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## EDUCATION

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**Technion – Israel Institute of Technology, Haifa, Israel ■ 2011**

**Ph.D.** in Transportation Engineering

Dissertation: “Development of a Flexible Model Structure for Discrete Choice Models”

Advisors: Prof. Yoram Shiftan & Prof. Shlomo Bekhor

**Technion – Israel Institute of Technology, Haifa, Israel ■ 2001**

**M.Sc.** in Transportation Engineering

Master Theses: “Shopping Malls Trips: Characteristics of Mode and Destination Choice Behavior”

Advisors: Prof. Josef Prashker & Prof. Yoram Shiftan

**Technion – Israel Institute of Technology, Haifa, Israel ■ 1997**

**B.Sc.** in Civil Engineering

Major: Transportation

**Technion – Israel Institute of Technology, Haifa, Israel ■ 1996**

**B.Sc.** in Geodetic Engineering



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## EXPERIENCE

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### **Robert Ishaq - Transportation Planning Ltd. ■ 2011 – Present**

#### *Main National Projects:*

- “Public Transportation Development for Israel – Strategic plan” –Consumer: Ministry of Finance and of Transport. [http://media.mot.gov.il/PDF/HE\\_TRAFFIC\\_PUBLIC/pituah-tahaz.pdf](http://media.mot.gov.il/PDF/HE_TRAFFIC_PUBLIC/pituah-tahaz.pdf).
- “Matronit – Haifa BRT” – Public transport planner: 3 BRT lines and 55 feeder lines including network concept, rout planning, frequencies, fleet size, depot program. Costumer: Ministry of Transport and Yefe-Nof , Semi-government company. <http://www.youtube.com/watch?v=LiqzdWbLgG4>.
- “Tel-Aviv Activity Based Model” – The new demand model for Tel-Aviv metropolitan area. Advisor for public transport issues and model structure issues. Costumer: Netive-Ayalon, Semi-government company.
- “City of Almaty Sustainable Transport(CAST) Project” : Development of Transport Demand Model (TDM) and Sustainable Urban Transport Strategy and Action Plan (SUTS) for the City of Almaty (Kazakhstan) - Design and calibration of the TDM. Costumer: ROM Handasa for the United Nations Development Programme (UNDP).
- “Parking Policy for the city of TelAviv Yafo”. Costumer: Tel Aviv Yafo Transportation Authority.
- “2025 Network” – transit operational plans: route planning, frequency, transportation terminal program, vehicle fleet size. Tel Aviv, Haifa, Be’er Sheva metropolitan areas. Consumer: Ministry of Transport and Netive Ayalon Company
- “URBAN95: Planning cities that support the development of a healthy child”. Guidelines: lead author of street environment and mobility chapters. Led by the Gabrieli-Segal office. Costumer: The Van Leer Foundation and the Ministry of Education
- Traffic forecast for interurban roads. Costumer: Netivei Israel - The National Transport Infrastructure Company Ltd.

### **Technion – Israel Institute of Technology, Haifa, Israel ■ 2011 – Present**

*Adjunct Professor:* **Teaching Excellence Award 2015** *Average grade 4.4/5*

- Introduction to Transportation Engineering
- Introduction to Transportation Engineering (*in English for the International School*)
- Public Transit Planning and Operation
- Transportation Planning Lab
- Transportation Demand Models (*Graduate School*)
- Final Project – Transportation Planning



**Technion – Israel Institute of Technology, Haifa, Israel ■ 2008 - 2011**

*Teacher Assistant:*

- Introduction to Transportation Planning
- Introduction to Traffic Planning
- Transportation Planning Lab
- Traffic Planning Lab
- Transportation Infrastructures

**PGL, Tel-Aviv ■ 2001 – 2008**

*Transport Planner – Project Manager*

Major Tasks: Public transportation and private vehicle forecast models and traffic assignments.

Public transportation, pedestrian paths, and bicycle lane plans network plans.

Representative Projects:

- **Transportation Master Plans.** Preparation of transportation master plans for cities, including: Rehovot, Mevaseret-Tzion, Kfar-Yona and Yokneam, for the municipally and the Israel Ministry of Transportation.
  - Situation analysis, development of travel demand forecasting models (4-step model), scenarios examination, and transportation projects plan for mid and long term (roads, transit, parking policy, pedestrians paths, and bicycle routes).
- **Reorganization Project of Public Transport in Metropolitan Tel Aviv.** Project manager for local bus systems in Tel- Aviv, Rishon-Letzion, Holon and Bat Yam. Prepared for Netivey Ayalon Highways / Israel Ministry of Transportation.
  - Situation analysis, alternatives planning, alternatives evaluation (according to evaluation measures), detailed plan (time table, stops list, vehicle type, etc.)



- **Traffic Design.** Transport engineer for the Begin Road, the main axis of Tel Aviv Central Business District. Prepared for Netivey Ayalon Highways / Israel Ministry of Transportation.
  - Comprehensive traffic design for cars, public transportation, pedestrian and bicycle lanes.

**Levenberg & Sons LTD, Haifa ■ 1996 – 1999**

*Geodetic, Registered Land Surveyor*

Major Tasks: Parceling programs, borders pointing and land surveying programs

**Technion – Israel Institute of Technology, Haifa, Israel ■ 1995-1996**

*Teacher Assistant*

- Basic geodesy courses for civil engineers and architects
- Instructed Geodesy Lab



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## PUBLICATIONS & PAPERS

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- Y. Rofe and R. Ishaq, "Building Livable Major Urban Streets: Begin Road, Tel-Aviv", Journal of Urban Design and Planning (ICE), December 2009 Issue DP4, Pages 169–178
- R. Ishaq; S. Bekhor; Y. Shiftan, "Flexible Model Structure Search for Discrete Choice Models", Journal of Transport (ICE), Volume 165, Issue 1, September 2011 Pages 39 –47
- R. Ishaq; S. Bekhor; Y. Shiftan, (2013) "A flexible model structure approach for discrete choice models", Transportation, Volume 40, Issue 3, pp 609-624.
- Ben-Elia, E., Ishaq, R. and Shiftan, Y. (2013) "If only I had taken the other road: Regret, risk and reinforced learning in informed route choice". To be published in Transportation, February 2013, Volume 40, Issue 2, pp 269-293.
- R. Ishaq; S. Bekhor; Y. Shiftan, "A Latent Class Model with Fuzzy Segmentation and Weighted Variables", Transportmetrica A: Transport Science. DOI: 10.1080/23249935.2014.892543. Published online: 10 Apr 2014
- Glickman, I., Ishaq, R., Katoshevski-Cavari, R. and Shiftan, Y. "Integrating activity based travel demand models with land use and other long term life style decisions." Journal of Transport and Land Use, Vol. 8, No. 3, pp. 71-93, 2015
- Haboucha, Chana J, Ishaq Robert, Shiftan, Yoram, "User preferences regarding autonomous vehicles." Transportation Research Part C: Emerging Technologies, Volume: 78, pp 37-49, 2015
- Etzioni S, Erev I, Ishaq R, Elias W, Shiftan Y., "Self-monitoring of driving speed", Accident Analysis and Prevention, doi: 10.1016/j.aap.2017.05.024. 2017
- R.Ishaq; O.Cats, "Designing bus rapid transit systems: Lessons on service reliability and operations", Case Studies on Transport Policy, Available online 5 May 2020



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## PROCEEDINGS OF CONFERENCES

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- "Begin Boulevard in Tel Aviv - from Suburban Highway to an Urban Boulevard", Speaker at the Urban Transportation XII Convention, Prague, Czech Republic 2006.
- "Flexible Model Structure for Discrete Choice Models", Speaker at the Conference of the Israel Engineers Association for Construction and Infrastructure 2009.
- "Flexible Model Structure Search for Discrete Choice Models: Basic Concept and Illustrative Example", Poster at the Transportation Research Board (TRB) 89th Annual Meeting, 2010.
- "Development of a Flexible Model Structure for Discrete Choice Models", Doctoral Student Research in Transportation Modeling Workshop, the Transportation Research Board (TRB) 90th Annual Meeting, 2011.

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## SUPERVISED GRADUATE STUDENTS

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### M.Sc. Thesis

Shelly Ben-Tzvi: "New approach to self-enforcement of speed limits". May, 2014  
Advisors: Yoram Shiftan, Ido Erev, Robert Ishaq

Inbal Glickman: "Integrating Activity-Based Travel Demand Models with Land Use and Other Long Term Life-Style Decisions". May, 2014  
Advisors: Yoram Shiftan, Rachel Katoshevski, Robert Ishaq

Chana J. Haboucha: " User preferences regarding autonomous vehicles", May, 2016  
Advisors: Yoram Shiftan, Robert Ishaq

Mohamad Hindi: " A route choice model for public transportation riders", March, 2018  
Advisors: Tomer Toledo, Robert Ishaq



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## AWARDS & FELLOWSHIP

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- Technion Teaching Excellence Award 2015
- Sandor Szego award for excellence in teaching, 2011
- Bella and Yesrael Miller award for excellence in teaching, 2010
- Vivian Konigsberg award for excellence in teaching, 2010
- Sandor Szego award for excellence in teaching, 2009
- Sandor Szego award for excellence in teaching, 2008
- Forchheimer Foundation Fellowship 2008
- Joseph Meyerhof Fellowship 2009 – 2010

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## COMPUTER SKILLS

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- TransCAD (*Transportation GIS Software*) – *Advanced knowledge*
- Biogeme (*Bierlaire's Optimization Toolbox for GEV Model Estimation*) – *Advanced knowledge*
- MATLAB - Developing algorithms and applications, analyzing and accessing data
- Excel, Word, Power point – *Advanced knowledge*

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## LANGUAGES

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**Arabic** – native language; **Hebrew and English** – speak fluently and read/write with high proficiency.

