Curriculum Vitae-2025

Nasreen Ahmed Hussein

PERSONAL INFORMATION:

Surname: Hussein

First name and initial: Nasreen A. H.

Date of Birth: 1st of January 1978

Nationality: Iraqi Kurdish

Native language: Kurdish

Other languages: English-Arabic-Persian

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A- Education and Qualification

- B.Sc. Engineering/Civil Engineering, University of Duhok, Kurdistan Region, Iraq. 1995-1999.

- M.Sc. Engineering/Civil Engineering/ Transportation Engineering. University of Salahaddin-Erbil, Kurdistan Region, Iraq. 2001-2003.

- PhD Faculty of Science, Engineering and Technology\ Department of Civil Engineering\ Swinburne University of Technology, Melbourne, Australia. 2012-2016. Scholarship from Iraqi Government, Ministry of Higher Education and Scientific Research.

B- Previous Occupation:

- **Academic:**
- Assistant Lecturer, Faculty of Engineering\ Duhok University. 2003-2012.
- Lecture, College of Engineering\ Duhok University, 2017-2022

C- Current Occupation

- Assistant Professor, College of Engineering\ University of Duhok, from 25.10.2022

D- List of Publications (SCIENTIFIC RESEARCH):

Journal papers

1. Hussein, N. A. 2003. A study of flow-speed-density relationships in Duhok city road network, M.Sc. thesis.

2. Abdul-Razaq, B. N. Hussein, N. A. & Aswad, N. H. 2005. Influence of zones characteristics on the CBD parking in Duhok city, Journal of Duhok University, Vol. 8, No. 2, pp. 143-151.

3. Hussein, N. A. & Saeed A. F. 2008. Development of traffic flow models at networks in Duhok city, Zanko Journal of Salahaddin University, Vol. 20, No. 5.

4. Al-Taie, A.M. Aswad, N.H. & Hussein, N. A. 2012. Characteristics of parking garages within multi-story building in Duhok CBD area, Al-Rafidain Engineering Journal, Vol.20, No. 3, pp.155-166.

5. Hussein, N., Hassan R. (2017) "Surface condition and safety at signalised intersections," International Journal of Pavement Engineering, DOI: 10.1080/10298436.2016.1141411.

6. Hussein, N., Hassan, R. (2017) "An assessment of safety at signalised intersections post resurfacing," International Journal of Transport Development and Integration, 1 (2), pp. 256-266.

7. Hussein, N., Hassan R. (2018) "Evaluating safety effectiveness of surface treatment at signalised intersections: A before and after study," International Journal of Pavement Engineering. DOI: 10.1080/10298436.2016.1234279.

8. NA HUSSEIN. (2020) "EVALUATING DRIVER BEHAVIOR IN YELLOW INTERVAL AT SIGNALIZED INTERSECTIONS" Journal of Duhok University 23 (2), 142-156.

9. N Hussein, R Hassan, MT Fahey. (2021) "Effect of pavement condition and geometrics at signalised intersections on casualty crashes" Journal of safety research 76, 276-288.

10. NA Hussein. (2022) “Synchro software-based alternatives for improving traffic operations at signalized intersections” ARO-THE SCIENTIFIC JOURNAL OF KOYA UNIVERSITY 10 (1), 123-131.

11. JN HASAN, NA HUSSEIN. (2022) “Traffic assessment and optimization at signalized intersections: A review study” Journal of Duhok University 25 (1), 124-141.

12. NA Hussein, R Hassan. (2023) “Analysis of the Contributory Factors to Accidents at Signalized Intersections using Generalized Estimating Equation with Negative Binomial Distribution” Zanco Journal of Pure and Applied Sciences 35 (2), 29-40.

13. N Hussein. (2023) “Identifying High Crash Signalized Intersections and Application of Highway Safety Manual Predictive Method to Reduce Crashes” Passer journal of basic and applied sciences, Paper No. 09.

14. Hasan J. and Hussein N. (2025). Simulation Based Optimization of Traffic Performance at Signalized Intersections, Accepted for publication in the Journal of Engineering and Sustainable Development.

Conference Papers

1. Hussein, N., Hassan, R., Evans, R. (2015) “Assessing the impact of pavement surface condition on the performance of signalised intersections”, ICMPA9, International Conference on Managing Pavement Assets, 18-21 May 2015, Virginia, Washington DC. USA.

2. Hussein, N., Hassan, R. (2016) “An assessment of safety at signalised intersections post resurfacing,” Presented in Urban Transport 2016, 21-23 June, Greece.

3. Hussein, N., Hassan, R. (2016) “Safety effectiveness of surface treatment: A comparison of Empirical Bayes and Naïve before and after study”, 2nd IRF Asia Regional Congress & Exhibition, 16-20 October, Kuala Lumpur, Malaysia.

4. Hussein, N., Hassan, R., Fahey, M. (2016) “Relationship between intersection geometric characteristics and crash occurrence”, 27 ARRB Conference, 16-18 November, Melbourne, Victoria, Australia.

5. Hussein, Nasreen; Hassan, Rayya; Fahey, Michael; (2019). An assessment of the effect of pavement surface condition on performance of signalised intersections, WIT Transactions in the Built Environment, Proceedings of the 24th International

Conference on Urban Transport and the Environment, Seville, Spain, 19–21 September 2018, Vol. 182.

6. Hasan, J.N., Alzeebaree, R. and Hussein, N.A., 2024, June. Using polymers to improve asphalt pavement performance, A review. In *AIP Conference Proceedings* (Vol. 2944, No. 1, p. 020021). AIP Publishing LLC.

Conference Presentation

1. Hussein, N., Hassan, R. (2015) "A before and after study of casualty crashes at signalised intersections", 33rd CAITR Conference. (The Confederation of Australian Institutes for Transport Research.), 12-13 February.

2. Hussein, N. (2020) "Evaluating Driver Behavior in Yellow Interval at Signalized Intersections", 3rd International Conference on Recent Innovations in Engineering College of Engineering / University of Duhok / 9-10 September 2020.

3. Hussein, N. (2023) "Identifying High Crash Signalized Intersections and Application of Highway Safety Manual Predictive Method to Reduce Crashes" 4th International Conference on Recent Innovations in Engineering ICRIE 2023, University of Duhok, College of Engineering, 13th – 14th September 2023.

4. Hasan, J. and Hussein. N. (2025) "Impact of Road Median Characteristics on Safety Performance: A Review Study", 5th International Conference on Advanced Science and Engineering (ICOASE2025),

E- TEACHING SKILL:

Traffic Engineering
Pavement Management

F- TRAINING COURSES and Workshops:

- Statistical Workshops\ Swinburne University of technology (2012-2013)
- Scientific seminars and presentations in civil engineering\ Swinburne University of technology 2012.

G- Higher Education Supervision

1. Jiman Naji Hasan, (2022) "Assessment and Optimization of Traffic Performance at Signalized Intersections in Duhok City using HCM and Synchro Software"

Master Thesis. Duhok Polytechnic University (DPU), Technical College of Engineering, Department of Highways and Bridges.

2. Rafal Faiz Hadi, (2024) "Capacity-Based Safety Assessment at Signalized Intersections in Duhok City" PhD Thesis. Duhok Polytechnic University (DPU), Technical College of Engineering, Department of Highways and Bridges.

H- Defending Sessions of Postgraduate Students

- Assessment and Optimization of Traffic Performance at Signalized Intersections in Duhok City using HCM and Synchro Software, 2022. M.Sc. Duhok Polytechnic University (DPU).

- Assessing and Improving the Safety of Duhok City Roads using Crash Modification Factors, 2021. M.Sc. Duhok Polytechnic University (DPU)

- A STUDY OF THE EFFECT OF TAXIS ON THE TRAFFIC FLOW IN DUHOK CITY, 2023. M.Sc. Duhok Polytechnic University (DPU).

- Applicability of Superpave Mix Design and Gyratory Compaction Levels in Iraqi Kurdistan Region. 2023. PhD. Salahaddin University – Erbil.

- Performance of DG and SMA mixes made with polymers and zeolite warm additives. 2023. PhD. University of Duhok.

- Performance Characteristics of Porous Asphalt Mixtures Based Modifiers. 2023. PhD. University of Duhok.

- Capacity Enhancement and Flow Efficiency of Arterial Roads: An Approach for Urban Sustainability in Erbil City. 2025, MSc, Erbil Polytechnic University

- Evaluation the Effect of Waste Engine Oil (WEO) on the Properties of Different Grades of Asphalt Binder. 2025, MSc, Salahaddin University-Erbil

I- Scientific Evaluation of Thesis

- Parking study in a commercial area in the left bank of Mosul city. 2023. M.Sc. University of Mosul.
- Performance Analysis of Hot Mix Asphalt Mixtures Composed of Nano-sized Fillers. 2025. MSc. Salahaddin University-Erbil

Referees:

1. Dr. Rayya Hassan, Swinburne University of Technology | Victoria 3122 | Australia. Ph: +61 3 9214 8284, Fax +61 3 9214 8264, Email: rahassan@swin.edu.au
2. Dr. Aso Faiz Talabany, Salahaddin University, Erbil. aso.talabany@su.edu.krd