

1. General Information

Nael Alsaleh

PhD Candidate in Transportation Engineering,
President of Toronto Metropolitan University-Institute of Transportation Engineers (TMU-ITE) student chapter,
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2. Education

Toronto Metropolitan University (TMU), Canada

Doctor of Philosophy in Civil Engineering/ Transportation, Laboratory of Innovations in Transportation (LiTrans), September 2019 – Till now.

CGPA (Course Load Completed): 4.33/4.33

Research Progress: Graded "Exceptional Performance" in all progress reports.

Candidacy Examination: Passed both the written and oral exams on April 26, 2021

Supervisor: Dr. Bilal Farooq

Jordan University of Science and Technology (JUST), Jordan.

Master of Science in Civil Engineering/ Transportation, February 2016 – October 2017. Full scholarship award from the Scientific Research Support Fund / Ministry of Higher Education – Jordan.

Thesis Title: "Turbo Roundabout Usage In Lieu of Conventional Roundabouts for the Jordanian Traffic Conditions". Awarded as the best Master thesis at Jordan University of Science and Technology for the year of 2018.

CGPA: 4.17/4.00 - Distinguished

Supervisor: Dr. Mohammad Khasawneh

Jordan University of Science and Technology (JUST), Jordan.

Bachelor of Engineering, Civil Engineering, September 2011 – August 2015.

CGPA: 85.2% - Excellent

3. Leadership Skills

3A. President of Toronto Metropolitan University-Institute of Transportation Engineers (TMU-ITE) student chapter, 2021-2022 Academic Year

Responsibilities include but not limited to the following:

- Communicating with the Faculty Advisor
- Chair business and general meetings

- Ensures active internal and external communications
- Plans and organizes membership drives
- Supervises chapter activities and committees
- Names any committees and appoints chairs.

3B. Moderator, Innovative Sessions, ITS Canada 2021 Virtual Conference, June 21-22, 2021

Moderating three individual presentations. Main Responsibilities:

- Keep the discussion flowing
- Invite people to ask questions of the presenter
- Prepare few questions to fill any gaps.
- Welcome new people into the conversation with a quick recap of the discussion.

3C. Student Supervision

- Co-supervised Maryam Elbeshbishy, undergraduate student, with Dr. Bilal Farooq, Toronto Metropolitan University, May 2021 – January 2022.
- Co-supervise Farah Al Tarifi, M.Sc. student, with Dr. Nawal Louzi, Al-Ahliyya Amman University, January 2021 – Till now

3D. Review Activities

- Transportation Research Board (TRB) 101st Annual Meeting, 2022. (One Manuscript Reviewed).
- Journal of Transport Geography. (One Manuscript Reviewed).
- Transportation Research Record (TRR). (Two Manuscript Reviewed).

3E. Speaker at University of Cambridge, Martin Centre for Architectural and Urban Studies, January 2021.

Presenting “*Spatio-Temporal Demand Modelling for On-Demand Transit Services*” work In *Applied Urban Modelling Workshop (AUM2020)*.

4. Honuors and Awards

- Ontario Graduate Scholarship (OGS) Award (Merit Based) for the 2022-2023 academic year, Ministry of Colleges and Universities, Ontario. The award is \$15,000 provided to Ontario's top graduate students who demonstrate a high level of academic, research, and leadership achievements.
- International PhD Tuition Fees Conversion Scholarship (Competitive Based), Yeates School of Graduate Studies, Toronto Metropolitan University, from Fall 2021 to Summer 2023. The scholarship is provided as a recognition of the outstanding academic and research achievements.
- The First Place Award in The Best Master Thesis at JUST for the 2017-2018 academic year (Competitive Based), Faculty of Graduate Studies, Jordan University of Science and Technology.
- Full-Funded Masters Scholarship Award (Competitive Based), Scientific Research Support Fund, Ministry of Higher Education, Jordan.
- 2014-2015 Dean's Honour List, Faculty of Engineering, Jordan University of Science and Technology, in recognition of the outstanding academic performance.

- 2011-2012 Dean's Honour List, Faculty of Engineering, Jordan University of Science and Technology, in recognition of the outstanding academic performance.

5. Certifications

- Institute for Engineering Teaching, Canadian Engineering Education Association, June 2021.
- Machine Learning with Python, Cognitive Class, IBM, October 2019. (Online Course)
- Data Analysis with Python, Cognitive Class, IBM, October 2019. (Online Course)
- Python 101 For Data Science, Cognitive Class, IBM, June 2019. (Online Course)

6. Publications

- 1) Alsaleh, N., Elbeshbishy, M., & Farooq, B. (2022). Sustainability Analysis of Shared On-Demand Transit with a focus on Equity, Diversity, and Inclusion. (*Under Preparation*).
- 2) Alsaleh, N., & Farooq, B. (2022). The Impact of COVID-19 Pandemic on Ridesourcing Services Differed Between Small Towns and Large Cities. (*Under Review*). Url: <https://arxiv.org/pdf/2201.10961.pdf>
- 3) Ansar, S. M., Alsaleh, N., & Farooq, B. (2022). Behavioural Modelling of Automated to Manual Control Transition in Conditionally Automated Driving. (*Under Review*). Url: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4006056
- 4) Ansar, S. M., Alsaleh, N., & Farooq, B. (2022). Analysis of Driver Behaviour Towards CAV Control Transition in Mixed Traffic Environment. *Transportation Research Board (TRB) 101st Annual Meeting, January 2022*.
- 5) Alsaleh, N., Farooq, B., Zhang, Y., & Farber, S. (2021). On-Demand Transit User Preference Analysis using Hybrid Choice Models. (*Under Review*). Url: <https://arxiv.org/pdf/2102.08256.pdf>
- 6) Alsaleh, N., & Farooq, B. (2021). Interpretable data-driven demand modelling for on-demand transit services. *Transportation Research Part A: Policy and Practice, 154*, 1-22. Url: <https://arxiv.org/pdf/2010.15673.pdf>
- 7) Sanaullah, I. (equal contribution), Alsaleh, N. (equal contribution), Djavadian, S., & Farooq, B. (2021). Spatio-temporal analysis of on-demand transit: A case study of Belleville, Canada. *Transportation Research Part A: Policy and Practice, 145*, 284-301. Url: <https://arxiv.org/pdf/2012.02600.pdf>
- 8) Khasawneh, M. A., Aljarrah, M., & Alsaleh, N. (2021). Artificial Neural Network (ANN) Approach to Predict LWST Values from Friction and Texture Measurements. *International Journal of Engineering and Technology, 13* (3), 31-35. Url: <http://www.ijetch.org/vol13/1191-K1-001.pdf>
- 9) Alsaleh, N., & Farooq, B. (2021). Spatio-Temporal Demand Modelling for On-Demand Transit Services. Presented at Applied Urban Modelling Workshop (AUM2020), Martin Centre for Architectural and Urban Studies, University of Cambridge.
- 10) Khasawneh, M. A., & Alsaleh, N. M. (2018). Turbo Roundabout Usage in Lieu of Conventional Roundabouts for the Jordanian Traffic Conditions. *International Journal of Civil Engineering, 16*(12), 1725-1738.
- 11) Alsaleh, N. M., & Shbeeb, L. (2018). Turbo, flower and conventional roundabouts in Jordan. In *Proceedings of 6th Annual international Conference on Architecture and Civil Engineering (ACE 2018), May* (pp. 14-15).

- 12) Shbeeb, L. I., & Alsaleh, N. M. (2018). Evaluation of School Zone Improvement Schemes. In *Proceedings of 6th Annual International Conference on Architecture and Civil Engineering (ACE 2018), May* (pp. 14-15).

7. Teaching Experience

Graduate Assistant, Toronto Metropolitan University, Winter 2020 & Winter 2021.

Main Responsibilities:

- Preparing written materials for Transportation Engineering tutorial classes.
- Demonstrating and explaining Transportation Engineering course material.
- Helping students perform and solve Transportation Engineering course assignments.
- Grading students' assignments.

Full-Time Lecturer of Civil Engineering, Al-Ahliyya Amman University, October 2017 – September 2019.

Preparing and teaching the following civil engineering courses:

- Transportation Engineering.
- Engineering Statistics.
- Geotechnical Engineering.
- Geotechnical Engineering Laboratory.
- Computer Applications in Civil Engineering.
- Civil Engineering Drawing.
- Numerical Analysis.

Part-Time Lecturer of Civil Engineering, Al Hussein Technical University (HTU), February 2019 – July 2019.

Part-time lecturer at HTU School of Construction Technology and Built Environment that follows Pearson BTEC (Business and Technology Education Council) qualifications and standards, where my responsibilities include:

- Teaching Geotechnics & Soil Mechanics course.
- Developing the assignment brief & conducting both formative and summative assessments.

8. Practical Experience

Traffic Simulator Consultant, Dar Al Omran Company, Jordan, April 2018 – January 2019

Part-time traffic simulator consultant at Irbid City Center Upgrading Project. Main responsibilities:

- Evaluate, analyze, and simulate the existing traffic conditions.
- Propose and simulate different traffic scenarios to enhance the level of service of Irbid city.
- Preparing a fully detailed traffic report.

Trainee at Consolidated Contractor Company (CCC), Qatar, June 2015 – August 2015

Professional engineering training as a prerequisite for obtaining a bachelor's degree in civil engineering.

9. Presentations and Conferences

▪ **Conferences**

- Ansar, S. M., Alsaleh, N., & Farooq, B. Analysis of Driver Behaviour Towards CAV Control Transition in Mixed Traffic Environment. *Transportation Research Board (TRB) 101st Annual Meeting*, Washington DC, USA, January 9-13, 2022.
- Khasawneh, M. A., Aljarrah, M., & Alsaleh, N. Artificial Neural Network (ANN) Approach to Predict LWST Values from Friction and Texture Measurements. *11th International Conference on Key Engineering Materials*. March 26-29, 2021.
- Alsaleh, N., & Farooq, B.. Spatio-Temporal Demand Modelling for On-Demand Transit Services. *Applied Urban Modelling Workshop (AUM2020)*, Martin Centre for Architectural and Urban Studies, University of Cambridge. January 28, 2021
- Alsaleh, N., & Shbeeb, L. Turbo, flower and conventional roundabouts in Jordan. *6th Annual international Conference on Architecture and Civil Engineering*, Singapore, May 14-15, 2018.
- Shbeeb, L. I., & Alsaleh, N. Evaluation of School Zone Improvement Schemes. *6th Annual international Conference on Architecture and Civil Engineering*, Singapore, May 14-15, 2018.
- Khasawneh, M. A., & Alsaleh, N. Turbo Roundabout Usage in Lieu of Conventional Roundabouts for the Jordanian Traffic Conditions. *8th International Conference on Engineering, Project and Product Management*, Amman, Jordan, September 19-21, 2017.

▪ **Presentations**

- Alsaleh, N., Farooq, B., & Elbeshbishy, M. (2021, December). Exploring On-Demand Transit Options for The Town of Innisfil (Update), *Town of Innisfil*.
- Alsaleh, N., Farooq, B., & Elbeshbishy, M. (2021, October). Exploring On-Demand Transit Options for The Town of Innisfil, *Town of Innisfil*.
- Alsaleh, N., & Farooq, B. (2021, August). Impacts of COVID-19 Pandemic on Ride-hailing Services, *Town of Innisfil*.
- Alsaleh, N., & Farooq, B. (2021, July). Spatio-temporal Analysis of Innisfil Transit Service, *Town of Innisfil*.
- Alsaleh, N., Farooq, B., & Elbeshbishy, M. (2021, June). On-Demand Crowdsourced Mobility Service in The Town of Innisfil, *Town of Innisfil*.
- Alsaleh, N., & Farooq, B. (2021, February). On-Demand Transit User Preference Analysis using Hybrid Choice Models. *In Laboratory of Innovations in Transportation (LiTrans)*, Civil Engineering Department, Toronto Metropolitan University.
- Alsaleh, N., & Farooq, B. (2021, January). *Spatio-Temporal Demand Modelling for On-Demand Transit Services*. *In Applied Urban Modelling Workshop (AUM2020)*, Martin Centre for Architectural and Urban Studies, University of Cambridge.

- Alsaleh, N., & Farooq, B. (2021, January). Machine Learning Based Demand Modelling for On-Demand Transit Services. *In seminar presentation*, Civil Engineering Department, Toronto Metropolitan University.
- Alsaleh, N., & Farooq, B. (2020, October). On-Demand Transit User Preference Analysis using Hybrid Choice Models. *In Laboratory of innovations in transportation (LiTrans)*, Civil Engineering Department, Toronto Metropolitan University.
- Alsaleh, N., & Farooq, B. (2019, December). Machine Learning Based Demand Modelling for On-Demand Transit Services. *In Laboratory of Innovations in Transportation (LiTrans)*, Civil Engineering Department, Toronto Metropolitan University.

10. Workshops

- Alsaleh, N., & Farooq, B. (2021, January). *Spatio-Temporal Demand Modelling for On-Demand Transit Services*. *In Applied Urban Modelling Workshop (AUM2020)*, Martin Centre for Architectural and Urban Studies, University of Cambridge.
- Attending a one-day workshop titled “Autonomous Vehicle Innovation Network Partnering Forum.” by Ontario Centres of Excellence and Autonomous Vehicle Innovation Network (AVIN), held in Marriott Downtown at CF Toronto Eaton Centre, Toronto, ON, Canada, October 31, 2019.
- Presenting a lecture and organizing a one-day workshop titled “Assessment of Some International Practices to Improve Road Safety”, held in Al-Ahliyya Amman University, Amman, Jordan, December 12, 2018.

11. Computer Skills

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| ➤ Modelling, Data Analysis, and Coding | - Python
- MATLAB |
| ➤ Transport Modelling | - Simulation of Urban MObility (SUMO)
- MATLAB
- PTV Solutions (VISSIM, VISUM, VISTRO) |
| ➤ Road and Intersection Design Tools | - AutoCAD and AutoCAD Civil 3D.
- Transoft Solutions for intersections and parking management, including TORUS Roundabout, AutoTURN, Nexus Intersection, and ParkCAD. |
| ➤ Geo-Spatial Data Analysis & Visualization | - GIS |

12. Professional Affiliation

- Member of the Institute of Transportation Engineers (ITE) since May 2021.
- Member of the Toronto Metropolitan University-Institute of Transportation Engineers (TMU-ITE) student chapter since May 2021.
- Member of Jordan Association of Engineers (JAE) since September 2015.
- Member of Jordanian Roads Society (JRS) since February 19, 2019.

13. References

Available upon request.