

ESRAA JAMAL

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RESEARCH INTERESTS

- **SUSTAINABLE COMMUNITY PLANNING:** Exploring the economical, technical, and political dimensions of land use, environmental impact, and quality of life, with a focus on planning for public and active transportation modes.
 - **SUSTAINABLE URBAN PLANNING AND DESIGN:** Enhancing walkability and accessibility by reducing car dependency through human-centered and environmentally responsible urban form through designs that are compatible with the arid climate.
 - **BEHAVIORAL INSIGHTS IN SUSTAINABLE POLICY:** Applying travel-behavior modeling and survey research to inform data-driven policy decisions and support sustainability goals.
 - **ARTIFICIAL INTELLIGENCE IN URBAN MOBILITY:** Investigating AI applications in traffic control systems and smart mobility solutions.
 - **GREEN ENERGY IN TRANSPORTATION:** Examining the integration of renewable energy sources and alternative fuels, such as hydrogen, into transportation planning and infrastructure.
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EXPERIENCE

2020 – PRESENT

ASSISTANT PROFESSOR, DEPARTMENT OF ENVIRONMENTAL SCIENCES, COLLEGE FOR LIFE SCIENCES, KUWAIT UNIVERSITY

MAY 2011 – MAY 2012

SCIENTIFIC ASSISTANT, DEPARTMENT OF ENVIRONMENTAL TECHNOLOGY MANAGEMENT, COLLEGE FOR LIFE SCIENCES, KUWAIT UNIVERSITY

JAN 2010 – 2012

MEDIA TEAM MANAGER, TAQA (ENERGY GROUP)

The group focuses on renewable energy topics and their application, online platform

JAN 2011 – MAY 2011

TRAINING COORDINATOR, ENVIRONMENTAL AND WATER RESOURCES INSTITUTE. SALMYIA, KUWAIT

SEP 2009 – DEC 2009

INTERNSHIP, KUWAIT OIL COMPANY, HSE DEPARTMENT. AL-AHMADI, KUWAIT

EDUCATION

FEB 2020

PH.D. IN INTERDISCIPLINARY GRADUATE STUDIES/ ENVIRONMENTAL PLANNING, THE UNIVERSITY OF BRITISH COLUMBIA, CANADA

Thesis title: Sustainable Community Planning: The Business Case to Address Declining Transport-related Quality of Life (QoL) in the Kuwait Urban Area

JUNE 2015

M. SC. IN ENVIRONMENTAL SCIENCE, THE UNIVERSITY OF BRITISH COLUMBIA, CANADA

Thesis title: Assessing Public Transportation as a Potential Solution to the Transportation Challenges in the State of Kuwait

JAN 2010

B. SC. IN ENVIRONMENTAL TECHNOLOGY MANAGEMENT, KUWAIT UNIVERSITY, KUWAIT

PROFESSIONAL DEVELOPMENT

SEP 2025

WORK ZONE SAFETY MANAGEMENT, QATAR TRANSPORTATION AND TRAFFIC SAFETY CENTER (QATAR UNIVERSITY) AND THE INTERNATIONAL ROAD FEDERATION (IRF), QATAR

SEP 2025

POLICY TRAINING RESEARCH WORKSHOP, LONDON SCHOOL OF ECONOMICS (LSE), MIDDLE EAST CENTER, KUWAIT

AUG 2025

ACCESSIBILITY IN CITIES AND INCLUSION IN SOCIETY OF PEOPLE WITH DISABILITY COURSE, TRAINING GATE INTERNATIONAL (TGI), KUWAIT

MAY 2025

SUSTAINABLE CITIES: DATA-DRIVEN POLICY & RESEARCH WORKSHOP, LONDON SCHOOL OF ECONOMICS, MIDDLE EAST CENTER, KUWAIT

SEP 2024

CERTIFIED ADJUDICATOR, KUWAIT NATIONAL DEBATE TEAM, KUWAIT

AUG 2024

CERTIFIED TRAINER, LONDON TRAINING & COACHING, KUWAIT

APR 2024

CERTIFIED ADJUDICATOR, QATAR DEBATE, KUWAIT

MAY 2022

CERTIFIED PERMACULTURE DESIGNER, THATI ORGANIZATION, KUWAIT

Thesis title: Rehabilitation of Rural Areas to Ensure the Self-Sufficiency and Sustainability of Local Communities and Their Resources.

SEP 2019

FOUNDATIONS OF PROJECT MANAGEMENT I COURSE, MITACS INC., CANADA

HONORS AND AWARDS

- The “Environmental Personality” of the year award from the Kuwaiti Green Line Environmental Group, 2023.
- University Graduate Fellowship Award, University of British Columbia, 2019.
- University Graduate Fellowship Award, University of British Columbia, 2016.
- Graduate Entrance Scholarship Award (distinguished application), University of British Columbia, 2012.
- Kuwait University Scholarship for Master and Ph.D., 2011.
- Kuwait University Internal Scholarship for Master, 2011.
- Dean’s List of Academic Distinction (2008, 2009, and 2010), Kuwait University.

MEMBERSHIP

2023 – 2024

KUWAIT HYDROPONIC SOCIETY, TRAINING AND ACTIVITIES COMMITTEE

2017 – 2018

CITE-OKANAGAN EXECUTIVE, STUDENTS’ REPRESENTATIVE

2017 – 2018

MEMBER IN LARGE AT THE AREMA UBCO CHAPTER CLUB, CANADA

2017 – 2018

MEMBER IN LARGE AND MEDIA DIRECTOR AT THE CITE UBCO CLUB, CANADA

CURRENT RESEARCH PROJECTS

- Mobility & Accessibility Study at Kuwait University City (Shadadiyah) – Principal Investigator. *Comprehensive two-phase observational study on vehicle/pedestrian flows, accessibility, and environmental factors*. [Proposal Phase – submitted to KFAS]
- Extreme Climate & Mobility Behavior in the Gulf – Principal Investigator. Ongoing Research Collaboration with Dr. Wael AlHajyaseen from Qatar University. *Investigating the effects of extreme climatic conditions on travel behavior and adaptation patterns, with emphasis on decision-making, system constraints, and policy implications*. (Ongoing)
- Activity-Based Travel Demand Model for the Emirate of Abu Dhabi – Co-Investigator with Dr. Abdulrahman Masoud colleagues from UAE University. *Developing a comprehensive model to analyze travel behavior and forecast demand patterns in Abu Dhabi, with applications for sustainable urban mobility planning*. [Finalizing Stage]

PEER-REVIEWED JOURNAL PAPERS

- Jamal, E., Scott, D., Idris, A. & Lovegrove, G. (2019). Investigating factors affecting the mode choices of commuters in Kuwait City & surrounding urban areas: Strategies for a higher quality and more sustainable public transport system. *Urban Development Issues*. vol. 63, pp. 65–76.

PEER-REVIEWED CONFERENCE PRESENTATIONS AND PROCEEDINGS

- Jamal, E., Scott, D., Idris, A. O., and Lovegrove, G. “Investigating Social, Cultural and Demographic Factors of Commuters’ Mode Choices in Kuwait City and Surrounding Urban Areas: Towards Developing a More Sustainable Transportation System.” Paper accepted for presentation and conference proceedings at the *97th Transportation Research Board (TRB) Annual Meeting*, Washington D.C., January 7th - 11th, 2018.
- Jamal, E., and Lovegrove, G. (2017). “The economic case for metro passenger rail in Kuwait”. *CSCCE Conference Proceedings*, Vancouver, BC, Canada, 2017.

CONFERENCE PRESENTATIONS

- Jamal, E., and Lovegrove, G. (2019). “Investigating Social, Cultural and Demographic Factors of Commuters’ Mode Choices in Kuwait City and Surrounding Urban Areas”. Presented at the CSCCE Conference, Laval (Greater Montreal), Canada, 2019.

INVITED TALKS / GUEST LECTURES

- Jamal, E. “Energy flow in the forest system: Trees”. Guest Lecture, Permaculture Design Course, THATI Organization, Kuwait, 2023.

- Jamal, E. “Developing business case for sustainable transport systems”. School of Engineering, The University of British Columbia, Kelowna BC, Canada, November 2020.
- Jamal, E. “Incorporating the social and environmental factors in planning our cities.” School of Engineering, The University of British Columbia, Kelowna, BC Canada, February 2nd, 2018.
- Session chair “Sustainable Transportation”, at the 6th International Conference on Engineering Mechanics and Materials, CSCE 2017, Vancouver, Canada. June 2nd, 2017.

CONSULTATIONS / TRAINING

- Workshop: “Sustainable Development Goals: Kuwait Vision” workshop for attendees from the Public Authority for Industry, 2024.
- Workshop: “Sustainable Development Goals: Kuwait Vision” workshop for attendees from the Ministry of Electricity, Water and Renewable Energy, 2023
- Consultant: Kuwait’s Mosques graywater reuse project, 2023.
- Series of Workshops: Modern Agricultural Technology workshop for Middel school students from the Ministry of Education in collaboration with the Kuwait Hydroponic Society, 2022.
- Series of Workshops: Modern Agricultural Technology workshop for the Ministry of Education’s science teachers in collaboration with the Kuwait Hydroponic Society, 2022.
- Consultant: Rehabilitation of the Kuwait Fire Department desert camping site, 2022.

EVENT ORGANIZATION

- Event Coordinator, first “Environmental Season at Kuwait University” – Organized in collaboration with the Green Line Group; coordinated lectures, workshops, a book fair, awareness campaigns, and student engagement activities. November 12 – December 12, 2023.
- General Coordinator, the 39th Annual International Conference “Climate Change and the Environmental Implications and Confrontation” – Organized in collaboration with the Gulf Cooperation Council (GCC). November 2022.

REVIEWER FOR THE FOLLOWING JOURNALS/ CONFERENCES

- TRB 2019, 2024
- Regional Science 2018
- CITE 2016