5:1, 8 – 14.
- Dabbour, E. and Easa, S. (2008). "Evaluation of safety and operational impacts of bicycle bypass lanes at modern roundabouts". *Canadian Journal of Civil Engineering*. Vol. 35:10, 1025 – 1032.



- Easa, S. and Dabbour, E. (2005). "Establishing Design Guidelines for Compound Horizontal Curves on Three-Dimensional Alignments", *Canadian Journal of Civil Engineering*. Vol. 32:4, 615 – 626.
- Easa, S., Ali, M., and Dabbour E. (2005). "Design Aids for Offsetting Opposing Left-Turn Lanes for Intersections on Horizontal Curves". *ASCE Journal of Transportation Engineering*. Vol. 131, 835-842.
- Dabbour, E. and Easa, S. (2004). "Radius Requirements for Reverse Horizontal Curves on 3D Alignments". *ASCE Journal of Transportation Engineering*. Vol. 130, 610-620.
- Easa, S., Dabbour, E., and Ali, M. (2004). "Three-Dimensional Model for Stop-Control Intersection Sight Distance". *ASCE Journal of Transportation Engineering*, Vol. 130, 261-270.
- Easa, S. and Dabbour, E. (2003). "Need for Revising Minimum Radius Requirements On Three-Dimensional Highway Alignments", *Canadian Journal of Civil Engineering*, Vol. 30:6, 1022 – 1033.
- Khan, N. and Dabbour, E. (2018). "Proposed pavement markings to reduce right-turning vehicular crashes". *Proceedings of Road Safety on Five Continents Conference*, South Korea, May 2018.
- Easa, S., Dabbour, E., Gruchalla-Wesierski, A., and Qu, X. (2018). "Pedestrian Sight Distance Needs at Railroad Crossings: Integrating Train Stopping Requirements". *Proceedings of the 4<sup>th</sup> International Conference on Railway Technology*, Barcelona, Sept. 2018.
- Aly, A. and Dabbour, E. (2018). "Using Ordered Modeling to Identify the Most Significant Factors That Increase the Severity of Single Vehicle Collisions". *Proceedings of the Canadian Association of Road Safety Professionals Annual Conference*, Victoria, June 2018.
- Philip, T., Dabbour, E., and Easa, S. (2018). "Investigating the risks imposed by different driver groups on other road users". *Proceedings of the Canadian Society for Civil Engineering Annual Conference*, Fredericton, June 2018.
- Almoarawi, M. and Dabbour, E. (2018). "Developing and validating regression models to predict operating speeds for roundabouts in Abu Dhabi". *Proceedings of the Canadian Society for Civil Engineering Annual Conference*, Fredericton, June 2018.
- Bridgwater, S., Dabbour, E., and Haider, M. (2018). "Identifying the factors that increase the severity of pedestrians' injuries when struck by vehicles". *Proceedings of the Canadian Society for Civil Engineering Annual Conference*, Fredericton, June 2018.
- Dabbour, E., Hossam, E., Ally, N., Elshennawy, A., and Falaknaz, H. (2018). "Enhanced model for calculating the required lengths of acceleration lanes at freeway interchanges". *Proceedings of the Canadian Society for Civil Engineering Annual Conference*, Fredericton, June 2018.

- Tabaza, H., Dabbour, E., and Ghazal, M. (2017). "NFC-based mobile-guided parking system in indoor environments". *Proceedings of the 5<sup>th</sup> International Road Federation Middle East Regional Congress & Exhibition*, Dubai, Oct. 2017.
- Kunnah, H., and Dabbour, E., (2017). "An Optimization Model for Minimizing the Cost of Constructing Highway Vertical Alignments". *Proceedings of the 5<sup>th</sup> International Road Federation Middle East Regional Congress & Exhibition*, Dubai, Oct. 2017.
- Dabbour, E. (2015). "Design gap acceptance for right-turning vehicles based on vehicle acceleration capabilities". *94<sup>th</sup> Annual Meeting of the Transportation Research Board*, Washington D.C., Jan. 2015.
- Dabbour, E. (2012). "Identifying Risk Factors Leading to Single-vehicle Rollover Collisions". *International Conference on Civil Engineering Research*, Surabaya, Indonesia, Oct. 2012.
- Dabbour, E., Easa, S., and Hossain, A. (2011). "Statistical models to measure drivers' perception-reaction times and acceleration rates when responding to collision warning systems". *International Conference on Driver Behaviour and Training*, Paris, Nov. 2011.
- Dabbour, E. (2010). "Simulating an Intersection Collision Warning System Using Matlab". *Proceedings of the 7<sup>th</sup> International Conference on Engineering Computational Technology*, Valencia, Sept. 2010.
- Dabbour, E., Easa, S., and Hossain, K. (2010). "Implementing Human Factors into Intersection Collision Warning Systems". *Proceedings of the 8<sup>th</sup> International Transportation Specialty Conference*, Winnipeg, June 2010.
- Dabbour, E. and Easa, S. (2008). "Proposed Collision Warning System for Left-Turning Vehicles at Intersections". *Proceedings of the 36<sup>th</sup> annual conference, Canadian Society for Civil Engineering*, Quebec City, June 2008.
- Dabbour, E. and Easa, S. (2008). "New Collision Warning System for Turning Vehicles at TWSC Intersections". *Proceedings of the 10<sup>th</sup> International Conference on Application of Advanced Technologies in Transportation*. Athens, May 2008.
- Dabbour, E. and Easa, S. (2006). "Proposed Geometric Features to Improve Safety of Modern Roundabouts". *Proceedings of the Transportation Research Board 85<sup>th</sup> Annual Meeting*, Washington, D.C., Jan. 2006.
- Dabbour, E., Easa, S., and Abd-El-Halim, A.O. (2003). "Design Guidelines for Horizontal Reverse Curves Combined with Vertical Alignments". *Proceedings of the 31<sup>st</sup> Annual Conference, Canadian Society for Civil Engineering*, Moncton, June 2003.

## MEDIA APPEARANCES

- An interview with *CTV News* (Ottawa) about traffic safety in the City of Ottawa and the implementation of traffic calming measures in Ontario, March 13, 2024 (<https://ottawa.ctvnews.ca/new-criteria-for-permanent-traffic-calming-measures-in-ottawa-cause-for-concern-expert-1.6806624>).
- An interview with “*The National*” newspaper (the largest English-language newspaper in the United Arab Emirates) about traffic safety and the design of municipal roads in the City of Abu Dhabi, March 12, 2015 (<https://www.thenationalnews.com/uae/transport/on-the-straight-and-narrow-road-layout-changes-suggested-for-safer-driving-in-uae-1.25977>).