

CURRICULUM VITAE
Marianne Hatzopoulou (previously spelled Kazopoulo)

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RANK AND STATUS

Assistant Professor, Department of Civil Engineering and Applied Mechanics, McGill University

UNIVERSITY EDUCATION

PhD Urban Transportation Planning 2008
Department of Civil Engineering, University of Toronto, Canada
Thesis: *“An integrated multi-model approach for predicting the impact of household travel on urban air quality and simulating population exposure”*
Supervisor: Prof. Eric J. Miller

MSc Environmental Technology 2002
Department of Civil Engineering, American University of Beirut, Lebanon
Thesis: *“Air quality management in urban areas: Policy options for the Greater Beirut Area”*
Supervisor: Prof. Mutasem El-Fadel

BSc Physics 1999
Department of Physics, American University of Beirut, Lebanon
Undergraduate Seminar: *“Characterization of a surface wave discharge for the deposition of nitride thin films”*
Supervisor: Prof. Malek Tabbal

ACADEMIC EXPERIENCE

Date	Position	Institution
Sept. 2010-present	Assistant Professor	Civil Engineering, <u>McGill University</u>
2009 - 2010	Postdoctoral Associate	MIT-Portugal Project, Transport Systems, <u>Massachusetts Institute of Technology</u>
2008 - 2009	Postdoctoral Associate	Civil Engineering, <u>University of Toronto</u>
2009	Lecturer	Civil Engineering, <u>University of Toronto</u>
2004 - 2008	Research Assistant	Civil Engineering, <u>University of Toronto</u>
2000 - 2003	Research Assistant	Civil and Environmental Engineering, <u>American University of Beirut</u>
1998 - 2000	Research Assistant	Department of Physics, <u>American University of Beirut</u>

RESEARCH GRANTS AND CONTRACTS

Agency	Title of project	Funding	Year
McGill Social Sciences and Human Resources Council Internal grant	Social change, transportation equity, and environmental justice: A case study of the city of Montréal	4,000 (as PI 100% share)	2011
Quebec Ministry of Transportation	Traffic and Air Quality: Highway 25	160,000 (as a co-PI 33% share)	2010
McGill Sustainability Projects Fund Office of Sustainability	McGill Transportation Survey	24,000 (as a co-PI 33% share)	2010
Council of Plateau-Mont-Royal, Montreal	Sustainable streets: An evaluation of street design alternatives on traffic and vehicle emissions	N/A	2010

Major Collaborative Research Projects:

- **Strategic Options for Transportation and Urban Revitalization (SOTUR)** through the MIT-Portugal Program, an international collaboration involving government, academia, and industry in Portugal and aiming at developing education and research related to engineering systems. I currently collaborate with a large network of researchers both at MIT and in Portugal (Instituto Superior Técnico - Universidade Técnica de Lisboa, and University of Coimbra) through the establishment of transportation research building on expertise at MIT and in Portugal and applied to Portuguese cities.
- **Singapore-MIT Alliance for Research and Technology (SMART):** my research involvement (under the “Future Urban Mobility Interdisciplinary Research Group”) relates to the development of performance assessment methods for the evaluation of alternative sustainable mobility systems. Current research aims at assessing the transferability of methods implemented as part of the MIT-Portugal program to rapidly urbanizing Asian cities with varying levels of data availability, resources, and urban sustainability challenges.

SUPERVISION AND TEACHING

Student	Thesis Title	Degree	Year granted	Supervisory role
Ahsan Alam	Microscopic modelling of vehicle emissions and air quality	PhD	ongoing	Sole supervisor, McGill
Mai Khattab	Modelling the Dispersion of Road Emissions in Lisbon	BEng	2010	Sole supervisor, MIT/AUB
Jiang Hao	Activity-Based Modelling and Vehicle Emissions	MSc	2009	Co-supervisor, University of Toronto
Judith Lau	An Integrated Evaluation of Transit Bus Emissions in Toronto	BEng	2009	Co- supervisor, University of Toronto

Course	Involvement	Dept./Univ.	Year
CIVE 432: Technical Paper	Technical Paper Committee	Civil Engineering, McGill	2011
CIVE 545: Urban Air Pollution and Energy Challenge	Instructor and designer	Civil Engineering, McGill	2011
11.953: Comparative Land-use and Transportation Planning	Guest lecturer: integrated land-use and transport models	Urban studies and Planning, MIT	2010 2011
CIV 425: Engineering Design (Transportation branch)	Instructor and designer	Civil Engineering, University of Toronto	2009
CIV 531: Transport III (Urban Transportation Planning)	Guest lecturer: vehicle emissions modelling module	Civil Engineering, University of Toronto	2006 2007 2008
APS111: Engineering Strategies and Practice (ESP)	Seminar Leader “Intelligent Transportation Systems” “The Gardiner Expressway”	Faculty of Engineering, University of Toronto	2005 2006
APS112: Engineering Strategies and Practice (ESP)	Project Manager	Faculty of Engineering, University of Toronto	2006 2007 2008 2009
APS111: Engineering Strategies and Practice (ESP)	Teaching Assistant	Faculty of Engineering, University of Toronto	2005 2006
APS112: Engineering Strategies and Practice (ESP)	Teaching Assistant	Faculty of Engineering, University of Toronto	2006 2007

Member of PhD preliminary oral examinations

Siavash Isazadeh (2010), Civil Engineering, McGill University

Seyed Amir Hossein Zahabi (2011), Civil Engineering, McGill University

SERVICES TO THE UNIVERSITY

- Pro-Dean, PhD thesis defence: Jennifer Lynn Cuffe, Department of Anthropology, Feb 10, 2011, McGill University

PROFESSIONAL EXPERIENCE

Date	Position	Institution/Company
Sep. 2008 - Present	Individual Consultant	Consulted on various projects for government agencies in Canada
Jan. 2001- Aug. 2004	Environmental Consultant	Water and Environment Sustainable Solutions Inc. (WESS), Beirut, Lebanon

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

World Conference on Transport Research Society (WCTRS) and Special Interest Group on Transportation and the Environment (SIG-11) (2004 - present)
International Association for Travel Behaviour Research (IATBR) (2009 - present)
Canadian Regional Science Association (2007 - present)
Institute of Transportation Engineers (2011)

CONSULTING ACTIVITIES

2009: *Infrastructure and the economy: Future directions for Ontario.* Submitted to the Martin Prosperity Institute at the University of Toronto. Conducted through the Department of Civil Engineering, University of Toronto (with 3 other collaborators: C. Kennedy, B. Karney, and E. Miller). This report was part of a larger study lead by Prof. Richard Florida and conducted for the Province of Ontario: “*Ontario in the Creative Age*”.

2009: *Development of an operational integrated urban model system: Modelling of transport emissions in the Greater Toronto and Hamilton Area.* Submitted to the City of Toronto in April 2009. Conducted through the Urban Transportation Research and Advancement Centre, University of Toronto (with 3 other collaborators: E. Miller, J. Hao, and J. Vaughan).

2008: *Organizational structures for travel demand modelling.* Submitted to Metrolinx in 2008. Conducted through the Urban Transportation Research and Advancement Centre, University of Toronto (with one other collaborator: E. Miller).

2001-2004: Through Water and Environment Sustainable Solutions Inc (WESS), lead on:

- Environmental Impact Assessment of the El-Hermel Solid Waste and Wastewater Management Facility, Hermel, Lebanon: sponsored by the United States Agency for International Development (USAID), prepared for the Municipality of Hermel, 2004.
- Environmental Impact Assessment Process/Environmental Management Plans, Athens, Greece: submitted to Consolidated Contractors Company (CCC), 2003.

- Master Presentation on Environmental Management Plans, sponsored by Centre International des Technologies de l'Environnement de Tunis (CITET), Mediterranean Environmental Technical Assistance Program (METAP), and World Bank, 2003.
- Environmental Impact Assessment of the Seafront Development Project: Al Athaiba to Al Mawaleh, Muscat, Oman: prepared for the Municipality of Muscat, Oman, 2002.
- Environmental Impact Assessment of the Cultural Heritage and Urban Development Project, Beirut, Lebanon: sponsored by the World Bank, prepared for the Lebanese Council for Development and Reconstruction, 2002.
- Stable Communities Programs: Lessons Learned. Social assessment of selected Cooperative Housing Foundation (CHF)-funded projects throughout Lebanon, sponsored by United States Agency for International Development (USAID), 2002.
- Environmental Compliance and Phasing Program for the Paper Industry (Paper and Cardboard), prepared for the Ministry of Environment, Beirut, Lebanon, 2001-2002.
- Environmental Compliance and Phasing Program for the Food Industry (Olive Pressing), prepared for the Ministry of Environment, Beirut, Lebanon, 2001-2002.
- Training Workshop on World Bank Environmental and Social Safeguard Policies for World Bank Funded Projects in the Republic of Iraq, attended by EIA focal points in the Republic of Iraq. Amman, Jordan, March 27-April 1, 2004.
- Workshop on Environmental Management Plans for Cultural Heritage Projects Financed by the World Bank, attended by EIA focal points in Mediterranean Environmental Technical Assistance Program (METAP) countries. Beirut, Lebanon, July 21-24, 2003.
- Training Workshop on Environmental Management Plans in the EIA Process, attended by directors / staff of World Bank funded projects in Egypt. Cairo, Egypt, February 24-27, 2003.
- Training Workshop on Environmental Management Plans in the EIA Process, attended by directors / staff of World Bank funded projects in Morocco. Rabat, Morocco, October 28-31, 2002.
- Training Workshop on Environmental Planning and Safeguards in the Republic of Yemen, attended by directors / staff of World Bank funded projects in Yemen. Sana'a, Yemen, July 7-10, 2002

INVITED TALKS

January 31, 2010: Invited by Promoting Opportunities for Women in Engineering (POWE), McGill to speak on "*Transportation and the Environment: Research Directions*".

March 25, 2010: Panelist at a workshop organized in Ottawa by the Transportation Association of Canada (TAC) on "*Quantifying and Forecasting Greenhouse Gas Emissions from Urban Passenger Transportation*".

February 19, 2009: Invited by the Quebec Ministry of Transportation to speak on bridging modelling and decision-making at a travel demand modelling colloquium held in Montreal: "*La Modélisation des Déplacements Urbains: Pratiques et Enjeux*".

PUBLICATIONS

REFEREED JOURNAL PUBLICATIONS (* = published with supervised student)

* Lau, J., **M. Hatzopoulou**, M. Wahba, E.J. Miller. 2011. An integrated multi-model evaluation of transit bus emissions in Toronto. Forthcoming in *Transportation Research Record*.

* Hao, J.Y., **M. Hatzopoulou**, and E.J. Miller. 2010. Integrating an activity-based travel demand model with dynamic traffic assignment and emission models: An implementation in the Greater Toronto Area. *Transportation Research Record: Journal of the Transportation Research Board*, No. 2176, Transportation Research Board of the National Academies, Washington, D.C, p. 1–13.
Received the Charley V. Wootan Award for the Best Paper in Transportation Policy and Organization.

Hatzopoulou, M. and E.J. Miller. 2010. Linking an activity-based travel demand model with traffic emission and dispersion models: Transport's contribution to air pollution in Toronto. *Transportation Research Part D*, 15 (6): 315-325.

Hatzopoulou, M. and E.J. Miller. 2009. Transport policy evaluation in metropolitan areas: The role of modelling in decision-making. *Transportation Research Part A*, 43 (4): 323-338.

Hatzopoulou, M. and E.J. Miller. 2008. Institutional integration for sustainable transportation policy in Canada. *Transport Policy*, 15 (3): 149–162.

Hatzopoulou, M., E.J. Miller and B. Santos. 2007. Integrating vehicle emission modelling with activity-based travel demand modelling: A case study of the Greater Toronto Area (GTA), *Transportation Research Record*, Journal of the Transportation Research Board, No. 2011, Transportation Research Board of the National Academies, Washington, D.C, pp. 29-39.

Kazopoulo M., I. Kaysi and M. El-Fadel. 2007. A stated-preference approach towards assessing a vehicle inspection and maintenance program. *Transportation Research Part D*, 12 (5): 358-370.

Kazopoulo M., M. El-Fadel and I. Kaysi. 2005. Emission standards development with exhaust emission measurements in a typical inspection and maintenance program. *ASCE Journal of Environmental Engineering*, 131 (9): 1330-1339.

El Fadel, M., I. Alameddine, **M. Kazopoulo**, M. Hamdan and R. Nasrallah. 2001. Carbon Monoxide and Volatile Organic Compounds as indicators of indoor air quality in underground parking facilities. *Indoor + Built Environment*, 10 (2): 70-82.

Tabbal, M., **M. Kazopoulo**, T.C. Christidis and S. Isber. 2001. Enhancement of the molecular nitrogen dissociation levels by Argon dilution in surface wave sustained plasmas. *Applied Physics Letters*, 78: 2131.

PEER-REVIEWED CONFERENCE PAPERS

Hatzopoulou, M., E.J. Miller, and J.Y. Hao. 2009. Linking an activity-based travel demand model with emission, dispersion, and population exposure models for appraisal of strategic transport plans.

Proceedings of the 12th Conference of the International Association for Travel Behaviour Research (IATBR), Jaipur, India, December.

Hatzopoulou, M. and E.J. Miller. 2008. Sustainable transportation in Canadian metropolitan areas: Assessing the mechanisms for planning, funding, and implementation. Proceedings of the 2008 Conference of the Transportation Association of Canada, Toronto, September.

Hatzopoulou, M., B. Santos and E.J. Miller. 2008. Developing regional 24-hour profiles for link-based, speed-dependent vehicle emissions and zone-based soaks. CD Proceedings of the 87th Annual Meeting of the Transportation Research Board, Washington, DC, January.

Hatzopoulou, M. and E.J. Miller. 2008. Sustainable transportation: Theory or practice? A perspective of planners and policy-makers. CD Proceedings of the 87th Annual Meeting of the Transportation Research Board, Washington, DC, January.

Hatzopoulou, M. and E.J. Miller. 2007. Appraisal of transport policy and strategic plans in Canadian urban areas: A survey of planners and policy-makers in government agencies across Canada. CD Proceedings of the 11th World Conference on Transportation Research, Berkeley, CA, June.

Hatzopoulou, M. and E.J. Miller. 2006. Indicators of sustainable transport for integrated policy appraisal: Linking sustainable transport plans with decision-making in the Greater Toronto Area (GTA). CD Proceedings of the New Scholars Conference on Sustainable Transportation, Bloomington, Indiana, May.

Buliung, R.N., **M. Hatzopoulou** and M. Roorda. 2006. Plugging the “environment” into Integrated Urban Models: Recent progress and research direction. Proceedings of the Canadian Transportation Research Forum, Quebec City, Quebec, May.

Kazopoulo, M., I. Kaysi and M. El-Fadel. 2004. Implementing an inspection and maintenance program: A stated-preference approach. CD Proceedings of the 10th World Conference on Transport Research, Istanbul, Turkey, July.

Tabbal, M., T. Christidis, S. Isber and **M. Kazopoulo**. 2001. Nitrogen atom production in N₂, Ar/N₂ and He/N₂ surface wave discharges. 15th International Symposium on Plasma Chemistry, 6: 2237, Orleans, France, July.

Kazopoulo, M., M. Tabbal, T. Christidis and S. Isber. 2001. Characterization of a surface wave discharge for the deposition of nitride thin films. Proceedings of the Second French Lebanese Colloquium on Materials Sciences (CSM2), Beirut, Lebanon, May.

BOOK CHAPTERS

Kazopoulo, M., M. El-Fadel and I. Kaysi. 2004. Emissions standards development for an I/M program. Air Pollution XII, (Brescia C.A. ed.), WIT Press, Southampton, UK, ISBN 1-85312-722-1.

ABSTRACTS IN CONFERENCE PROCEEDINGS

Hatzopoulou, M., B. Santos, W. Li, J.S. Lee, J. Ferreira, and C. Zegras. 2010. Urban sustainability in the face of uncertainty: Linking integrated urban models, scenario planning and performance measurement. Better Air Quality, Singapore, November.

Hatzopoulou, M., B. Santos, C. Zegras, R. Macário, A. Antunes. 2010. Linking transportation and land-use models with performance measures reflecting transport externalities. Urban Environmental Pollution, Boston, June.

Hatzopoulou, M., C. Zegras, F. Pereira, S. Niza, J. Fernandez, M. Ben Akiva. 2010. Urban metabolism and land-use transport modelling: Addressing scale issues and crossing disciplinary boundaries. Urban Environmental Pollution, Boston, June.

Hao, J.Y., **M. Hatzopoulou**, and E.J. Miller. 2009. An integrated microsimulation framework for modelling traffic emissions in the Greater Toronto Area. Proceedings of the 56th Annual North American Meetings of the Regional Science Association International, San Francisco, November.

Hatzopoulou, M. and E.J. Miller. 2008. Linking an activity-based travel demand model with traffic emission and dispersion models: Predicting transport's contribution to air pollution in Toronto. Proceedings of the 55th Annual North American Meetings of the Regional Science Association International, Brooklyn, November.

Hatzopoulou, M. and E.J. Miller. 2008. A modelling system for predicting daily exposure of urban population to vehicle-induced air pollution. Proceedings of the 55th Annual North American Meetings of the Regional Science Association International, Brooklyn, November.

Hatzopoulou, M. and E.J. Miller. 2007. Development of 24-hour profiles for exhaust and evaporative vehicle emissions in the Greater Toronto Area. Canadian Regional Science Association Meeting, September.

Hatzopoulou, M. and E.J. Miller. 2007. Deriving performance measures from integrated land-use and transportation models to assess the sustainability of transport policies. 4th International Conference of the International Society for Industrial Ecology, Toronto, June.

Hatzopoulou, M. and E.J. Miller. 2006. Bridging the gap between modelling and decision-making: A framework for assessing the sustainability of land-use and transport policies in the GTA. 53rd Annual North American Meetings of the Regional Science Association International, Toronto, November.

Roorda, M.J., **M. Hatzopoulou** and M.E.H. Lee-Gosselin. 2006. Integrating activity travel behaviour research into policy decisions: A research communication initiative. 53rd Annual North American Meetings of the Regional Science Association, Toronto, November.

Kazopoulo, M., M. El-Fadel and I. Kaysi. 2003. Emissions standards development for an I/M program. Air Pollution 2003, Wessex Institute of Technology, Sicily, Italy, September.

El Fadel, M., I. Alameddine, **M. Kazopoulo**, M. Hamdan and R. Nasrallah. 2001. Assessment of indoor air quality in an underground parking facility. Monitoring Air Pollution, Manchester, U.K., April.

TECHNICAL REPORTS

Miller, E.J., **M. Hatzopoulou**, J.Y. Hao, J.A. Vaughan. 2009. Development of an operational integrated urban model system: Modelling of transport emissions in the Greater Toronto and Hamilton Area. Final Report Submitted to the City of Toronto. Urban Transportation Research and Advancement Centre, University of Toronto.

Kennedy, C., B. Karney, E. Miller, **M. Hatzopoulou**. 2009. Infrastructure and the economy: Future directions for Ontario. Final Report Submitted to the Martin Prosperity Institute, University of Toronto. Department of Civil Engineering, University of Toronto.

Miller, E.J. and **M. Hatzopoulou**. 2008. Organizational structures for travel demand modelling. Final Report Submitted to Metrolinx. Urban Transportation Research and Advancement Centre, University of Toronto.

Hatzopoulou, M. and E.J. Miller. 2008. Development of an operational integrated urban model system: Volume II – A survey of Canadian modelling practice and needs. Final Report Submitted to the City of Toronto. Urban Transportation Research and Advancement Centre, University of Toronto.

Hatzopoulou, M. and E.J. Miller. 2008. Development of an operational integrated urban model system: Volume III – Environmental modelling. Final Report Submitted to the City of Toronto. Urban Transportation Research and Advancement Centre, University of Toronto.

Roorda, M. J., M.E.H. Lee-Gosselin and **M. Hatzopoulou**. 2006. Integrating activity travel behaviour research into policy decisions: A Research Communication Project for a Major Collaborative Research Initiative Undertaken by the PROCESSUS Network. Final Report. Department of Civil Engineering, University of Toronto.

El-Fadel, M., **M. Kazopoulo**. 2003. Perspectives in urban air quality management: Policy options in the international context. Department of Civil and Environmental Engineering, American University of Beirut, University Research Board, United States Agency for International Development.

El-Fadel, M., **M. Kazopoulo**. 2003. Measurement of vehicle exhaust emissions: Development of Inspection and Maintenance emission standards. Department of Civil and Environmental Engineering, American University of Beirut, University Research Board, United States Agency for International Development.

El-Fadel, M., **M. Kazopoulo**. 2003. Implementation of Inspection and Maintenance in Lebanon: A stated-preference approach. Department of Civil and Environmental Engineering, American University of Beirut, University Research Board, United States Agency for International Development.

El Fadel, M., I. Nuwayhid, H. Tamim, M. Khojali, F. Chaaban, **M. Kazopoulo**, S. Yaman and A. Abou Ibrahim. 2002. Aircraft and vehicle induced emissions at the Beirut International Airport: A characterization and exposure assessment. Department of Civil and Environmental Engineering, American University of Beirut, University Research Board, National Council for Scientific Research, United States Agency for International Development.

El-Fadel, M., M. Zeinati, A. Abou Ibrahim, H. Sbayti, **M. Kazopoulo**, I. Kaysi, S. Shazbak and M. Chahine. 2000. Environmental Impact Assessment Training Manual, Roads and Highways, American University of Beirut, Ministry of Environment, World Bank.

TECHNICAL PRESENTATIONS

Linking transportation and land-use models with performance measures reflecting transport externalities. Poster presentation, Urban Environmental Pollution, Boston, June, 2010.

Urban metabolism and land-use transport modelling: Addressing scale issues and crossing disciplinary boundaries. Poster presentation, Urban Environmental Pollution, Boston, June, 2010.

Enquête sur les processus d'évaluation des politiques en transport urbain au Canada: Incidences sur la modélisation (Transport policy evaluation in Canadian urban areas: The role of modelling in decision-making). Invited Speaker. Practices and Challenges of Urban Transportation Modelling, organized by Association Québécoise du Transport et des Routes (AQTR), Montreal, February, 2009.

Linking an activity-based travel demand model with traffic emission and dispersion models: Predicting transport's contribution to air pollution in Toronto. 55th Annual North American Meetings of the Regional Science Association International, Brooklyn, November, 2008.

A modelling system for predicting daily exposure of urban population to vehicle-induced air pollution. 55th Annual North American Meetings of the Regional Science Association International, Brooklyn, November, 2008.

Land-Use, Transport, and other Impacts of High-Speed Rail. Guest Speaker at High Speed Rail Seminar, John H. Daniels Faculty of Architecture, Landscape and Design, University of Toronto, November, 2008.

Sustainable transportation in Canadian metropolitan areas: Assessing the mechanisms for planning, funding, and implementation. 2008 Conference of the Transportation Association of Canada, Toronto, September, 2008.

Developing regional 24-hour profiles for link-based, speed-dependent vehicle emissions and zone-based soaks. Poster presentation. 87th Annual Meeting of the Transportation Research Board, Washington, DC, January, 2008.

Sustainable transportation: Theory or practice? A perspective of planners and policy-makers. Poster presentation. 87th Annual Meeting of the Transportation Research Board, Washington, DC, January, 2008.

Development of 24-hour profiles for exhaust and evaporative vehicle emissions in the Greater Toronto Area. Canadian Regional Science Association Meeting, September, 2007

Deriving performance measures from integrated land-use and transportation models to assess the sustainability of transport policies. 4th International Conference of the International Society for Industrial Ecology, Toronto, June, 2007.

Appraisal of transport policy and strategic plans in Canadian urban areas: A survey of planners and policy-makers in government agencies across Canada. 11th World Conference on Transportation Research, Berkeley, CA, June, 2007.

Appraisal of transport policy and strategic plans in Canadian urban areas: A survey of planners and policy-makers. Transportation Research Seminar Series, University of Toronto, March, 2007.

Bridging the gap between modelling and decision-making: A framework for assessing the sustainability of land-use and transport policies in the GTA. 53rd Annual North American Meetings of the Regional Science Association International, Toronto, November, 2006

Integrating vehicle emission modeling with activity-based travel demand modeling: A case study of the GTA. Transportation Research Seminar Series, University of Toronto, October, 2006.

Indicators of sustainable transport for integrated policy appraisal: Linking sustainable transport plans with decision-making in the Greater Toronto Area (GTA). New Scholars Conference on Sustainable Transportation, Bloomington, Indiana, May, 2006.

Developing indicators for assessing the sustainability of land-use and transport policies in the Greater Toronto Area. Transportation Research Seminar Series, University of Toronto, February, 2006.

A stated-preference approach for the implementation of an I/M program: Policy options for the reduction of traffic-induced emissions in the Greater Beirut Area. Transportation Research Seminar Series, University of Toronto, January, 2005.

Implementing an inspection and maintenance program: A stated-preference approach. 10th World Conference on Transport Research, Istanbul, Turkey, July, 2004.

Emissions standards development for an I/M program. Air Pollution 2003, Wessex Institute of Technology, Sicily, Italy, September, 2003.

LANGUAGES

Fluent in English, French, and Arabic