

Nuri Cihat Onat, Ph.D., MSIE

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Citation Profile: <https://scholar.google.com.tr/citations?user=gSVyyUkAAAAJ&hl=en>

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RECENT WORK EXPERIENCE

- 2017-present **Assistant Professor for Research**
Qatar Transportation and Traffic Safety Center
Qatar University, Doha, Qatar
- 2016-2017 **Assistant Professor**
Department of Industrial Engineering,
Istanbul Sehir University, Istanbul Turkey
- Co-director and Co-founder**
Sustainable Systems & Solutions Lab.
Istanbul Sehir University, Istanbul Turkey
- Co-director**
Center for the Environment, Energy, and Society,
Istanbul Sehir University, Istanbul Turkey
- Industrial and Systems Engineering Master Program Coordinator**
Faculty of Engineering and Natural Sciences,
Istanbul Sehir University, Istanbul Turkey
- 2015-2016 **Walton Postdoctoral Research Fellow**
Walton Sustainable Solutions Initiatives, Julie Ann Global Institute of
Sustainability, Arizona State University, Tempe, AZ, USA
- 2014-15 **Graduate Research Assistant**
Department of Civil, Environmental, and Construction Engineering
University of Central Florida, Orlando, FL, USA
- 2013-14 **Graduate Teaching Assistant**
Department of Civil, Environmental, and Construction Engineering
University of Central Florida, Orlando, FL, USA
- 2010-11 **Civil Engineer**
ASD GROUP Engineering and Consultancy Inc.,
ASD Renewable Energy, Ankara, TURKEY

EDUCATION

- 2013 -15 **Doctor of Philosophy in Civil Engineering**
University of Central Florida, Orlando, USA
Sustainability Emphasis; *GPA: 4.0/4.0*
- 2013 -15 **Master of Science in Industrial Engineering**
University of Central Florida, Orlando, USA
Optimization and Systems Engineering Emphasis; *GPA: 4.0/4.0*
- 2011 -13 **Master of Science in Civil Engineering**
University of Florida, Gainesville, USA
Construction Management Emphasis; *GPA: 3.8/4.0*
- 2005 -10 **Bachelor of Science in Civil Engineering**
Gazi University, Ankara, TURKEY; *GPA: 3.43/4.0 (3rd out of 85 students)*

PROFESSIONAL CERTIFICATES

- 2015 -16 **Certificate of Online Teaching**
ASU Educational Initiatives,
Arizona State University, Tempe, AZ, USA
- 2015 -16 **Certificate of Sustainability Literacy Program**
The Julie Ann Wrigley Global Institute of Sustainability,
Arizona State University, Tempe, AZ, USA
- 2012 -13 **Certificate of Engineering Entrepreneurship**
The Engineering Innovation Institute,
University of Florida, Gainesville, USA

RESEARCH INTERESTS

- Sustainable Transportation
- Sustainability Assessment
- Carbon Footprint Accounting
- Dynamic modeling of economic, social and environmental systems, and their interactions
- Multi-criteria Decision Modeling and Optimization
- Sustainable Supply Chain Management
- Energy and the Environment
- Circular Economy
- Electric Vehicles

PUBLICATIONS

Please check Dr. Onat's career page to see the most recent version of the publication list at <http://nuricihatonat.wordpress.com/>

- [1.] **Onat, N. C.**, Kucukvar, M., Aboushaqrah, N., Jabbar, R. (2019). How Sustainable is Electric Mobility? A Comprehensive Sustainability Assessment Approach for the Case of Qatar, *Journal of Applied Energy*, Elsevier (*in press*)
- [2.] **Onat, N. C.**, Kucukvar, M., & Afshar, S. (2019). Eco-efficiency of electric vehicles in the United States: A life cycle assessment based principal component analysis. *Journal of Cleaner Production*, 212, 515-526.
- [3.] Sen, B., **Onat, N. C.**, Kucukvar, M., & Tatari, O. (2019). Material footprint of electric vehicles: A multiregional life cycle assessment. *Journal of Cleaner Production*, 209, 1033-1043.
- [4.] Kucukvar, M., **Onat, N. C.**, Abdella, G. M., & Tatari, O. (2019). Assessing regional and global environmental footprints and value added of the largest food producers in the world. *Resources, Conservation and Recycling*, 144, 187-197.
- [5.] Kelly, K., **Onat, N. C.**, Tatari, O. (2019). Water and carbon footprint reduction potential of renewable energy in the United States: A policy analysis using system dynamics, *Journal of Cleaner Production*, 228, 910-926.
- [6.] Kucukvar, M., **Onat, N. C.**, & Haider, M. A. (2018). Material dependence of national energy development plans: The case for Turkey and United Kingdom. *Journal of Cleaner Production*, 200, 490-500.
- [7.] **Onat, N. C.**, Kucukvar, M., & Tatari, O. (2018). Well-to-wheel water footprints of conventional versus electric vehicles in the United States: A state-based comparative analysis. *Journal of Cleaner Production*.
- [8.] Mathias, J. D., Clark, S. S., **Onat, N.C.**, & Seager, T. P. (2018). An Integrated Dynamical Modeling Perspective for Infrastructure Resilience. *Infrastructures*, 3(2), 11.
- [9.] **Onat, N. C.** (2018). Global Carbon Footprint Analysis of Turkish Construction Industry (in Turkish: Türkiye İnşaat Sektörünün Global Karbon Ayak izi Analizi). *Sakarya University Journal of Science*, 22(2), 529-547.
- [10.] **Onat, N. C.**, Noori, M., Kucukvar, M., Zhao, Y., Tatari, O., & Chester, M. (2017). Exploring the suitability of electric vehicles in the United States. **Energy**, Elsevier, 121, 631-642.
- [11.] **Onat, N.C.**, Kucukvar, M., Halog, A., Cloutier, S. (2017) "Systems Thinking for Life Cycle Sustainable Assessment: A Catalyzer of Harmonizing Tools, Methods, and Disciplines" Special issue on "*Advanced Methodologies for Sustainability Assessment: Theory and Practice*" *Sustainability*, MDPI. 9(5), 706.

- [12.] Shaikh, M., Kucukvar, M., **Onat, N.C.**, Kirkil, G. (2017) "A Framework for Water Footprint Analysis of National Electricity Production Scenarios" *Energy, Elsevier*, 139, 406-421.
- [13.] Cloutier, S., Karner, A., Patel, S., Paralkar, S., Toufani, P., **Onat, N.C.**, Papenfuss, J., Morrison, BA, Briggs, A.D., Carlson, C. (2017) "Measures of a sustainable commute as a predictor of happiness" *Sustainability, MDPI*, 9(7), 1214.
- [14.] Haider, M.A., Kucukvar, M., **Onat, N.C.** (2017) "Material Footprints of National Electricity Production Scenarios until 2050: The Case for Turkey and UK" *Resources, Conservation and Recycling*, 125, 251-263.
- [15.] Ercan, T., **Onat, N. C.**, Tatari, O., & Mathias, J. D. (2017). Public transportation adoption requires a paradigm shift in urban development structure. *Journal of Cleaner Production, Elsevier*, 142, 1789-1799.
- [16.] Alirezaei, M., **Onat, N. C.**, Tatari, O., & Abdel-Aty, M. (2017). The Climate Change-Road Safety-Economy Nexus: A System Dynamics Approach to Understanding Complex Interdependencies. *Systems, MDPI*, 5(1), 6.
- [17.] **Onat, N. C.**, Kucukvar, M., & Tatari, O. (2016). Uncertainty-embedded dynamic life cycle sustainability assessment framework: An ex-ante perspective on the impacts of alternative vehicle options. *Energy, Elsevier*, 112, 715-728.
- [18.] Zhao, Y., **Onat, N.C.**, Kucukvar, M. Tatari, O. (2016) Carbon and energy footprints of electric delivery trucks: A hybrid multi-regional input-output life cycle assessment. *Transportation Research Part D: Transport and Environment, Elsevier*, 47, 195-207.
- [19.] **Onat, N.C.**, Kucukvar, M., Tatari, O. Egilmez G. (2016). Integration of System Dynamics Approach towards Deepening and Broadening the Life Cycle Sustainability Assessment Framework: A Case for Electric Vehicles. *International Journal of Life Cycle Assessment, Springerlink*, 1-26.
- [20.] Kucukvar, M., Cansev, B., Egilmez, G., **Onat, N.C.**, Samadi, H. (2016). Energy-Climate-Manufacturing Nexus: New Insights from Regional and Global Supply Chains of Manufacturing Industries. *Applied Energy, Elsevier, Special Issue on "Energy consumption and GHG mitigation targets"*.
- [21.] Noori, M., Zhao, Y., **Onat, N.C.**, Gardner, S., Tatari, O. (2016) Light-duty electric vehicles to improve the integrity of the electricity grid through Vehicle-to-Grid technology: Analysis of regional net revenue and emissions savings. *Applied Energy, Elsevier*, 168, 146-158.
- [22.] **Onat, N.C.**, Gumus, S., Kucukvar, M., Tatari, O. (2016). Application of TOPSIS and Intuitionistic Fuzzy Set Approach for Ranking the Life Cycle Sustainability Performance of Alternative Vehicle Technologies. *Sustainable Production and Consumption, Elsevier*, 6, 12-25
- [23.] **Onat, N.C.**, Kucukvar, M., Tatari, O., Zheng, Q. (2016) Combined Application of Multi-Criteria Optimization and Life Cycle Sustainability Assessment for

Optimal Allocation of Alternative Passenger Vehicles in U.S. *Journal of Cleaner Production, Elsevier*, 112, 291-307.


- [24.] Ercan, T., **Onat, N.C.**, Tatari, O. (2016). Investigating Carbon Footprint Reduction Potential of Public Transportation in U.S.: A system Dynamic Approach. *Journal of Cleaner Production, Elsevier*, 133, 1260-1276.
- [25.] **Onat, N.C.**, Kucukvar, M., and Tatari, O. (2015). Conventional, Hybrid, Plug-in Hybrid or Electric Vehicles? State-based Comparative Carbon and Energy Footprint Analysis in the United States. *Applied Energy, Elsevier*, 150, 36-49.
- [26.] Kucukvar, M., Egilmez, G., **Onat, N.C.**, and Samadi, H. (2015). A Global, Scope-Based Carbon Footprint Modeling for Effective Carbon Reduction Policies: Lessons from the Turkish Manufacturing. *Sustainable Production and Consumption, Elsevier*. 1, 47-66.
- [27.] Tatari, O., **Onat, N.C.**, Abdel-Aty, M., & Alirezaei, M. (2015). Dynamic Simulation Models for Road Safety and Its Sustainability Implications. **Safety Research Using Simulation University Transportation Center (SaferSim)**, Transportation Research Board, National Academy of Sciences.
- [28.] **Onat, N.C.**, Kucukvar, M., Tatari, O. (2014) Towards Life Cycle Sustainability Assessment of Alternative Vehicle Technologies. *Special issue: Sustainability and Transportation, Sustainability, MDPI, Open-access*, 6(12), 9305-9342.
- [29.] **Onat, N.C.**, Kucukvar, M., and Tatari, O. (2014). Scope-based carbon footprint analysis of U.S. residential and commercial buildings: an input-output hybrid life cycle assessment Approach. *Building and Environment, Elsevier*, 72, 53-62.
- [30.] **Onat, N.C.**, Egilmez, G. and Tatari, O. (2014). Towards Greening the U.S. Residential Building Stock: A System Dynamics Approach. *Building and Environment, Elsevier*, 78, 68-80.
- [31.] **Onat, N. C.**, Kucukvar, M., and Tatari, O. (2014). Integrating triple bottom line input-output analysis into life-cycle sustainability assessment framework: The case for U.S buildings. *International Journal of Life Cycle Assessment, Springerlink*. 78, 68-80.

Ph.D. Dissertation

- ❖ **Onat, N.C.** (2015). "Integrated Sustainability Assessment Framework for the U.S. Transportation" Department of Civil, Environmental, and Construction Engineering, University of Central Florida (Adviser: Dr. Omer Tatari).



Master Thesis

- ❖ **Onat, N.C.** (2015). "A Macro-Level Sustainability Assessment Framework For Optimal Distribution of Alternative Passenger Vehicles" Department of Industrial and Management Systems, University of Central Florida, (Adviser: Qipeng P. Zheng) 

Conference Proceedings (Refereed Abstracts & Papers)

- [32.] **Onat, N.C.**, Aboushaqrah, N., Kucukvar, M., (2019) "Supply Chain Linked Sustainability Assessment of Electric Vehicles: the Case for Qatar" IEEE 6th International Conference on Industrial Engineering and Applications Waseda University, Tokyo, Japan, April 12-15, 2019
- [33.] Al-Quradaghi, S., Kucukvar, M., **Onat, N.C.** (2018) "Towards a Sustainable Management of End-of-Life Vehicles in Qatar: A Closed-Loop Circular Economy Model" IEOM Washington DC, September 27-29, 2018.
- [34.] Toufani, P., Kucukvar, M., & **Onat, N. C.** (2018). Carbon Footprints of Construction Industries: A Global, Supply Chain-linked Analysis. In 2018 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM) (pp. 11-16). IEEE.
- [35.] **Onat, N.C.**, Kucukvar, M., Tatari, O. (2018) "Regional Well-to-Wheel Carbon, Energy, and Water Footprint of Analysis of Electric Vehicles" Asia Pacific Transportation and the Environment Conference, Malang, Indonesia, October 17-18, 2018.
- [36.] Ercan T., Keya N., **Onat, N.C.**, Tatari O., Eluru, N. (2018) "Sustainability Performance Simulation of The United States Urban Mobility Policies" The Transportation Research Board (TRB) 97th Annual Meeting, January 7-11, 2018
- [37.] Atılgan, B., Usaklı, Y.M., Baraçlı, E.M., **Onat, N.C.**, Kucukvar, M. (2017) "Investigation of Optimal Charging Locations for Electric Vehicles in Istanbul", International Conference in Industrial Engineering and Operations Management, Bogota, Colombia, October 25-26, 2017.
- [38.] Kucukvar, M., **Onat, N.C.**, Haider, M.A., Shaikh, M.A. (2017) "A Global Multiregional Life Cycle Sustainability Assessment of National Energy Production Scenarios until 2050" International Conference in Industrial Engineering and Operations Management, Bogota, Colombia, October 25-26, 2017.
- [39.] **Onat, N.C.**, Kucukvar, M., Toufani, P., Haider, M.A. (2017) "Carbon Footprint Analysis of Electric Taxis in Istanbul", International Conference in Industrial Engineering and Operations Management, Bogota, Colombia, October 25-26, 2017.

- [40.] **Onat, N.C.,** Kucukvar, M. (2017) "Applications of Systems Thinking in Sustainability Assessment Methods: The Case for Alternative Vehicle Options" 61st Annual ISSS Conference, Vienna, Austria, 09 -14 July 2017.
- [41.] Kucukvar, M., **Onat, N.C.,** (2017) "Enlarging the System Boundary of Sustainability Assessment of Production and Consumption: A Global Intra-National Analysis" 61st Annual ISSS Conference, Vienna, Austria, 09 -14 July 2017.
- [42.] Kucukvar, M., **Onat, N.C.** (2017) "Global Carbon Accounting Tool (GCAT) for Manufacturing Supply Chains: The World Model" 7th International Conference in Industrial Engineering and Operations Management, Rabat, Morocco, April 11-13, 2017.
- [43.] **Onat, N.C.,** Kucukvar, M. (2017) "Scope-based Carbon Footprint Analysis of Turkish Construction Industry" 7th International Conference in Industrial Engineering and Operations Management, Rabat, Morocco, April 11-13, 2017.
- [44.] **Onat, N.C.,** Kucukvar, M., Tatari, O. Egilmez G. (2016) "Systems Thinking in Life Cycle Sustainability Assessment: The Case for Alternative Vehicle Options" 5th International Social LCA Conference Harvard, June 13-15, 2016, Cambridge, USA.
- [45.] **Onat, N.C.,** Kucukvar, M., Tatari, O. Egilmez G. (2016) "Dynamic Sustainability Assessment of Electric Vehicles: A System Dynamics Approach" The Institute for Operations Research and the Management Sciences (INFORMS) International Conference, June 12-15, 2016, Waikoloa Village, Hawaii, USA.
- [46.] Ercan, T., **Onat, N.C.,** Tatari, O. (2016) "Sustainable Transportation Assessment for Mode Shift of Commuters: An Integration of System Dynamics and Discrete Event Choice Modeling Approaches" The International Symposium on Sustainable Systems and Technology (ISSST), Phoenix, Arizona, USA
- [47.] Alirezaei, M., **Onat, N.C.,** Tatari, O., Abdel-Aty, M. (2016) "Impacts of Climate Change on Road Safety: A System Dynamics Approach". Transportation Research Board (TRB), 95th Annual Meeting, January 10-14, 2016, Washington, D.C, USA.
- [48.] **Onat, N.C.,** Kucukvar, M., Tatari, O., Egilmez, G. (2016) "Dynamic Life Cycle Sustainability Assessment Framework for Electric Vehicles in the U.S." Transportation Research Board (TRB), 95th Annual Meeting, January 10-14, 2016, Washington, D.C, USA.
- [49.] **Onat, N.C.,** Kucukvar M., Tatari, O., Egilmez, G. (2016) "From Conceptual to Operational Life Cycle Sustainability Assessment Framework: A Case for U.S. Transportation" The International Symposium on Sustainable Systems and Technology (ISSST), Phoenix, Arizona, USA
- [50.] Kucukvar M., **Onat, N.C.,** Haider, MA. (2016) "Scarce Resource-dependence of the European Electricity Production Scenarios until 2050" The International

Symposium on Sustainable Systems and Technology (ISSST), Phoenix, Arizona, USA

- [51.] Kucukvar M., Egilmez, G., Cansev, B., and **Onat, N.C.** (2015). "Integrating scope-based carbon footprint modeling into global manufacturing supply chains." The 2015 IIE Annual Conference and Expo, May 29-June 3, 2015, Nashville, Tennessee, USA.
- [52.] Tatari, O., Kucukvar, M., **Onat N.C.** (2014). "Towards a Triple Bottom Line Life Cycle Sustainability Assessment of Buildings." NIST-ASCE-ASME Workshop on Measurement Science for Sustainable Construction and Manufacturing, June 12-13, 2014, Reston, Virginia, USA.
- [53.] **Onat, N.C.**, Egilmez, G., Tatari, O. (2015). "Dynamic Modeling of the Green Building Movement in the U.S.: Strategies to Reduce Carbon Footprint of Residential Building Stock" ICSBIE 2015: International Conference on Sustainable Building and Infrastructure Engineering, Jul 29-30, 2015, Istanbul, Turkey
- [54.] Alirezaei, M., **Onat, N.C.**, Tatari, O., Abdel-Aty, M. (2015) "A Dynamic Simulation Approach to Assess the Climate Change Impacts on Road Safety" RSS2015 : Road Safety & Simulation International Conference, October 6-8, 2015 Orlando, Florida, USA
- [55.] **Onat N.C.**, Kucukvar, M., Tatari, O. (2015). "System Dynamics Approach to Analyze the Environmental, Social, and Economic Sustainability of Transportation Systems" Big Data Analytic and Education Conference, Europe, July 30-31, Istanbul, Turkey.
- [56.] **Onat, N.C.**, Kucukvar, M., Tatari, O. (2014). "Energy and Carbon Footprints of Alternative Vehicle Options: Inclusion of State-specific Variations." INFORMS Annual Meeting, November 9-12, 2014, San Francisco, USA.
- [57.] Kucukvar, M., **Onat, N.C.**, Tatari O. (2014). "Water-Energy Nexus of Electric Vehicle Technologies in the United States." INFORMS Annual Meeting, November 9-12, 2014, San Francisco, USA.
- [58.] Kucukvar, M., **Onat, N.C.**, and Tatari, O. (2013). "Life cycle-based holistic approach to prioritize the LEED credit strategies toward net zero carbon buildings." The 2013 IIE Annual Conference and Expo, May 18-22, 2013, San Juan, Puerto Rico, USA.
- [59.] **Onat, N.C.**, Kucukvar, M., Tatari, O. (2013) "A Holistic Sustainability Analysis of the LEED Credit Strategies for U.S. Green Buildings." The 2013 IIE Annual Conference: The Global Reach of Industrial Engineering, June 26-28, 2013, Istanbul, Turkey.
- [60.] Kucukvar, M., Egilmez G., **Onat, N.C.**, and Tatari, O. (2013). "A policy programming model for optimized carbon footprint reductions strategies of

residential and non-residential constructions.” Engineering and the Sustainability, April 7-9, 2013, Pittsburgh, USA.

Talks & Seminars

- [1.] Panel Speaker in “Smart City Security Workshop, KINDI”, College of Engineering, Doha, Qatar, February, 11, 2019.
- [2.] Potential Environmental, Economic, and Social benefits of Electric Vehicles in Qatar, College of Engineering, Doha, Qatar, February, 21, 2019
- [3.] Triple Bottom Line Sustainability Assessment of Electric Vehicle in Qatar, International Traffic Safety Conference, Doha, Qatar, November 26-27, 2018.
- [4.] Towards Sustainable Transportation in Qatar: Opportunities and Challenges. Holistic Vision for the SDGs in the State of Qatar: Enhancing Science, Policies, Capacity Building, and Research Cooperation. Doha, Qatar, March 26-27, 2018.
- [5.] Sustainability Assessment Methods for Transportation. Qatar Transportation and Traffic Safety Center, College of Engineering, Qatar University, Doha, April, 2018.
- [6.] Thinking in Systems for Life Cycle Sustainability Assessment: A Recent Developments, Applications and Future Perspectives. *Environment Centre*, Charles University, Prague, Czech Republic, July, 2017.
- [7.] Material footprints of electric vehicle technologies: A global multiregional life-cycle analysis. The Institute for Ecological Economics, Vienna University of Economics and Business, Vienna, Austria, July, 2017.
- [8.] Sustainable Engineering and Integrated Sustainability Assessment Methods for Systems. Department of Civil Engineering, Hacettepe University, Ankara, Turkey, July 25, 2015.
- [9.] Integrated Sustainability Assessment Frameworks. TOBB University of Economics and Technology, Ankara, Turkey, July 18, 2015.
- [10.] Applications of System Dynamics in Transportation Sustainability. Department of Civil Engineering, Bogazici University August 5, 2015
- [11.] Systems Analysis for Sustainable Systems. Department of Industrial Engineering, Istanbul Sehir University, August 10, 2015

ACADEMIC & PROFESSIONAL PROJECT EXPERIENCE

- 2018–2019 **Qatar University Sustainable Transportation Initiative: Demonstration of Electric Vehicles in Qatar University Campus**
Qatar University, Doha, Qatar
Sponsor: Marubeni (Industry-University Partnership), Amount: \$850,000
Project Focus: Sustainable Transportation
Role: Principle Investigator
- 2018 – 2019 **Towards Sustainable Transportation in Towards Sustainable and Efficient Mobility in Qatar: Transportation Externalities of Road Transport in Doha**
Qatar University, Doha, Qatar
Sponsor: Qatar Foundation, Amount: 92,000 QAR
Project Focus: Sustainable Transportation
Role: Lead Principle Investigator
- 2018 – 2019 **Life Cycle Sustainability Assessment Model for Qatar LNG Production**
Qatar University, Doha, Qatar
Sponsor: QNRF, Undergraduate research Experience Program, Amount \$30,000
Project Focus: Sustainability Assessment, Supply Chain
Role: Principle Investigator, Mentor
- 2013 – 2017 **Electric Vehicle Transportation Center**
University of Central Florida, Orlando, FL, USA
Sponsor: U.S. Department of Transportation, Amount: \$9,000,000
Project Focus: Sustainable Transportation
Role: Researcher, Co-adviser, LCA practitioner, System Dynamics Modeler
- 2015 – 2016 **Advancing Infrastructure and Institutional Resilience to Climate Change for Coupled Water-Energy Systems**
School of Sustainable Engineering and The Built Environment
Arizona State University, Tempe, AZ, USA
Sponsor: National Science Foundation, Amount: \$500,000
Project Focus: Infrastructure Resilience, Decision Support
Role: Senior Researcher, System Dynamics Modeler
- 2015 – 2016 **ICLEI Sustainable City Network Project**
Global Sustainable Solution Services, Walton Sustainable Solutions Initiatives,
Arizona State University, Tempe, AZ, USA
Sponsor: ICLEI, Amount: N/A
Project Focus: Urban Sustainability
Role: Senior Researcher
- 2015 – 2016 **Green Organics Project**
Global Sustainable Solution Services, Walton Sustainable Solutions Initiatives,
Arizona State University, Tempe, AZ, USA
Sponsor: City of Phoenix, Amount: \$300,000
Project Focus: Urban Metabolism, Circular Economy, Waste to Energy.
Role: Senior Researcher, System Dynamics Modeler

2015 - 2016 **WinCo Food Recycle Project**

Global Sustainable Solution Services, Walton Sustainable Solutions Initiatives,
Arizona State University, Tempe, AZ, USA
Sponsor: WinCo Foods, Amount: \$100,000 (estimated)
Project Focus: Urban Metabolism, Circular Economy, Waste to Energy.
Role: Senior Researcher

2015 - 2016 **Drafting the General Local Transportation Plan for the Municipality of Shkodër, Albania.**

Global Sustainable Solution Services, Walton Sustainable Solutions Initiatives,
Arizona State University, Tempe, AZ, USA
Sponsor: USAID, Amount: \$250,000
Project Focus: Urban Sustainability
Role: Senior Researcher

2014-2015 **Regional Sustainability Impact Assessment of U.S. Electric Power Production**

Department of Civil, Environmental, and Construction Engineering
University of Central Florida, Orlando, FL, USA
Project Focus: Electric Power Generation
Sponsor: University of Central Florida, Amount: \$25,000
Role: Researcher, LCA practitioner

2013- 2014 **Sustainability and Performance-based Ground Stabilization**

Department of Civil, Environmental, and Construction Engineering
University of Central Florida, Orlando, FL, USA
Sponsor: National Science Foundation, Amount: \$341,000
Project Focus: Sustainable Construction Practices
Role: Researcher, LCA practitioner

TEACHING & OUTREACH EXPERIENCE

Recent Teaching Experience

Class Code	Class Name	Institution	Role	Level	Terms
GENG 320	Engineering Economics	Qatar University	Instructor	Undergraduate	Fall 2017, 2018, Spring 2019
GENG 107	Engineering Skills and Ethics	Qatar University	Instructor	Undergraduate	Spring 2018
ISE 524	Computer Simulation Techniques	Istanbul Sehir University	Instructor	Graduate	Spring 2017
IE451/ISE551	Project Management	Istanbul Sehir University	Instructor	Graduate/ Undergraduate	Fall 2016
IE 321	Operations Research	Istanbul Sehir University	Instructor	Undergraduate	Fall 2016, Spring 2017
SOS 220	Systems Thinking	Arizona	Instructor	Undergraduate	Spring, Fall

		State University	(online)		2016 Spring 2017-cont.
DEV	Circular Economy	Arizona State University	Subject Matter Expert	Professional	Fall 2015

Recent Public Engagement & Dissemination Activities

Event Name	Institution	Target Group	Date
International Traffic Safety Conference	Qatar University	General Public & Industry	Nov. 26-27, 2018.
Sustainability Solutions Festival	Arizona State University	General Public & Undergraduate students	Feb 16-21, 2016
Leading the Way to a Sustainable Future	Arizona State University	General Public	Jan. 4, 2016
Sustainability in Science Museums	Arizona State University	General Public	2015-2016
Interdisciplinary Display for Engineering Analysis Statics (IDEAS) Showcase	University of Central Florida	Undergraduate students	Nov. 25, 2014

Graduate Student Thesis Advising

- ❖ *Shiva Afshar (Thesis Title: Eco-efficiency of electric vehicles in the United States: A life-cycle assessment based Principal Component Analysis). Completed in 2016.*
- ❖ *Bünyamin Cansev (Thesis Title: Revealing the regional and global carbon and energy hotspots of Turkish manufacturing supply chains: a global multiregional input-output analysis). Completed in 2016.*
- ❖ *Parinaz Toufani (Thesis Title: A temporal analysis of peer-to-peer lending platforms: a case study of lending club). Completed in 2017*
- ❖ *Muhammed Ali Haider (Thesis Title: The material footprints of UK and Turkish energy production). 15/09/2015-completed in 2017.*
- ❖ *Taha Moiz (Thesis Title: A web-based decision support tool for global and supply chain-linked carbon footprint accounting). Completed in 2017*
- ❖ *Mohammad Abdullah Shaikh (Thesis Title: Uncertainty and scenario-based water footprint analysis of the Turkish electricity production sectors). Completed in 2017*
- ❖ *Hamidreza Samadi (Thesis Title: Energy-climate-economy-society nexus: regional and global supply chains of the world's food production). Completed in 2017.*

Undergraduate Student Project Advising

- ❖ *Bedriye Atilgan, Yilmaz Muhammed Usakli, Ekrem Melih Baracli (Project Title: Investigation of Optimal Charging Location for Electric Vehicles in Istanbul). Completed in 2017. Published as **conference paper** to International Congress on Industrial Engineering and Operations Management. Bogota, Colombia, October 25-26, 2017.*
- ❖ *Sevgi Bilic, Biset Toprak, Celile Demir, Tugba Gok (Project Title: Selection of Optimal Electric Vehicle for Taxis in Istanbul). Completed in 2017.*
- ❖ *Farhi Raslan, Ayse Perihan Kirkic, Nurdan Varan, Sinem Sekili (Project Title: Global Supply-chain Based Carbon Footprint Analysis of Turkish Manufacturing Sectors). Completed in 2017.*
- ❖ *Melike Tuloglu, Cihat Arslan, Mehmet Ali Kaplan, Mohmed Moneer Saeed Aid, Taha Yaseen Fadhil (Project Title: Building Energy Retrofitting Forecast for Energy Efficiency Investments in Istanbul). Completed in 2017.*

PROFESSIONAL MEMBERSHIPS, AWARDS, AND SERVICE

Professional Memberships

The Institute for International Society for Industrial Ecology (ISIE), Institute of Industrial Engineers (IIE), Operations Research and the Management Sciences (INFORMS), World Society of Sustainable Energy Technology (WSSET), Leadership in Energy and Environmental Design (LEED), American Society of Civil Engineers (ASCE),

Scholarships and Awards

- Listed Among the Most Cited Papers in the Journal of Sustainable Production and Consumption, 2018
- Australian Endowment Research Fellowship, University of Queensland, Australia, 2017
- Nomination for the most cited article in the Journal of Sustainable Production and Consumption, Elsevier / Scopus since 2015.
- The best paper award in Sustainability Operations Track at International Conference on Industrial Engineering and Operations Management, Bogota, Colombia, 2017
- Erasmus plus Mobility Scholarship, Charles University, Czech Republic, 2017
- Walton Sustainability Fellowship, Arizona State University, Tempe, USA, 2015
- Graduate Research Assistantship at University of Central Florida, USA, 2013
- Graduate Teaching Assistantship at University of Central Florida, USA, 2012
- College of Engineering Achievement Award at University of Florida, USA, 2012
- Fulbright Opportunity Grant, 2011
- Honor Degree Graduation Award by Department of Civil Engineering, Gazi University, Turkey, 2010

Student Achievements under my Supervision

- *Taha Moiz, Admission to Funded Ph.D. Program in the Department of Industrial Engineering at Georgia Institute of Technology, USA (Fall, 2017)*

- *Muhammad Ali Haider*, Admission to Funded Ph.D. Program in the School of Natural Resources at North Caroline State University, USA (Fall, 2017)

Media Appearances

- The Peninsula Newsletter. (December 20, 2017). Sustainable Mobility and Safety Workshop <https://www.thepeninsulaqatar.com/article/20/12/2017/Workshop-on-Safe-and-SustainableMobility-at-QU>
- Gulfnews. (December 20, 2017). Sustainable Mobility and Safety Workshop <http://www.gulf-times.com/story/575739/QU-workshop-highlights-sustainable-mobility>

Service to Profession

- International Academic Journals
 - Subject Editor, International Journal of Data Mining Science (IJDAT). See at <http://www.ijdat.org/>
 - Reviewer, 2015-present;
 - Transportation Research Part D: Transport and Environment, Elsevier
 - Environmental Science & Technology, ACS
 - International Journal of Sustainable Transportation, Taylor & Francis
 - Applied Energy, Elsevier
 - International Journal of Life Cycle Assessment, Springer Ink
 - Energy, Elsevier
 - Energy Policy, Elsevier
 - Building and Environment, Elsevier
 - Energy and Buildings, Elsevier
 - Journal of Cleaner Production, Elsevier
 - Sustainability, MDPI
- International Conferences
 - Chair of the Strategic Planning and Sustainability Session, The Institute for Operations Research and the Management Sciences (INFORMS) International Conference, June 12-15, 2016, Waikoloa Village, Hawaii, USA.
 - Served as an Organizing Committee Member at the International Workshop and Certificate Program on Big Data Analytics, Privacy and Security in Istanbul, Turkey, on October 10-14, 2016.
- Serving as External Committee Member of Theses;
 - Ahmet Sahin, MS in Industrial Engineering, Thesis Title "A Web-Based Decision Support System for Class-Teacher Timetabling Problem" 19.01.2017, Istanbul Sehir University.
 - Muhammet Ali Taskin, MS in Industrial Engineering, Thesis Title "Optimizing the Predisaster Emergency Response System of Istanbul" 14.03.2017, Istanbul Sehir University.
- Service to undergraduate & high school student events & clubs
 - Academic Adviser, Gastronomy Club, Istanbul Sehir University, 2016-2017.

- Showcase Committee Member, Interdisciplinary Display for Engineering Analysis Statics (IDEAS) Showcase, University of Central Florida, Fall 2013&2014.
- Volunteer Adviser for Bridge Building Contest, Gainesville, FL, 2011-2012.