

Dr. Oren E. Nahum, Ph.D. – Curriculum Vitae

- Name:** Oren Efraim Nahum
- Address:** 4 Emanuel Zamir St., Petah-Tikwa, Israel
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- E-Mail:** oren.e.nahum@gmail.com
- Marital Status:** Married + 2
- Place of Birth:** Israel
- Date of Birth:** February 6th, 1974
- Languages:** Hebrew, English
- Military Service:** October 1994 – October 1997. Operations Sergeant at an army reserve division.
Awarded outstanding soldier by chief logistics officer (Jewish New Year’s Eve, September 25, 1997)
- Education:** Academic:
- **1992-1994** – B.A. in logistics, economics and interdisciplinary studies, Bar-Ilan University, Faculty of Social Sciences, The Interdisciplinary Department of Social Sciences.
 - **1997-2001** – B.Sc.T.E. and a teaching diploma in computerized systems, Tel-Aviv University as part of Holon Academic Institute of Technology, Department of Computer Science.
Final Project: *Mining Association and Inverse Association Rules in Large Database.*
Project Adviser: Prof. Moti Schneider.
 - **2001-2003** – Active participation as an unregistered student for bioinformatics - computer science track (7 courses) at Weizmann Institute of Science.
 - **2005-2007** – M.A. in logistics management, Bar-Ilan University, Faculty of Social Sciences, The Interdisciplinary Department of Social Sciences.
Thesis: *Developing a Model for the Stochastic Time-Dependent Vehicle-Routing Problem.*
Thesis Adviser: Dr. Yuval Hadas.
 - **2008-2013** – Doctor of Philosophy (Ph.D.) in logistics management, Bar-Ilan University, Faculty of Social Sciences, Department of Management.
Thesis: *The Real-Time Multi-Objectives Vehicle Routing Problem.*
Thesis Advisers: Prof. Uriel Spiegel, Prof. Reuven Cohen & Dr. Yuval Hadas.
 - **2013-2015** – Postdoctoral Fellow in Computational Chemistry, Department of Chemistry, Bar-Ilan University.
Adviser: Prof. Hanoch Senderowitz.

Other:

- **2003 – John Bryce:** Microsoft Approved Course: Programming with C# (2124CC).
- **2005 – John Bryce:** Oracle and the PL/SQL language.
- **2006 – John Bryce:** Unix Fundamentals, with emphasis on Red Hat Linux and Bash Shell.
- **2006 – John Bryce:** Bash Shell Scripting.

Experience:

Current:

- **Bar-Ilan University – 2010-Present**
Adjunct Lecturer, Faculty of Social Sciences, Department of Management.
- **Ashkelon Academic College – 2017-Present**
 - **2017-Present** - Lecturer, Faculty of Economics, the Economics and Logistics track.
 - **2022-Present** - Head of the Department of Economics and Logistics, Faculty of Economics.

Previous:

- **Compaq Computers, Israel – 1998-2000**
Omri Project – Clalit Health Services. Communication infrastructure software development (C++) and troubleshooting.
- **DXC Technology – 2000-2018**
Aviv project – Management of the population registry of the State of Israel (MOI). C++ programming under the OpenVMS operating system. Working with Ingres and Oracle 10g databases. Dot Net programming including Windows, WEB and BizTalk applications, as well as working with Active Directory. In charge of carrying the biometric acquisition for the production of biometric identity cards and passports.
- **Holon Academic Institute of Technology – 2000-2001**
Teacher Assistant
- **HP, Israel – 2008-2009**
Cattle Breeder project - A project of converting a VMS/Ingres system to a Dot-Net/Oracle 10g system.
- **College of Engineering Sami Shamon – 2011-2012**
Adjunct Lecturer, Department of Industrial Engineering and Management.
- **The Academic College of Tel Aviv-Yafo – 2015-2016**
Adjunct Lecturer, School of Management and Economics, Department of Information Systems.
- **RigGoh – 2017-2018**
Academic advisor.

Publications:

Journals:

1. **Nahum, O. E., Hadas, Y., & Spiegel, U. (2014).** Multi-Objective Vehicle Routing Problems with Time Windows: A Vector Evaluated Artificial Bee Colony Approach. *International Journal of Computer and Information Technology*, 3(1), 41-47.

2. **Nahum, O. E.**, Hadas, Y., Spiegel, U., & Cohen, R. (2014). Multi-Objective Stochastic VRP – Fitness Calculation and Algorithm Converges Using a Generic Genetic Algorithm. *International Journal of Computer System*, 1(2), 30-44.
3. Yosipof, A., **Nahum, O. E.**, Anderson, A. Y., Barad, H.-N., Zaban, A., & Senderowitz, H. (2015). Data Mining and Machine Learning Tools for Combinatorial Material Science of All-Oxide Photovoltaic Cells. *Molecular Informatics*, 34(6-7), 367-379.
4. **Nahum, O. E.**, Yosipof, A., & Senderowitz, H. (2015). A Multi-Objective Genetic Algorithm for Outlier Removal. *Journal of chemical information and modeling*, 55(12), 2507-2518.
5. Hadas, Y., **Nahum, O. E.** (2016). Urban Bus Network of Priority Lanes: A Combined Multi-Objective and Multi-Criteria Approach. *Transport Policy*, 52, 186-196.
6. **Nahum, O. E.**, Hadas, Y., Rossi, R., Gastaldi, M., & Gecchele, G. (2017). Network Design Model with Evacuation Constraints Under Uncertainty. *Transportation Research Procedia*, 22, 489-498.
7. **Nahum, O. E.**, Hadas, Y., Zanini, M., Pellegrino, C., Rossi, R., & Gastaldi, M. (2017). Stochastic Multi-Objective Evacuation Model Under Managed and Unmanaged Policies. *Transportation Research Procedia*, 27, 728-735.
8. **Nahum, O. E.**, Hadas, Y., & Kalish, A. (2019). A Combined Freight and Passenger Planes Cargo Allocation Model. *Transportation Research Procedia*, 37, 354-361.
9. **Nahum, O. E.**, Wachtel, G., Hadas, Y. (2020). Planning Tourists Evacuation Routes with Minimal Navigation Errors. Accepted for publication in *Transportation Research Procedia*, 47, 235-242.
10. **Nahum, O. E.**, & Hadas, Y. (2020). Multi-Objective Optimal Allocation of Wireless Bus Charging Stations Considering Costs and the Environmental Impact. *Sustainability*, 12(6), 2318.
11. Wachtel, G., Schmocker, J. D., Hadas, Y., Yuhan, G.; **Nahum, O. E.**, & Ben-Moshe, B., (2020). Planning for Tourist Urban Evacuation Routes: Collecting and Providing Information. *Environment and Planning B: Urban Analytics and City Science*, 48(5), 1108-1125.
12. Bareli, S., Geri, L., Nikulshin, Y., **Nahum, O. E.**, Hadas, Y., Yeshurun, Y., Yaniv, E., & Wolfus, S., (2023). Effect of Coils Geometry on Dynamic Wireless Power Transfer for Electric Vehicles. *Acta Scientific Applied Physics*, 3(4), 23-33.

Chapters in Books

1. **Nahum, O. E.**, & Hadas, Y. (2017). A framework for solving Real-Time Multi-Objective VRP. In J. Zak, Y. Hadas, & R. Rossi (Eds.), *Advanced Concepts, Methodologies and Technologies for Transportation and Logistics* (Vol. 572, pp. 103-120): Springer International Publishing.

Presentations at Conferences & Conference Proceedings:

1. **Nahum, O. E.**, & Hadas, Y. (2009). *Developing a Model for the Stochastic Time-Dependent Vehicle-Routing Problem*. Proceeding of the 2009 International Conference on Computers & Industrial Engineering (CIE 39), The University of Technology of Troyes, Troyes, France.
2. **Nahum, O. E.**, & Hadas, Y. (2010). *A Comparison of Two Algorithms for the Stochastic Time-Dependent Vehicle-Routing Problem*. Proceeding of the Transportation Research Board 89th Annual Meeting (TRB 2010), Washington DC, USA.
3. **Nahum, O. E.**, Hadas, Y., & Spiegel, U. (2013). *A Vector Evaluated Artificial Bee Colony Approach for Solving Multi-Objective Vehicle Routing Problems with Time Windows*. Proceeding of the Transportation Research Board 92nd Annual Meeting (TRB 2013), Washington DC, USA.
4. **Nahum, O. E.**, Hadas, Y., Spiegel, U., & Cohen, R. (2014). *The Real-Time Multi-Objective Vehicle Routing Problem - Case Study: Information Availability and the Quality of the Result*. Proceeding of the Transportation Research Board 93rd Annual Meeting (TRB 2014), Washington DC, USA.
5. Yosipof, A., **Nahum, O. E.**, & Senderowitz, H. (2015). *Data Mining Techniques Applied to the Study of New Light Absorbers*. Paper presented at the 2nd International Workshop: Metal Oxide Materials Discovery & Applications, Jerusalem, Israel.
6. Yosipof, A., **Nahum, O. E.**, & Senderowitz, H. (2015). *Material Informatics*. Paper presented at the 2nd International Workshop: Metal Oxide Materials Discovery & Applications, Jerusalem, Israel.
7. **Nahum, O. E.**, & Hadas, Y. (2015). *A Framework for Solving Real-Time Multi-Objective VRP*. Paper presented at the 18th meeting of the EURO Working Group on Transportation (EWGT 2015), Delft, The Netherlands.
8. Hadas, Y., & **Nahum, O. E.** (2015). *Urban Bus Network of Priority Lanes: A Combined Multi-Objective and Multi-Criteria Approach*. Proceeding of the Conference on Advanced Systems in Public Transport 2015 (CASPT 2015), Rotterdam, The Netherlands.
9. **Nahum, O. E.**, Hadas, Y., Rossi, R., Gastaldi, M., & Gecchele, G. (2016). *Network Design Model with Evacuation Constraints Under Uncertainty*. Proceeding of the 19th meeting of the EURO Working Group on Transportation (EWGT 2016), Istanbul, Turkey.
10. **Nahum, O. E.**, & Hadas, Y. (2017). *Multi-Objective Evacuation Network Design with Chance Constraints*. Proceeding of the Transportation Research Board 96th Annual Meeting (TRB 2017), Washington DC, USA.
11. **Nahum, O. E.**, Hadas, Y., Zanini, M., Pellegrino, C., Rossi, R., & Gastaldi, M. (2017). *Stochastic Multi-Objective Evacuation Model Under Managed and Unmanaged Policies*. Proceeding of the 20th meeting of the EURO Working Group on Transportation (EWGT 2017), Budapest, Hungary.

12. Hadas, Y., **Nahum, O. E.**, Gastaldi, M., & Rossi, R. (2018). *Optimal Evacuation Planning Under a Partial Traffic Management Regime*. Proceeding of the Transportation Research Board 97th Annual Meeting (TRB 2018), Washington DC, USA.
13. Hovav, S., Levner, I., **Nahum, O. E.**, & Szabo, I. (2018). *Enhancing the Performance of Automatic Logistic Centers by Optimizing the Assignment of Material Flows to Workstations and Flow Racks*. Paper presented at the 20th International Conference on Operations Research and Industrial Engineering (ICORIE 2018), New-York, USA.
14. **Nahum, O. E.**, Hadas, Y., & Kalish, A. (2018). *A Combined Freight and Passenger Planes Cargo Allocation Model*. Proceeding of the 21st Meeting of the EURO Working Group on Transportation (EWGT 2018), Braunschweig, Germany.
15. **Nahum, O. E.**, Wachtel, G., Hadas, Y. (2019). *Planning Tourists Evacuation Routes with Minimal Navigation Errors*. Paper presented at the 2019 annual meeting of the Operations Research Society of Israel (ORSIS 2019), Shfaim, Israel.
16. **Nahum, O. E.**, Wachtel, G., Hadas, Y. (2019). *Planning Tourists Evacuation Routes with Minimal Navigation Errors*. Proceeding of the 22nd Meeting of the EURO Working Group on Transportation (EWGT 2019), Barcelona, Spain.
17. Wachtel, G., Schmöcker, J. D., Gao, Y., **Nahum, O. E.**, & Hadas, Y. (2020). *Planning for City Tourist Evacuation Routes: Collecting and Providing Information*. Paper presented at the Transportation Research Board 99th Annual Meeting (TRB 2020), Washington DC, USA.
18. Hadas, Y., & **Nahum, O. E.** (2020). *Multi-Objective Optimal Allocation of Wireless Bus Charging Stations Considering Costs and Environmental Impact*. Paper presented at the Transportation Research Board 99th Annual Meeting (TRB 2020). Washington DC, USA.
19. Hadas, Y., Ben-Moshe, B., Wachtel, G., **Nahum, O. E.**, Schmöcker, J. D., Gao, Y. & Sabashi, K. (2021). *Assessing the Navigation Error Characteristics of Residents and Tourists During Evacuation – a Combined Simulation and Virtual Reality Approach*. Paper presented at the 8th International Symposium on Transport Network Reliability (INSTR 2021), Stockholm, Sweden.
20. **Nahum, O. E.**, Mayost, O. & Hadas, Y. (2022). *Developing a Simulation Model for Emergency Evacuation, Considering Navigation Errors*. Paper presented at the 2nd Israeli Smart Transportation Research Center Annual Conference (ISTR22), Haifa, Israel.
21. **Nahum, O. E.**, Hadas, Y. & Wolfus, S. (2022). *Optimal Charging Station Deployment for Dynamic Wireless Charging in Electrical Bus Route*. Paper presented at the Conference on Advanced Systems in Public Transport 202 (CASPT 2022), Tel-Aviv, Israel.

Work in Progress & Submitted Papers:

1. Hovav, S., **Nahum, O. E.**, Levner, I., & Hadas, Y. (2019). *Enhancing the Performance of Automatic Logistic Centers by Optimizing the Assignment of Material Flows to Workstations and Flow Racks*. Submitted to International Journal of Logistics Management.

2. Hadas, Y., **Nahum, O. E.**, Gastaldi, M., & Rossi, R. (2019). *Optimal Evacuation Planning Under a Partial Traffic Management Regime*.

Scientific Committees:

1. 23rd EURO Working Group on Transportation (EWGT 2020) Scientific Committee.

Projects:

1. Japan-Israel Cooperative Scientific Research, Joint Research Activities in 'ICT for a Resilient Society', Tourists' Flow Patterns Identification and Information Provision for Safe Evacuation. (Sep. 2018 – Aug. 2021)
2. Integrating the evacuation of locals, foreigners, and non-Hebrew speakers in case of severe earthquake in Israel. Research proposal in response to a call for research in the fields of earthquake preparedness for 2022. Ministry of Innovation, Science and Technology. National Steering Committee for Earthquake Preparedness. (Submitted)

Students:

1. Assaf Kalish, M.A. thesis - *A Combined Freight and Passenger Planes Cargo Allocation Model* (Bar-Ilan University, Department of Management, 2017).
2. Omri Mayost, M.A. thesis - *Developing a Simulation Model for Emergency Evacuation, Considering Navigation Errors* (Bar-Ilan University, Department of Management, 2022).

Patents:

1. System and Method for Optimizing Deliveries Allocation for a Fleet of Vehicles.