April 2026

AVISHAI (Avi) CEDER
Curriculum Vitae

PERSONAL

Place of Birth	**Haifa, Israel**
e-mail:	**ceder@technion.ac.il**
URL:	**https://ceder.net.technion.ac.il**

ACADEMIC DEGREES

B.Sc., Technion-Israel Institute of Technology, Haifa, Israel, Faculty of Industrial & Management Eng., **1967-1971.**

M.Sc., University of California, Berkeley, U.S., Faculty of Civil Eng. Major: Transportation Eng., **1971-1972.**

Ph.D., University of California, Berkeley, U.S., Faculty of Civil Eng. Major: Transportation Eng. Minors: Operations Research & Human Factors, **1972-1975.**

ACADEMIC APPOINTMENTS

Research Assistant in Transportation Eng., University of California, Berkeley, U.S., **1972-1973.**

Lecturer (Adjunct), Technion-Israel Institute of Technology, Faculty of Civil Eng., **1975-1979.**

Senior Research Fellow, Technion-Israel Inst. of Tech., Faculty of Civil Eng., **1979-1980**.

Senior Lecturer, Technion-Israel Institute of Tech., Faculty of Civil Eng., **1980-1989.**

Associate Professor, Technion-Israel Institute of Tech, Faculty of Civil Eng., **1990 - 2001.**

Professor, Technion-Israel Institute of Technology, Faculty of Civil Eng., **2001 – 2008.**

Professor Emeritus, Technion-Israel Institute of Technology, Civil Eng., **2008 – Present.**

Professor – Chair in Transportation, University of Auckland, New Zealand, Faculty of Eng, Department of Civil and Environmental Eng, **2007 – Oct-2016.**

Visiting Professor, Massachusetts Institute of Technology (MIT), U.S., Faculty of Civil Engineering, **1981-1982, 1985-1987.**

Visiting Professor, University of California, Berkeley U.S., Dept. of Civil and Environmental Engineering, **2001.**

Honorary Professor, Univ of Auckland, New Zealand, Faculty of Eng, **2016-2020**.

TEACHING EXPERIENCE

Faculty of Mechanical Engineering, Technion-Israel Institute of Technology,
Teaching Assistant in Technical Drawing and Planning (undergraduate), **1969-1971.**

Faculty of Civil Engineering, Technion-I.I.T., teaching the following courses, **1976-2008:**

1. Operations Planning of Public Transportation (Undergraduate - 014716)
2. Advance Operations Planning of Public Transportation (Graduate - 018704)
3. Quantitative Methods in Management & Eng. Systems (Graduate 019006)
4. Traffic Flow Characteristics & Models (Graduate 019722)
5. Seminar in Traffic Eng. & Public Transportation (Undergraduate - 014700)
6. Projects in Traffic Eng. & Public Transportation (Undergraduate - 014701)
7. Systems Analysis (Introduction to Operations Research) (Undergraduate - 014004)
8. Introduction to Traffic Engineering (Undergraduate - 014705)

Faculty of Civil Engineering, MIT, U.S., during **1981-82** and **1985-87,** teaching the following courses:

1. Mathematical Optimization Techniques (#1.143J/13.622J)
2. Traffic Flow: Theory and Applications (#1.209/1.215)
3. Public Transportation (#1.258/1.214)
4. Advanced Topics in Public Transportation (#1.964)
5. Microcomputer Application in Transportation (#1.27)
6. Transportation Systems Analysis (#100J/1.201J/1.20)

Faculty of Civil Engineering, MIT, U.S. August 1981 - August 2003, (yearly, on a continuous basis), the course:

Public Transportation Service and Operations Planning.

Department of Civil and Structural Engineering, The Hong Kong Polytechnic University, Hong Kong, November-December, 1999, teaching the courses:

1. Basic course on Public Transport Planning,
2. Advanced course on Public Transport Modeling.

Institute of Transport Studies, School of Business, Faculty of Economics and Business The University of Sydney, Australia, February 2000, teaching the course:

Public Transport Systems, TPTM 6280 .

Transport Systems Center University of South Australia, Adelaide, Australia, April 2000, teaching the course:

Intelligent Public Transport

Department of Civil Engineering, Hong Kong University of Science and Technology, Hong Kong, September-December 2000, teaching the courses:

1. Public Transportation, CIVL 300J
2. Basic course on Public Transportation
3. Advanced course on Public Transportation

Department Civil and Environmental Engineering, University of California, Berkeley U.S. January-June 2001, teaching the courses:

1. Public Transport Systems, CE 259
2. Transportation Facility Design, CE 153

Department of Civil and Environmental Engineering, University of Auckland, teaching the following courses**, 2008-present:**

1. Traffic Engineering 2 (Undergraduate – Civil 361)
2. Traffic Systems Design (Undergraduate – Civil 758)
3. Traffic Engineering and Planning (Undergraduate – Civil 660)
4. Public Transport – Planning and Operation (Graduate – Civil 772)
5. Transportation and Networks Analysis (Graduate – Civil 763).

SELECTED RESEARCH EXPERIENCE

Senior Research Engineer at the Transportation Research Institute and Road Safety Center, Technion Research & Development Foundation Ltd. Research in the Public Transportation, Road Safety, Operations Research & Human Factors Fields, **1975-2008.**
Principal Investigator in CTS (Center of Transport Studies) at MIT, **1981-82**, **1985-87**. Research on Public Transport, Operations Research, Road Safety.
Principle Researcher in ITS (Institute of Transport Studies) at the Graduate School of Business, Sydney University, August - October, **1994**, and January-April, **2000**. Research on Logistics and Public Transport.
Principle Researcher in the Hong Kong University of Science and Technology, September-December, **2000**. Research on the Future Development of Hong Kong Waterborne Transport.
Principle Researcher in the **PATH** program, Institute of Transportation Studies, University of California, Berkeley, January-June,**2001.** Research on Demand-Responsive and Bus Rapid Transit Systems.
Founder and Director of the Transportation Research Centre (TRC) of the University of Auckland, New Zealand. Research on public-transport connectivity and Elevated Small Group Automated Rapid Transit. **2007-2013**

PROFESSIONAL EXPERIENCE

1968-1971: Transportation Planning of Bus Routes and Schedules (while frequently serving as a bus driver to obtain valuable first-hand experience): EGGED Bus Co., Ltd., the Israel National Carrier.

1975-1985: A Senior Advisor to EGGED Bus Co. Ltd. Working on Transit Management Research and projects regarding various aspects in operations and service planning.

1982: Operations Research Analyst at the Transportation Systems Center (U.S. Dept. of Transportation), Cambridge, Mass. Work in Projects regarding scheduling methods and data collection and analysis in conjunction with the Automatic Vehicle Monitoring (AVM) system in Los Angeles.

1982-1986: Consultant to Multiplications (Multisystems), Inc., Cambridge, Mass. Work in projects regarding crew scheduling at New Jersey Transit Corp., and preparation of bus schedules in conjunction with Automatic Data Collection Systems (ADCS) in the U.S.

1986-1988: Consultant to ABT Associates, Inc., Cambridge, Mass. Work in developing new projects in the areas of Transit, Traffic Eng., Logistics and Airport & Aviation. Also involved in projects of the Dept. of Justice.

1987-1988: Consultant (incl. testimonies) to the General Attorney's Office, Mass., U.S. Work regarding the analysis of the evacuation time of the Seabrook Power Plant, New Hampshire.

1984-2000: Consultant to BEFAG Engineering AG, ZUG, Switzerland. Work in projects regarding development of software, called OPTIBUS, to transit companies about network and route design and vehicle and crew scheduling procedures. OPTIBUS was used in Tampere Finland, Baerum in Norway, Östergötland and Gävleborg regional traffic authorities and Gothenburg bus company of Sweden.

1988-1994: Chief Transportation Advisor to the Mayor of Haifa, Israel. Work in developing a new control system for Haifa's intersections, and solving various traffic, transit and parking problems.

1994-1996: Chief Scientist of the Ministry of Transport, Israel. Work in various ITS (Intelligent Transportation Systems) areas, Transit and Freight Intermodality, innovative ideas to reduce road accidents, various TDM (Transportation Demand Management) areas, parking solutions, rail transport, air transport, water-borne transport and strategic research.

1999-2000: Consultant to Trunsfund (New-Zealand Government). Work in the area of Public Transport new initiatives and Intelligent Transit Systems.

2000: Project Manager of new Ferry Systems in Hong Kong (Hong Kong Government). Work in developing a new Ferry Network and Operation in Hong Kong.

2001- 2006: Consultant in the PATH program under the Institute of Transportation Studies, University of California at Berkeley. Work in the area of developing a smart bus shuttle service for the Bay Area Transit System (BART Metro), BRT (Bus Rapid Transit) deployment, and Intermodal connectivity with airports.

2013-present: Member of the Advisory Board of OPTIBUS Company, Israel, performing optimal transit scheduling tasks using data collected online.

2013-2015: Guide, supervise and work at OTOTO Company, Israel, which deals with transit user App integrated with transit service improvement.

2016: Work on 30-Year Prospective of Future Urban Transportation for the Korean Transport Institute (KOTI).

2017-2019: Consultant to TUM-CREATE in Singapore re future public transportation.

2017-2021: Zhi-xing professor at the Beijing Jiaotong University (BJTU), Beijing, China.

2017-2021: Research and lecturing at the International Development and Cooperation (IDEC), Hiroshima University, Hiroshima, Japan.

2017-2022: Research (IPTOP project) and lecturing at the Technical University of Denmark (DTU), Division Transport, Copenhagen, Denmark.

2017-2021: Lecturing (32-hour course/year) and research at the Beijing Jiaotong University (BJTU), Beijing, China.

2020-present: Lecturing and implemented research at the Beijing Public Transport Corporation (BPTC); the largest bus company in the world with about 32,000 buses including 23,000 electrical buses.

2023-2024: SMRT Visiting Professor at the Nanyang Technological University (NTU) in Singapore; delivering public lecture at CEE – Distinguished Seminar Series and advising on various research projects.

ADMINISTRATIVE DUTIES AND APPOINTMENTS

1. **Chairperson**, Program and Organizing Committee of the 15th international Conference on Advanced Systems in Public Transport (CASPT); known as CASPT2022, Tel Aviv, Israel (**06-10 November 2022**).

2. **Guest Executive Editor** of *Frontiers of Engineering and Management* (Volume 4, Issue 4, 2017), Special Issue: Management of Road and Railway Traffic and Transportation Engineering.
3. **Director** of Transportation Research Centre, University of Auckland **(2007-2013)**
4. **Senior Editor,** Public Transport Planning and Operations Journal **(2009-present)**
5. **Advisory Editor,** International Journal of Transportation **(2012-present)**
6. **Member**, Committee on Public Transportation Planning and Development, AP025, Transportation Research Board, Washington, D.C. (**2010-present**);
7. **Head**, Transportation Eng and Geo-Information Department **(2006 - 2007)**
8. **Israel Representative** and member of COST Transport TC (European Community) Program Committee (**January 2005 - 2007)**;
9. **Associate Editor**, Transportmetrica A: Transport Science Journal (**2003-present**);
10. **Chairperson,** Civil Eng Faculty Library Committee, Technion (**2002-2007**);
11. **Head**, Transportation Eng Division, Civil Eng. Faculty, Technion (**2002**);
12. **Chairperson**, Program and Organizing Committee of the 14th International Symposium on Transportation and Traffic Theory, Jerusalem, Israel (**19-23 July 1999**);
13. **Israel Representative** at various concerted actions programs of the Commission of the European Community (**Sept. 1998 - present**);
14. **Deputy Dean** in charge of graduate students at the Faculty of Civil Engineering, Technion (**June 1997 - August 1999**);
15. **Chief Scientist**, Ministry of Transport, Israel (**March 1994-September 1996**);
16. **Israel Representative** at the Transport Research Program Committee of the Commission of the European Community (**August 1996 - April 1999);**
17. **Member**, Israel National Council for Research & Development. Government appointment (January **1995** - September **1996**);
18. **Member**, International Advisory Committee of the ISTTT - Int. Symposium on Transportation & Traffic Theory (**1993-present**);
19. **Member**, Int. Program Committee of CASPT - International Conference on Advanced Systems for Public Transport (**1990-present**);
20. Transportation Div. **Coordinator** (between the Division and Civil Eng. Faculty (**1989-91**);
21. **President of the IATR** - Israel Association of Transportation Research (**1987-89**);
22. **Member**, Committee on Bus Transit Systems, AP050 Transportation Research Board, Washington, D.C., (**1981-2009**);
23. **Member**, Editorial Panel of Transportation Research Journal (from **1982**);
24. **Member**, Committee on Transit Management and Performance, AP010, Transportation Research Board, Washington, D.C. (**1984-2009**);
25. **Chairman** of the Biniamini Student Award Committee, Technion (**1988**);
26. **Chairman** of the Sa-Sha Transportation Company's Research Award Committee (**1988-91**);
27. Dept. of Civil Engineering, Technion-Israel Institute of Technology;
    1. **Secretary** of the Civil Eng. Faculty Council (**1980-81**)
    2. In charge of all awards & research grants at the Civil Eng. Faculty., (**1992-93**)

ACTIVE PARTICIPATION IN INTERNATIONAL CONGRESSES

Note: There are many active participations in international congresses **with presentation of papers**, from January **1975** to date. Sections **b, c-1** (partially) below cover the subjects of the papers.

SELECTED INVITED LECTURES ABROAD (from 1999)

1. "Traffic Behavior in Work Zones and Optimal Portable Traffic Light System", Presented at the Traffic Eng Conference, University of Tokyo, Tokyo, Japan, September **1999.**
2. "Driver Car-Following and Phase Plane Behaviors", Presented at the Civil Eng Conference, Nihon University, Tokyo, Japan, October **1999.**
3. "Public Transport Coordination and Synchronization", Presented at the Tottori University Social Systems Eng Conference, Tottori, Japan, November **1999**.
4. "Transit Scheduling: Alternatives and Optimal Selection Vision", Presented at the Pre-Conference Workshop of the 4th Conference of Hong Kong Society for Transportation Studies, Hong Kong, December **1999.**
5. "Theoretical and Practical Transit Automated Timetables", Presented at the Transportation Planning Conference, Sydney University, Sydney, Australia, March **2000**.
6. "Public Transport Optimal Network Design Algorithm", Presented at the Public Transport Conference, University of South Australia, Adelaide, Australia, April **2000.**
7. "Optimal Design of Public Transport Routes" Presented at the 5th Conference of Hong Kong Society for Transportation Studies, Hong Kong, December **2000.** (**Plenary session**)
8. "Even Headway and Even Load Transit Timetables", Presented at the ITS Transportation Conference, Berkeley, California, USA, March **2001**.
9. "Deficit Function Graphical Transit Scheduling Algorithm", Presented at the Public Transport Operations Planning Conference, University of Rome, Rome, Italy, September, **2002**. (**Plenary session**)
10. "Intelligent Shuttle and Feeder Bus Service". Transportation in the Information Age. Presented at the 7th Hong Kong Society for Transportation Studies. Hong Kong, December, **2002.** (**Plenary session**)
11. "Designing and Optimizing Transit Short-Turn Trips", Presented at the Planning Public Transport Services – at the Route Level Conference, Monash University, Melbourne, Australia, October **2003**. **(Keynote Speaker).**
12. "New Public Transit Operations Planning Concepts", 7th International Congress on Advances in Civil Engineering, ACE 2006, Yildiz Technical University, Istanbul, 11-13 October **2006. (Keynote Speaker).**
13. The 19th International Conference on Multiple Criteria Decision Making, MCDM-2008, for Sustainable Energy and Transportation Systems, The University of Auckland, Auckland, New Zealand, January 7-12, **2008** (**Chairperson**, **Session 3**).
14. "Design and Evaluation of Passenger Ferry Routes: General Approach and Hong Kong Case Study". The round table on "high speed sea connections for sustainable transport", Saragossa (during the Expo 2008) 15-16 July, **2008 (Keynote Speaker).**
15. "A Framework for Deployment Planning of Bus Rapid Transit (BRT) Systems". System integration strategies for BRT and the remaining elements of urban public transport, 28 August, **2008**, Santiago, Chile. (**Keynote Speaker**).
16. "Public-Transport Connectivity Measures and Performance within the Operations Planning Process" at the 11th International Conference on Advanced Systems for Public Transport (CASPT), Hong Kong, July 20 - 22, **2009** (**Keynote Speaker**).
17. "Public-Transit Connectivity and Coordination", at the International Conference on Connection & Transfer Systems at Railways Stations, Seoul National University of Technology, at the Seoul Education & Cultural Center, Seoul, Korea, 17 December **2009**. **(Keynote Speaker).**

18. "Public-Transport Planning and Operations: Theory, Practice and Future Development". The 19th "7+1" Forum of Traffic and Transportation of China. Beijing, China, 26 June, **2010**. (**Keynote Speaker**).
19. "Emerging issues and methods in policy-oriented travel demand analysis". The International workshop of Transportation Demand Analysis, Technion-Israel Institute of Technology, 6 June, **2011** (**Chairperson, Session 2**).
20. "Scheduled Transportation". The 19th International Symposium on Transportation and Traffic Theory (ISTTT), 17-20 July, **2011** (**Chairperson, Session II**).
21. "Optimal Multi-Vehicle Type Transit Timetabling and Vehicle Scheduling". The 14th Euro Working Group on Transportation (EWGT), and the 26th Mini EURO Conference (MEC), Poznan, Poland, 6-9 September **2011**. **(Keynote Speaker).**
22. "Measuring, Detecting and Improving Weak Segments of Public-Transport Connectivity using Minimum-Cost Approach". The XVIII International SIDT conference on *economic, financial, energy, environment and technological sustainability of transport systems*, Venice, Italy, 6-7 October **2011** (**Keynote Speaker**).
23. "Network Connectivity for the Logistics of Public-Transport Operations Planning". The 15th Total Logistic Management Conference on *Advances in Supply Networks and Transportation*, Zakopane, Poland, 8-10 December, **2011** (**Keynote Speaker**).
24. "Practical Modeling of Public-Transport Operations Planning". The 1st series of Lectures of "111 China's National Project" by the Ministry of Education and the State Administration of Foreign Experts Affairs in China, Beijing, 18-21 June, **2012** (**Keynote Speaker**).
25. "Land Facilities to Optimize Network Connectivity, Integration and Logistics of Rail-Bus-Ferry Operations Planning". Joint Symposium of Korea Railroad, Korea Cadastral Survey Corporation, Korea Water Resources Corporation, and Korea Land and Housing Corporation, 21 March, **2013**, Seoul, Korea (**Keynote Speaker**).
26. "Scheduling and Network Design of Public-Transport Operations Planning". The 2st series of Lectures of "111 China's National Project" by the Ministry of Education and the State Administration of Foreign Experts Affairs in China, Beijing, 15-17 April, **2013** (**Keynote Speaker**).
27. "Scheduled Service Management". The 20th International Symposium on Transportation and Traffic Theory (ISTTT), Noordwijk, The Netherlands, 17-19 July**, 2013** (**Keynote Speaker,** in the form of tutorial).
28. "Public Transport". The 20th International Symposium on Transportation and Traffic Theory (ISTTT), Noordwijk, The Netherlands, 17-19 July**, 2013** (**Chairperson of session**).
29. "Advanced Transit-Service Planning". Special Transportation Research Institute Conference, NanKai University, Tianjin, China, 1-2 July, **2014** (**Keynote Speaker**).
30. "Timetabling and Scheduling of Public-Transport Operations Planning". The 3srd series of Lectures of "111 China's National Project" by the Ministry of Education and the State Administration of Foreign Experts Affairs in China, Beijing, 28-30 July, **2014** (**Keynote Speaker**).
31. "Rail-Bus-Ferry Operations Planning: Network Connectivity, Integration and Logistics". The 9th International Conference on Traffic & Transportation Studies (ICTTS'2014). August 1–2, **2014**, Shaoxing, Zhejiang Province, P. R. China, (**Keynote Speaker**).
32. "Network Connectivity and Integration of Rail-Bus-Ferry Operations Planning". Invited special seminar at the Department of Control Science and Engineering, Huazhong University of Science and Technology, 23rd September **2014**, Wuhan, China.
33. "Network Control of Public-Transport Operations Planning". Invited special seminar at the Institute of Transportation Engineering, Zhejiang University, 26th September **2014**, Hangzhou, China.

34. "Synchronized Transfers in Public-Transport Operation Using ITS-based Online Tactics". Presented at the Conference of TransITS –COST Action TU1004. 10-12 May, **2015**, Paris, France (**Keynote Speaker**).
35. "Network Connectivity of Rail-Bus-Ferry Operations Planning". Special Seminar at the School of Transportation, Southeast University, 27th May, **2015,** Nanjing, China.
36. "Network Integration of Rail-Bus-Ferry Operations Planning". Special Seminar at the School of Transportation and Logistics, Dalian University of Technology. 29th May, **2015,** Dalian, China.
37. "ITS-based Online Tactics for Synchronizing Public-Transport Transfers". Presented at the 15th COTA International Conference of Transportation Professionals (CICTP-2015), 25-27 July **2015,** Beijing, China **(Keynote Speaker).**
38. "Transit Connectivity and Real-Time Control". The 6th International conference of Public Transport Forum (IPTF), 23-24 February **2016**, Seoul, Korea **(Keynote Speaker).**
39. "Public Transport Network Connectivity: Measuring, Detecting Weak Segments and Creating Connected Priority Lanes". The 16th COTA (Chinese Overseas Transportation Association) CICTP (COTA International Conference of Transportation Professionals), 6-9 July **2016**, Shanghai **(Keynote Speaker).**
40. "Future Urban Transportation: 30-Year Prospective Ultimately Public (not Private) Transport Related". KOTI 30th Anniversary International Seminar, 24 August **2016**, Sejong, Korea **(Keynote Speaker).**
41. "Public Transport Network Connectivity: Challenges and Prospects for 2050". The 5th Symposium of the hEART (European Association for Research in Transportation), 14-16 September **2016**, Delft, The Netherlands **(Keynote Speaker).**
42. "Public Transport Network Connectivity: Challenges and Prospects for the Future", Transport Summit DTU (Technical University of Denmark), 31 May **2017**, Copenhagen, Denmark (**Keynote Speaker**).
43. "Prospects for Smart Future Mobility", 1st VOM International Conference, 27th June, **2017**, Hiroshima University, IDEC, Hiroshima, Japan (**Keynote Speaker**).
44. "Future Mobility and Public Transportation". The 17th COTA (Chinese Overseas Transportation Association) CICTP (COTA International Conference of Transportation Professionals), 7-9 July **2017**, Shanghai, Tongji University **(Plenary-session Speaker).**
45. "Challenges and Prospects for Future Public Transport". The 5th China-Korea Joint Seminar on Sustainable Transportation System. 14th September **2018**, KAIST, Daejeon, Korea (**Keynote Speaker**).
46. "Future of Public Transport", TUMCREATE Symposium 2018, 30th November **2018**, National University of Singapore (NUS), Singapore (**Keynote Speaker**).
47. "Future Public Transport Mobility: Automation and Personalization", 2nd VOM International Conference, 27th February, **2019**, Hiroshima University, IDEC, Hiroshima, Japan (**Keynote Speaker**).
48. "Future Coordinated Public Transport Planning: Automation and Personalization". The 5th World Metropolitan Transport Development Forum, hosted by the Beijing Municipal Commission of Transport, organized by the Beijing Transport Institute (BTI), China National Convention Center, October 27, **2019** (**Plenary Session**).
49. "Sustainable Urban Mobility with Public Transit Policy Trends based on Global Data Analysis". The 2021 China (Beijing) International Public Transport Conference, on 'Digitalization and Intelligence Transforms the Mobility Landscape', 12-13 November, **2021**, Beijing, China (**Keynote Speaker**).
50. "Sustainable urban mobility with public transport policy trends". CEE Distinguished Seminar Series, Nanyang Technological University (NTU), 22nd November, Singapore, 2023 (**Keynote Speaker**).

51. "CASPT History and Future Urban Public Transport Service". The 16th CASPT, 30th June-4th July, **2025**, Kyoto, Japan (**Keynote Speaker**).
52. "Challenges with Artificial Intelligence and Policy Trends for Future Urban Public Transport Service". The International Transport Research Seminar at Hiroshima University, 9th July, **2025**, Hiroshima, Japan (**Keynote Speaker**).

PROFESSIONAL SOCIETY MEMBERSHIP

1. Israel Association of Engineers and Architects;
2. Operations Research Soc. of Israel (ORSIS);
3. Transportation Research Board (TRB)
4. Israel Association of Transportation Research (IATR)

PRIZES and HONORS

1971-75 Msc and PhD Fellowship in the University of California at Berkeley.
2003 Excellence in teaching award, Technion, Faculty level
2004 Excellence in teaching, Technion Award, University level
2005 Sa-Sha Transport Association award for supervision of best Msc Thesis
2008 University of Hong Kong award of best record in continuous teaching of short courses (4-day 9:00-18:00 as a sole lecturer).
2011 Receiving Honorary-Emeritus Member for academic, operative and management merits in the transportation field, the la Italian Society of Transportation Scholars (SIDT), 7 October, 2011.
2011 Excellence in teaching, Faculty of Engineering Award, University of Auckland.
2016 Honorary Professor, Faculty of Engineering, University of Auckland.
2018 His PhD student, Tao Liu, won the 2017 Vice-Chancellor's Prize for Best Doctoral Thesis of the University of Auckland, out of 432 PhD theses in 2017.
2018 In recognition of fundamental contributions to the public transport community (CASPT, 23-25 July, Brisbane, Australia).
2022 1st Best-paper Award (together with Kelvin Lee, Yu Jiang, Justin Dauwels, Rong Su, and Otto Anker Nielsen) at the 15th international Conference on Advanced Systems in Public Transport (CASPT); known as CASPT2022, Tel Aviv, Israel (06-10 November 2022).
2024 Lifetime Contribution Award by the Transportation Research Board (TRB), USA

AVISHAI (Avi) CEDER

LIST OF PUBLICATIONS

a. THESIS and BOOKS

a-1. Theses

Ceder, A. "From Car-Following to Speed-Volume-Density Relationship." Individual Research for **M.Sc.** degree, Univ. of California, Berkeley, November **1972**, 90 p.

Ceder, A. "Investigations of Two-Regime Traffic Flow Models at the Micro - and Macroscopic Levels." **Ph.D**. Dissertation, Univ. of California, Berkeley, November **1975.** 392 p. (The Abstract of this Thesis appears in the Bibliography section, Transportation Research Journal, Vol. 10, 218 p., **1976**).

a-2. BOOKS

1. Ceder, A. "Network Theory and Selected Topics in Dynamic Programming." (Hebrew). 188 p. Dekel Academic Press, April **1978**.
2. Ceder, A. "Systems Analysis". (Combined Lecture Notes) Civil Engrg. Dept., Technion (Hebrew). 117 p. October **1988.**
3. Ceder, A. "A Smiling Life (usually) (Via Aphorism and Story, Rhyming and Illustration)" (Hebrew), 127 p. Kinneret Publishing House, **1996**.
4. Ceder, A. "Systems Analysis as an Introduction to Operations Research". Michlol Pub. Technion (Hebrew), 269 p. January **1999**.
5. Ceder, A. (Editor) "Transportation and Traffic Theory". Proceedings of the 14th International Symposium on Transportation and Traffic Theory, 796 p. Elsevier Science Ltd. Pub., **1999**.
6. Ceder, A. (Editor) "Transportation and Traffic Theory". Proceedings of the Abbreviated Presentation Sessions of the 14th International Symposium on Transportation and Traffic Theory, 439 p. Transportation Research Institute, Pub Technion, ISBN No.965-222-993-8, **1999**.
7. Ceder, A. "Public Transport: Operations and Service Planning" (Lectures Notes), The Hong Kong University of Science and Technology, 590 p. September **2000**.
8. Ceder, A. "Public Transit Planning and Operation: Theory, Modeling and Practice", Elsevier, Butterworth-Heinemann, Oxford, UK, 640 p. **2007**. This book was translated to Chinese by the Tsinghua publishing house, Beijing, China, **2010**.
9. Ceder, A. "Public Transit Planning and Operation: Modeling, Practice and Behavior", Second Edition, CRC Press, Taylor&Francis Group, Boca Raton, USA, 716 p. **2016**.
10. Hadas, Y., Ceder, A. and Cats, O. [Guest SI Editors]. Advanced systems and data analysis in public transport. *Public Transportation* 16(3), **2024**. https://doi.org/10.1007/s12469-024-00376-5

a-3. CHAPTER IN BOOK

1. Ceder, A. "Public Transportation in Transportation Systems." (Hebrew). Transportation Research Institute, D. Zaidel & A. Katz (Eds.), **1982.**

2. Ceder, A. & Wilson, N. "Public Transport Operations Planning." Chapter 9 in "Design and Operation of Civil and Environmental Engineering Systems" Revelle, C. & McGarity, A.E. (Eds.). pp. 395-434, John Wiley & Sons Pub., **1997**.

3. Ceder, A. "Public Transport Scheduling". In "handbooks in Transport-Handbook 3: Transport Systems and Traffic Control". Hensher, D and Button,K.(Eds). Pergamon Imprint, Elsevier Science Ltd Pub. pp. 539-558, **2001**.

4. Ceder, A. "Public Transport Timetabling and Vehicle Scheduling". Chapter 2 in "Advanced Modeling for Transit Operations and Service Planning", William Lam, Michael Bell (Eds). Pergamon Imprint, Elsevier Science Ltd Pub. .pp 31-57, **2003**.

5. Ceder, A. "Designing Public Transport Network and Routes". Chapter 3 in "Advanced Modeling for Transit Operations and Service Planning", William Lam, Michael Bell (Eds). Pergamon Imprint, Elsevier Science Ltd Pub. pp 59-91, **2003**.

6. Ceder, A. "New Applications of ITS to Real-Time Transit Operations", Chapter 2 in "Modelling Intelligent Multi-Modal Transit Systems", Agostino Nuzzolo, William Lam, (Eds). CRC Press, Taylor&Francis Group, Boca Raton, USA, pp 19-79, **2017**.

7. Liu, T. and Ceder, A. "Research in Public Transport Vehicle Scheduling" (Chapter 18). In: Currie, G. (Ed.), *Handbook of Public Transport Research*, Edward Elgar Publishing, 388-408, **2021**.

8. Ul Abedin, Z., Ceder, A. "Methods for Designing Public Transport Networks". *International Encyclopedia of Transportation*, Vol. 5 (Transport Modes), 625-637, **2021.** https://doi.org/10.1016/B978-0-08-102671-7.10494-4

b. REFEREED PAPERS IN JOURNALS AND BOOKS

Note: <u>Supervised students are underlined</u>

1. Ceder, A. & May, A.D. "Further Evaluation of Single-and-Two Regime Traffic Flow Models." Journal of the Transportation Research Board, Transportation Research Record, 567, pp. 1-15, **1976.**

2. Ceder, A. "A Deterministic Traffic Flow Model for the Two-Regime Approach." Transportation Research Record, 567, pp. 16-30, **1976.**

3. Ceder, A. "Drivers' Eye Movements as Related to Attention in Simulated Traffic Flow Conditions." Human Factors Journal, Vol. 199, pp. 571-581, **1977**.

4. Ceder, A. & May, A.D. "Consistency of Maximum Flow Characteristics and Congestion Patterns Under Morning Peak Period Conditions on an Urban Freeway."

Journal of the Transportation Research Board, Transportation Research Record, 644, pp. 8-14, **1977.**

5. Ceder, A. "A Time Sequence Analysis for a Two-Regime Traffic Flow Model." Systems Science Research, (7th ISTTT) Kyoto, Japan, pp. 141-174, **1977.**

6. Ceder, A. & Livneh, M. "Further Evaluation of the Relationship Between Road Accidents and Average Daily Traffic." Accident Analysis & Prevention Journal, Vol. 10, pp. 95-109, **1978**.

7. Ceder, A. "Drivers' Behaviour, Traffic Flow and Road Safety Studies." Hazard Prevention Journal, Vol. 15(1), pp. 24-26, September/October **1978.**

8. Ceder, A. "A Two-Regime Traffic Flow Model and the Consistency of Its Parameters." Applied Mathematical Modelling Journal, Vol. 2, pp. 261-270, December **1978.**

9. Ceder, A. "The Accuracy of Traffic Flow Models – A Review and Preliminary Investigation." Traffic Engineering & Control Journal, Vol. 19, pp. 541-544, December **1978**

10. Livneh, M. and Ceder, A. "A Safety Evaluation Approach for Road Improvement Projects." ITE Journal, Vol. 48(12), pp. 26-30, **1978.**

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