

Seung-Jin Lee, Ph.D.

School of Engineering and Technology
University of Washington Tacoma
✉ sjleeuw@uw.edu

Current Appointment

University of Washington Tacoma

Assistant Professor, School of Engineering and Technology, 09/2020-present

Prior Appointments

University of Michigan-Flint

Associate Professor (with tenure) of Mechanical Engineering, 05/2020-06/2020

Assistant Professor of Mechanical Engineering, 09/2014-05/2020

Assistant Professor of Sustainability, 09/2014-08/2018

U.S. Environmental Protection Agency

Oak Ridge Institute of Science and Education (ORISE) Postdoctoral Research Fellow, Office of Research and Development, National Risk Management Research Laboratory, Cincinnati, OH, 10/2011-08/2014

CEMEX

Research & Development Engineer, Kuala Lumpur, Malaysia, 06/2003-06/2004

RMC Group

Engineering Intern, Kuala Lumpur, Malaysia, 05/2002-08/2002

Education

- 2011 **Ph.D.**, Mechanical Engineering, University of Washington, Seattle, WA
 Dissertation: *The sustainability of regional e-waste management systems: data, assessment, and policies investigated through monitor technology case studies*
- 2008 **Graduate Certificate**, Environmental Management, University of Washington
- 2005 **M.S.**, Civil and Environmental Engineering, Carnegie Mellon University, Pittsburgh, PA
- 2003 **B.S.**, Mechanical Engineering, Boston University, Boston, MA

Teaching Responsibilities

University of Washington Tacoma

T CORE 102 Introduction to Engineering

T UNIV 190 Undergraduate Seminar for Success in STEM

TME 221 Statics

TME 223 Dynamics

TEE 225 Engineering Ethics

TME 332 Fluid Mechanics

TME 351 Engineering Probability and Statistics

TME 403 Engineering Economics
TME 415 Sustainable Engineering and Design
TME 416 Life-Cycle Assessment

University of Michigan-Flint

ESS 180 Global Environmental Systems and Sustainability
ESS 360 Renewable and Sustainable Energy
ESS/URP 491 Transportation Planning
EGR 230 Statics
EGR/POL 235 Global Energy
EGR 260 Mechanics of Deformable Solids
EGR 300 Renewable Energy
EGR 314 Engineering Ethics and Communication
EGR 370 Dynamics
ESS/EGR 390 Life Cycle Assessment and Industrial Ecology
ESS 492/EGR 393 Sustainable Design of Products and Systems
EGR 511 Advanced Mechanics of Materials

Publications (*Supervised student co-authors)

Peer-reviewed journal articles

- S. Adjei-Nimoh, A. Yu, Y. Yang, S.-J. Lee, W.H. Lee. Enhanced MC-LR photodegradation under varying environmental and operational conditions using Au/Ni-MOF for practical application in surface water. In preparation for submission to *Science of the Total Environment*.
 - S.-J. Lee & J. Kim. Heavy Metals in Air Emissions and Assessment of Human Toxicity Footprint. In preparation for submission to *Science of the Total Environment*.
1. R. Lindbom*, K. Nichols*, D. Tanner*, **S.-J. Lee**, H. Dillon (2025). Assessment of end-of-life Design in Consumer Coffee Makers. *ACS Sustainable Resource Management*, Article ASAP, DOI: 10.1021/acssusresmgt.5c00012. [No IF since first issue was January 25, 2024; sister journal is *ACS Sustainable Chemistry & Engineering*, IF = 7.1] (Contribution: Writing - Draft preparation, review, editing; Supervision; Methodology; Conceptualization)
 2. J. Kim, **S.-J. Lee**, G.-H. Lee*, Y.W. Kim*, Y. Hwang (2022). Ammonia flow analysis in the domestic fertilizer industry of South Korea. *Journal of Material Cycles and Waste Management*, 24, 517-527, DOI:1007/s10163-021-01338-w. [IF = 2.7] (Contribution: Writing - Draft preparation, review, editing; Supervision; Methodology; Conceptualization)
 3. **S.-J. Lee**, J.W. Kim*, Y.H. Hwang, J. Kim, Y. Kim & S. Chen (2019). Butadiene substance flow analysis and management in South Korea. *Journal of Cleaner Production*, 220, 331-339, DOI:10.1016/j.jclepro.2019.02.153. [IF = 9.8] (Contribution: Writing - Draft preparation, review, editing; Formal Analysis; Supervision; Methodology; Conceptualization)
 4. J.-H. Hwang*, J. Church*, **S.-J. Lee**, J. Park & W.H. Lee (2016). Use of Microalgae for Advanced Wastewater Treatment and Sustainable Bioenergy Generation. *Environmental Engineering*

- Science*, 33 (11), 882-897, DOI:10.1089/ees.2016.0132. [IF = 1.8] (Contribution: Writing - Draft preparation, review, editing; Supervision; Methodology)
5. W.W. Ingwersen, M. Gausman, A.V. Weisbrod, D. Sengupta, **S.-J. Lee**, J.C. Bare, E. Zanolli & M. Ceja (2016). Detailed Life Cycle Assessment of Bounty® Paper Towel Operations in the United States. *Journal of Cleaner Production*, 131, 509-522, DOI:10.1016/j.jclepro.2016.04.149. [IF = 9.8] (Contribution: Writing - Draft preparation, review, editing; Formal analysis; Methodology)
 6. W.W. Ingwersen, M. Ceja, A.V. Weisbrod, H. Cabezas, B. Demeke, T. Eason, R.L. Smith, D. Sengupta, E. Zanolli, M. Gausman, **S.-J. Lee**, X. Ma, B. Weber, M. Alvarez, J.C. Bare, J. Abraham, M. A. Gonzalez, G.J. Ruiz-Mercado (2016). Evaluating consumer product life cycle sustainability with integrated metrics: A Bounty® Case Study. *Industrial & Engineering Chemistry Research*, 55(12), 3433-3441, DOI: 10.1021/acs.iecr.5b03743. [IF = 3.8] (Contribution: Writing - Draft preparation, review, editing; Formal analysis, Methodology)
 7. K. Vadoudi*, B. Laratte*, **S.-J. Lee**, N. Troussier & J. Kim (2015). E-Waste Management and Resources Recycling in France. *Waste Management & Research*, 33(10), 919-929, DOI: 10.1177/0734242X15597775. [IF = 3.7] (Contribution: Writing - Draft preparation, review, editing; Supervision, Methodology, Conceptualization)
 8. M. Allison, **S.-J. Lee**, A. Kuvvarapu* (2015). A Policy Based Approach to Models at Runtime within Cyber-Physical Systems: A Case Study for Microgrids. *International Journal of Electrical Energy*, 3(2), 94-98, DOI: 10.12720/ijoe.3.2.94-98. (Contribution: Writing - Draft preparation, review, editing; Supervision)
 9. **S.-J. Lee**, T.R. Hawkins, W.W. Ingwersen & D.M. Young (2015). Exploring the Use of Ecological Footprint in Life Cycle Impact Assessment: Findings from a Comparison of Transportation Fuels. *Journal of Industrial Ecology*, 19(3), 416-426, DOI: 10.1111/jiec.12188. [IF = 4.9] (Contribution: Writing - Draft preparation, review, editing; Formal Analysis; Supervision; Methodology; Conceptualization)
 10. W. Ingwersen, H. Cabezas, A.V. Weisbrod, T. Eason, B. Demeke, X. Ma, T. Hawkins, **S.-J. Lee**, J.C. Bare & M. Ceja (2014). Integrated Metrics for Improving the Life Cycle Approach to Assessing Product System Sustainability. *Sustainability*, 6(3), 1386-1413, DOI: 10.3390/su6031386. [IF = 3.3] (Contribution: Writing - Draft preparation, review, editing; Formal analysis, Methodology)
 11. M.S. Noon, **S.-J. Lee** & J. Cooper (2011). A Life Cycle Assessment of End-of-Life Computer Monitor Management in the Seattle Metropolitan Region. *Resources, Conservation & Recycling*, 57, 22-29, DOI:10.1016/j.resconrec.2011.09.017. [IF = 11.2] (Contribution: Writing - Draft preparation, review, editing; Formal Analysis; Supervision; Methodology; Conceptualization)
 12. **S.-J. Lee**, M. Noon & J.S. Cooper (2011). Towards the Estimation of Liquid Crystal Display Materials for Waste Management and Other Assessments. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, 1(6), 934-950, DOI: 10.1109/TCPMT.2011.2118760. [IF = 2.3] (Contribution: Writing - Draft preparation, review, editing; Formal Analysis; Supervision; Methodology; Conceptualization)
 13. **S.-J. Lee**, J.S. Cooper & G. Hicks (2010). Characterization of Monitor Recycling in Seattle, Washington. *Regional Environmental Change*, 10(4), 349-369, DOI: 10.1007/s10113-009-

- 0106-8. [IF = 3.4] (Contribution: Writing - Draft preparation, review, editing; Formal Analysis; Supervision; Methodology; Conceptualization)
14. J.S. Cooper, **S.-J. Lee**, J. Elter, J. Boussu & S. Boman (2009). Life cycle design metrics for energy generation technologies: method, data, and case study. *Journal of Power Sources*, 186(1), 138-157, DOI:10.1016/j.jpowsour.2008.09.067. [IF = 8.1] (Contribution: Writing - Draft preparation, review, editing; Formal Analysis; Methodology; Conceptualization)
 15. J.S. Cooper, L. Woods & **S.-J. Lee** (2008). Distance and backhaul in commodity transport modeling. *International Journal of Life Cycle Assessment*, 13(5), 389-400, DOI: 10.1007/s11367-008-0001-4. [IF = 4.9] (Contribution: Writing - Draft preparation, review, editing; Formal Analysis; Methodology; Conceptualization)

*Book chapter (*Supervised student co-authors)*

1. J.-H. Hwang*, A. Sadmani*, **S.-J. Lee**, K.-T. Kim & W.H. Lee (2020). Microalgae: An eco-friendly tool for the treatment of wastewaters for environmental safety, *Bioremediation of Industrial Wastes for Environmental Safety, Volume II: Biological agents and methods for industrial waste management* (Eds. Bharagava, R.N. and Saxena, G.), Springer Nature, Singapore. (Contribution: Writing - Draft preparation, review, editing; Formal Analysis; Methodology)

*Peer-reviewed conference articles (*Supervised student co-authors)*

- James*, **S.-J. Lee**, H.E. Dillon. (2026). Towards the Circularity of Household Appliances: A Material Flow Analysis of Consumer Coffee Makers. In preparation for *ASME 2026 International Mechanical Engineering Congress & Exposition*, Vancouver, BC. (Abstract accepted)
 - A. Agarwal, A.S. Gill, **S.-J. Lee**, V. Tummula. (2026). A Human-in-the-Loop Approach to Mitigate Cyberattacks in Machine Vision Systems for Tool Wear Monitoring. In preparation for the *ASME 2026 International Mechanical Engineering Congress & Exposition*, Vancouver, BC. (Abstract accepted)
1. V. Tummula, A. Agarwal, K. Bottomley, A.S. Gill, **S.-J. Lee**. (2025). AI and Cybersecurity Literacy Course for Mechanical Engineers. Proceedings of the *ASME 2025 International Mechanical Engineering Congress & Exposition, Volume 7: Engineering Education; Fluids Engineering*, Memphis, TN. (Contribution: Writing - Draft preparation, review, editing; Formal Analysis; Methodology)
 2. James*, A. Keller*, **S.-J. Lee**, H.E. Dillon. (2025). Evaluating Circular Design of Appliances: End of Life Assessment of a Washer Dryer System. Proceedings of the *ASME 2025 International Mechanical Engineering Congress & Exposition. Volume 6: Energy*, Memphis, TN. (Contribution: Writing - Draft preparation, review, editing; Formal Analysis; Supervision; Methodology; Conceptualization)
 3. A.S. Gill, A. Agarwal, V. Tummula, **S.-J. Lee**, L. Mears. (2025). Evaluating the Impact of Cyberattacks on Ai-Based Machine Vision Systems: A Case Study of Threaded Fasteners. Proceedings of the *ASME 2025 International Mechanical Engineering Congress & Exposition*,

- Volume 2: Advanced Manufacturing*, Memphis, TN. (Contribution: Writing - Draft preparation, review, editing; Formal Analysis; Methodology)
4. E.C. Cline, H.E. Dillon, A.K. Sesko, E. Cilli-Turner, Z. Kmail, **S.-J. Lee**, R. Sakpal (2025). Supporting pre-STEM Majors while Closing Equity Gaps: Mentoring in a Multi-Disciplinary S-STEM Program. *American Society for Engineering Education 2025 Annual Conference*, Montreal, Canada. (Contribution: Writing - Draft preparation, review, editing; Methodology)
 5. A.S. Gill, A. Agarwal, V. Tummula, **S.-J. Lee**, L. Mears. (2024). Comparison of Explainable AI for Image Classification to Human Perception: A Case Study of Threaded Fasteners. *Proceedings of the ASME 2024 International Mechanical Engineering Congress and Exposition. Volume 2: Advanced Manufacturing*, Portland, OR. DOI: 10.1115/IMECE2024-146133. (Contribution: Writing - Draft preparation, review, editing; Formal Analysis; Methodology) [**Best Paper Competition winner**]
 6. E.C. Cline, H.E. Dillon, A.K. Sesko, E. Cilli-Turner, E. Bjorling, M. Nahmani, J. Dinglasan-Panlilio, Z. Kmail, **S.-J. Lee** (2024). Institutional Practices to Close the Equity Gap. *American Society for Engineering Education 2024 Annual Conference*, Portland, OR. DOI: 10.18260/1-2--46896. (Contribution: Writing - Draft preparation, review, editing; Methodology)
 7. E.C. Cline, M. Abraham, S. Alaei S. H.E. Dillon, J. Dinglasan-Panlilio, J. Heller, Z. Kmail, **S.-J. Lee**, E. Ma, M. Nahmani, A. Sesko, K.A. Yeung (2023). ACCESS in STEM: An S-STEM Project Supporting Economically Disadvantaged STEM-Interested Students in their First Two Years. *American Society for Engineering Education 2023 Annual Conference*, Baltimore, MD. DOI: 10.18260/1-2--42618. (Contribution: Writing - Draft preparation, review, editing; Methodology)
 8. **S.-J. Lee**, H. Dillon (2023). Steeped in Engineering: Using coffee to introduce students to engineering. *American Society for Engineering Education PNW Section Conference*, Spokane, WA. DOI: 10.18260/1-2--44770 (Contribution: Writing - Draft preparation, review, editing; Formal Analysis; Methodology; Conceptualization)
 9. P. Weber*, **S.-J. Lee**, H. Dillon (2022). Benefits of Concept Mapping in Statics. *American Society for Engineering Education 2022 Annual Conference*, Minneapolis, MN, June 26-29. DOI: 10.18260/1-2—40968. (Contribution: Writing - Draft preparation, review, editing; Formal Analysis; Supervision; Methodology; Conceptualization)
 10. **S.-J. Lee** (2015). Incorporating systems-based life cycle thinking and sustainability in engineering curricula. *American Society for Engineering Education North Central Section Conference*, Cincinnati, OH, April 17-18. (Contribution: Writing - Draft preparation, review, editing; Formal Analysis; Methodology; Conceptualization)
 11. M. Allison, **S.-J. Lee**, A. Kuvvarapu* (2015). A Policy Based Approach to Models at Runtime within Cyber-Physical Systems: A Case Study for Microgrids. *2015 International Conference on Software and Information Systems*, Las Vegas, NV, May 9-10. (Contribution: Writing - Draft preparation, review, editing; Supervision; Methodology)
 12. D.M. Young, T. Hawkins, W. Ingwersen, **S.-J. Lee**, G. Ruiz-Mercado, D. Sengupta, & R.L. Smith (2012). Designing Sustainable Supply Chains. *PRES 2012: 15th Conference on Process Integration, Modelling and Optimization for Energy Saving and Pollution Reduction (Chemical*

Engineering Transactions), Prague, Czech Republic, August 25-29, Vol. 29. (Contribution: Writing - Draft preparation, review, editing; Formal Analysis)

13. **S.-J. Lee** & J.S. Cooper (2008). Estimating Regional Material Flows for LCDs. *IEEE International Symposium on Electronics & the Environment 2008*, San Francisco, CA, May 19-23. (Contribution: Writing - Draft preparation, review, editing; Formal Analysis; Methodology; Conceptualization)
14. **S.-J. Lee**, J. Bae & J. Kim (2005). An Environmental and Economic Analysis of an E-Commerce Distribution System (translation), The 2005 *Third NexGen e-Business Conference*, Seoul, Korea, Nov.11. (Contribution: Writing - Draft preparation, review, editing; Formal Analysis; Methodology; Conceptualization)

Technical reports

1. **S.-J. Lee** et al. (2023). Advanced Building Construction Market Guidance Report: Scalable, High-Performance Residential New Construction and Retrofits, Advanced Building Construction 5
2. J. Sisolak, C. Benjamin, **S.-J. Lee** and D. Osborn (2008). Woodland Park Zoo Footprints. Prepared for the Program on the Environment, University of Washington.
3. **S.-J. Lee** (2008). Policies for Electronic Waste Management in Developing Countries: Case Study in China. Prepared for the College of the Environment, University of Washington.
4. J.S. Cooper and **S.-J. Lee** (2006). Plug Power GenSys Life Cycle Design Tool. Prepared for Plug Power.
5. J. Kim, J. Bae, **S.-J. Lee** (2005). Recycling Potential Index (RPI) of materials and parts in End-of-Life vehicles for Design for Recycling. Prepared for the Ford Motor Company.

Peer-reviewed conference abstracts (Oral and Poster presentations)

1. **S.-J. Lee**, J. Kim, G.-H. Lee, Y.W. Kim, Y. Hwang (2021) Chemical Flow Analysis of Ammonia in the Domestic Fertilizer Industry of South Korea. *U.S.-Korea Conference on Science, Technology and Entrepreneurship 2021*, Garden Grove, CA, December 15-18.
2. **S.-J. Lee** (2018) Carbon Impacts of a Transition to Electric Vehicles and Renewable Energy in Michigan. *U.S.-Korea Conference on Science, Technology and Entrepreneurship 2018*, Queens, NY, August 1-4.
3. J.-H. Hwang, J. Church, **S.-J. Lee**, & W.H. Lee (2017). Use of Microalgae for Advanced Wastewater Treatment and Sustainable Bioenergy Generation. *International Society for Industrial Ecology and International Symposium on Sustainable Systems and Technologies 2017*, Chicago, IL, June 25-29.
4. J.-H. Hwang, J. Church, **S.-J. Lee**, & W.H. Lee (2017). Use of Microalgae for Advanced Wastewater Treatment and Sustainable Bioenergy Generation. *2017 AEESP Research and Education Conference*, Ann Arbor, MI, June 20-22.
5. **S.-J. Lee** & J.S. Cooper (2016). The sustainability of regional e-waste management systems: Monitor technology case studies. *The 12th Biennial International Conference on Ecobalance*, Kyoto, Japan, October 3-6.

6. **S.-J. Lee** & J.S. Cooper (2016). The sustainability of regional e-waste management systems: Monitor technology case studies. *International Symposium on Sustainable Systems and Technologies 2016*, Phoenix, AZ, May 16-18.
7. **S.-J. Lee**, W.W. Ingwersen, T.R. Hawkins (2015). Life-Cycle Greenhouse Gas Impacts of Large-Scale Electric Vehicle Adoption in Southeast Michigan. *U.S.-Korea Conference on Science, Technology, and Entrepreneurship 2015*, Atlanta, GA, July 29-August 1.
8. **S.-J. Lee**, W.W. Ingwersen, T.R. Hawkins (2015). Potential environmental impacts of electric vehicle adoption in southeast Michigan. *2015 AEEESP Research and Education Conference*, New Haven, CT, June 13-16.
9. **S.-J. Lee**, W.W. Ingwersen, T.R. Hawkins (2015). Life-Cycle Greenhouse Gas Impacts of Large-Scale Electric Vehicle Adoption in Southeast Michigan. *International Symposium on Sustainable Systems and Technologies 2015*, Dearborn, MI, May 18-20.
10. A.V. Weisbrod, W.W. Ingwersen, M. Ceja, H. Cabezas, B. Demeke, T. Eason, R.L. Smith, D. Sengupta, E. Zanolli, M. Gausman, **S.-J. Lee**, C. Ma, B. Weber, M. Alvarez, J.C. Bare, J. Abraham, M.A. Gonzalez & G. Ruiz-Mercado (2015). Assessing product sustainability with integrated metrics: A Bounty® Case Study. *International Symposium on Sustainable Systems and Technologies 2015*, Dearborn, MI, May 18-20.
11. W. Ingwersen, A. Weisbrod, H. Cabezas, T. Eason, **S.-J. Lee**, C. Ma, B. Demeke, C. Henry, B. Weber, D. Sengupta, T. Hawkins & M. Ceja (2014) Land, Energy, Cost, Social License and System Order: Explaining the value of system-level metrics in product assessment. *International Symposium on Sustainable Systems and Technologies 2014*, Oakland, CA, May 18-21.
12. A. Weisbrod, J. Bare, M. Ceja, W. Ingwersen, D. Young, R. Smith, B. Demeke, B. Weber, **S.-J. Lee**, M. Gausman, D. Sengupta, J. Abraham, T. Hawkins, E. Zanolli, M. Alvarez, C. Ma, T. Eason, H. Cabezas, M. Gonzalez, G. Ruiz-Mercado & B. Armstrong (2013). A Government and Industry Application of LCA and Novel Sustainability Metrics: Part I and II. *SETAC North America 34th Annual Meeting*, Nashville, TN, November 17-21.
13. W. Ingwersen, A. Weisbrod, M. Ceja, D. Young, R. Smith, B. Demeke, B. Weber, **S.-J. Lee**, M. Gausman, D. Sengupta, J. Abraham, T. Hawkins, J. Bare, E. Zanolli, M. Alvarez, S. Quinn, X. Ma, T. Eason, H. Cabezas, M. Gonzalez, G. Ruiz-Mercado, B. Armstrong & C. Henry (2013). Tools for Sustainable Supply Chain Design Across Scales. *3rd International Congress on Sustainability Science & Engineering (ICOSEE) 2013*, Cincinnati, OH, August 11-15.
14. **S.-J. Lee**, T.R. Hawkins, W.W. Ingwersen & D. Young (2013). Exploring Best Practices for the Integration of Ecological Footprint with Life Cycle Assessment. *International Society of Industrial Ecology 2013*, Ulsan, South Korea, June 25-28.
15. X. Xue, **S.-J. Lee**, T.R. Hawkins, W.W. Ingwersen & R. Smith (2013). A Location-Specific Life Cycle Assessment and Ecological Footprint of Corn Production in the U.S. Midwest. *International Society of Industrial Ecology 2013*, Ulsan, South Korea, June 25-28.
16. W. Ingwersen, A. Weisbrod, M. Gausman, **S.-J. Lee**, T. Hawkins, J. Bare, K. Hart, D. Young, D. Sengupta, J. Abraham, E. Zanolli, D. Adams, R. Smith, G. Ruiz-Mercado, M. Gonzalez, B. Demeke, C. Ma, T. Eason, H. Cabezas & M. Ceja (2013). LCA models at the core of the sustainable supply

chain toolkit: A paper towel case study. *International Symposium on Sustainable Systems and Technologies 2013*, Cincinnati, OH, May 15-17.

17. **S.-J. Lee**, T.R. Hawkins & D. Young (2012). Environmental Impacts of Biofuels using an Ecological Footprint Approach. *US-Korea Conference 2012*, Los Angeles, CA, August 8-11.
18. **S.-J. Lee**, T.R. Hawkins & D. Young (2012). Supply Chain of Biofuels using an Ecological Footprint Approach. *IEEE International Symposium on Sustainable Systems and Technologies 2012*, Boston, MA, May 16-18.
19. **S.-J. Lee**, T.R. Hawkins & D. Young (2012). A Review of the Environmental Impact of Biofuels. *KSEA Korean Student Technical & Leadership Conference 2012*, Chicago, IL, March 16-18.
20. **S.-J. Lee** & J.S. Cooper (2011). Dynamic Assessment of Regional Electronic Waste Recycling Systems. *KSEA Young Generation Technical and Leadership Conference 2011*, Seattle, WA, January 7-9.
21. **S.-J. Lee** & J.S. Cooper (2010). Dynamic Models for the Assessment of Regional E-Waste Recycling Systems. *China-US Collaborative Workshop on Designing E-waste Material Flow Systems for Sustainable Economic Development*, Guangzhou, China, August 1-3.
22. **S.-J. Lee** & J.S. Cooper (2009). End-of-Life Flows of Computer Monitors in Seattle and the Estimation of Liquid Crystal Display Materials. *SISFUR Electronics Recycling Symposium*, Atlanta, GA, Oct. 23.
23. **S.-J. Lee** & J.S. Cooper (2009). Consumption and Recycling Dynamics of Information and Communications Technology (ICT): Case Study on Electronic Waste from Display Technologies. *US-Korea Conference 2009*, Raleigh, NC, July 16-19.
24. **S.-J. Lee**, M. Noon & J.S. Cooper (2008). Combining Regional Flow Analysis and Life Cycle Assessment: A LCD monitor case study. *Life Cycle Assessment VIII 2008 Conference*, Seattle, WA, September 30-October 2.
25. **S.-J. Lee** & J.S. Cooper (2008). Material Flow Estimation for End-of-Life LCDs. *US-Korea Conference 2008*, San Diego, CA, Aug.14-17.
26. **S.-J. Lee** & J.S. Cooper (2006). Life Cycle Design of Emerging Energy Generation Technologies. *InLCA/LCM 2006 Conference*, Washington, DC, October 4-6.
27. J. Kim, J. Bae & **S.-J. Lee** (2005). Recycling Potential Index (RPI) of materials and parts in End-of-Life vehicles for Design for Recycling. *International Society of Industrial Ecology 2005*, Stockholm, Sweden, June 12-15.

Invited Talks and Lectures

- Electronics, Robotics, & Automation Capstone Class, Centralia College, April 2022
- International Seminar on Resources Circulation and Eco Industrial Development Strategy, Inha University, Incheon, South Korea, August 2020
- The Korean Society for Life Cycle Assessment Conference, Jeju, South Korea, December 2017
- International Seminar on Environmental Risk and Safety Management Strategy, Inha University, Incheon, South Korea, August 2017

- “Six-Sigma Management and Lean Tools” California State University, Chico, Department of Mechanical and Mechatronic Engineering and Sustainable Manufacturing, Chico, CA, April 2016
- “Progress towards Clean and Sustainable Energy: Application of Life Cycle Environmental Impacts” Oakland University, Department of Mechanical Engineering, Rochester, MI, April 2016
- “Thin-Walled Pressure Vessels and Combined Loadings” York College of Pennsylvania, Department of Engineering and Computer Science, York, PA, February 2016
- “Introduction to Sustainability Science” Montclair State University, Department of Earth and Environmental Studies, Montclair, NJ, January 2016
- “Canadian Nuclear Waste: Friend or foe? – A fact-based discussion” Rotary Club of Flint, Flint, MI, December 2015
- “Doing Sustainability Right: Applications of Integrated Sustainability Metrics” International Environmental Engineering Conference (IEEC) 2015 (Keynote speaker), Busan, South Korea, October 2015
- “Doing Sustainability Right: Applications of Integrated Sustainability Metrics” Northeastern University, Department of Civil and Environmental Engineering, Boston, MA, June 2015
- “Sustainability” Communities First, Inc., Green Business Forum, Flint, MI, March 2015
- “Doing Sustainability Right: Applications of Integrated Sustainability Metrics” University of Michigan, Center for Sustainable Systems, School of Natural Resources and Environment, Ann Arbor, MI, March 2015
- “Introduction to Sustainability Indicators.” California Polytechnic State University, Natural Resources Management & Environmental Sciences Department, San Luis Obispo, CA, April 2014
- “Energy and Sustainability: A Systems-Based Life Cycle Perspective” University of Michigan-Flint, Department of Earth and Resource Science, Flint, MI, February 2014
- “The sustainability of e-waste management systems: monitor technology case study” Workshop for Industrial Ecology and Systems Thinking (WIEST), University of Ulsan, Ulsan, South Korea, June
- Singapore Institute of Manufacturing Technology, Planning and Operations Management Group, Singapore, May 2013
- “Sustainable Engineering: What it means and how it should be done” University of Dayton, Department of Mechanical and Aerospace Engineering, Dayton, OH, March 2013
- “The sustainability of regional e-waste management systems: data, assessment, and policies investigated through monitor technology case studies” U.S. Environmental Protection Agency, National Risk Management Research Laboratory, Cincinnati, OH, October 2011
- “Sustainability Benefits for LG” LG Electronics, Home Appliances Group, San Jose, CA, March 2011
- “Wanna be sustainable? Think Life Cycle” Korean-American Scientists and Engineers Association, Seattle-Washington Chapter Technical Seminar Series, Bellevue, WA, January 2011

- Samsung Heavy Industries, Ridgefield Park, NJ, October 2010
- “Processed-based Life Cycle Assessment” University of Washington, Environmental Science and Studies, Tacoma, WA, March 2010
- “University of Washington Zoo Footprints Project” University of Washington, Department of Mechanical Engineering, Seattle, WA, January 2010
- “University of Washington Zoo Footprints Project” University of Washington, Department of Mechanical Engineering, Seattle, WA, January 2009
- Samsung SDS, Energy and Environmental Consulting Group, Los Angeles, CA, January 2009

Funded and Submitted Grants

1. *Promoting Early Retention of STEM Students: The Achieving Change in our Communities through Equity and Student Success (ACCESS) in STEM Program*, Phase 3, National Science Foundation. Amount requested: \$2,000,000. Faculty associate with PI EC Cline, et al. Awarded 2026.
2. *Concept Paper: Electrochemical Recovery of High Energy Value Materials from Phosphogypsum Using Nanocomposite Electrodes*, Department of Energy, Advanced Research Projects Agency (ARPA-E). Amount requested: \$3,000,000. Co-PI with PI Lei Zhai and others (not selected).
3. *NSF EPIIC: Development of clean, high-yield additive manufacturing platform in partnership with Boeing*, National Science Foundation. Co-PI with Hee-Seok Kim (PI) and Heather Dillon (not selected).
4. *Planning Grant: Connecting Life-cycle assessment with End of life And consumer Needs (CLEAN) for Building Equipment, Responsible Design, Development, and Deployment of Technologies (ReDDDoT)*, National Science Foundation. Amount Requested: \$307,395. PI with co-PIs Heather Dillon and Jeff Walters (not selected).
5. *Impact Assessment Program Support Planning for embodied carbon associated with building materials*, U.S. Department of Energy. Award: \$69,560. Awarded 2022.
6. *Promoting Early Retention of STEM Students: The Achieving Change in our Communities through Equity and Student Success (ACCESS) in STEM Program, Phase 2*, National Science Foundation. Award: \$1,500,000. Faculty associate with PI EC Cline, and many others. Awarded 2021.
7. *Toolkits for End of Life Design in Residential Building Equipment*, U.S. Department of Energy. Award: \$596,135. Co-PI with Heather Dillon (PI) and Chrissi Antonopoulos (Finalist, but not selected).
8. *Eco- and Human Toxicity Impacts: A Comparative Study of Metropolitan Areas in the U.S., France and South Korea*, Global Innovation Fund, University of Washington. Amount Requested: \$10,000. Awarded 2021.
9. *Building an Entrepreneurial Mindset (EM) Concept Map Toolbox for Course and Program Evaluation*, Kern Family Foundation. Senior Investigator with co-PIs Heather Dillon and Cheryl Bodnar. Award: \$72,162. Awarded 2020.
10. *In-situ Visible Light Responsive Freshwater Harmful Algal Blooms (HABs) Control and Mitigation Technology*, Environmental Protection Agency. Co-PI with PI Woo Hyoung Lee (not selected).

11. *Microsensor-based Direct Investigation of Lead Leaching from Lead Plumbing Sources in Corrosive Water and its Sustainable Mitigation Strategies*, Provost's Research Fund, University of Michigan-Flint. Amount requested: \$9,810. Awarded 2016.
12. *A Community Aware Virtual Learning Infrastructure*, Improving Undergraduate STEM Education: Education and Human Resources (IUSE: EHR), National Science Foundation. Co-PI with PI Mark Allison (not selected).
13. *Collaborative Research: A Novel Symbiotic Micro-Algae IFAS (MAIFAS) System for Nutrient Removal and Feedstock Generation for Energy Recovery*, CBET – Environmental Engineering, National Science Foundation. PI with co-PI Woo Hyoung Lee (not selected).
14. *Municipal Solid Waste Generation Forecasting and Analysis in Michigan*, Environmental Research and Education Foundation. Co-PI with PI Farnaz Ghazi Nezami (not selected).
15. *Proposal for design of a new course: Sustainable Design of Products and Systems*, Course Design Fellowship, Thompson Center for Learning & Teaching, University of Michigan-Flint. Amount requested: \$3,000. Awarded Spring 2015.
16. *Energy and Environmental Implications of Large-Scale Electric Vehicle Adoption: A Scenario-Based Life Cycle Assessment Study of the Future of Advanced Transportation in Michigan*, Research and Creative Activity Award, University of Michigan-Flint. Amount requested: \$15,515. Awarded January 2015.
17. Software Grant, University of Michigan-Flint. Amount requested: \$5,745. Awarded January 2015.
18. Graduate Research Grant, Ford Motor Company. Amount requested \$2,500. Awarded January 2005.

Students Mentored

University of Washington Tacoma

1. Kamran Shirbacheh, BSME (2027)
2. Ryan Hancock, BSEE (2026)
3. Angelina James, BSME (2026)
4. Amy Keller, BSME (2025)
5. Ryan Lindbom, BSME (2024)
6. Kara Nichols, BSME (2024)
7. Dennis Tanner, BSME (2024)
8. Paris Weber, BSME (2023)

University of Michigan-Flint

1. Mackenzie Benning, BSME (2021)
2. Joseph Kessler, BSME (2021)
3. Andrew Barron, BSME (2020)
4. Tamim Reza, BSME (2018)
5. Michael Nazarian, BS Energy and Sustainable Systems (2017)

6. Anil Kumar Kuvvarapu, MS CSIS (2016)
7. Paul Mattern, BS Energy and Sustainable Systems (2016)

Awards and Honors

- Best Paper Competition winner, Artificial Intelligence and Machine Learning, International Mechanical Engineering Congress & Exhibition (2024)
- Golden Apple (Recognition for teaching excellence), University of Michigan-Flint, Winter 2019, Fall 2018, Winter 2018, Fall 2017, Winter 2017, Fall 2016, Winter 2016 and Fall 2015
- International Travel Award (International Conference on Resource Sustainability), Office of Research and Sponsored Programs, University of Michigan-Flint (\$1,000), 2018
- Dr. Lois Matz Rosen Junior Faculty Excellence in Teaching Award, University of Michigan-Flint, 2017
- International Travel Award (The Korean Society for Life Cycle Assessment Conference), Office of Research and Sponsored Programs, University of Michigan-Flint (\$1,500), 2017
- Excellence in Review Award 2016, Resources, Conservation & Recycling (Elsevier), (One of 25 awardees worldwide)
- International Travel Award (EcoBalance 2016), Office of Research and Sponsored Programs, University of Michigan-Flint (\$1,500), 2016
- NSF Travel Grant, 2016 Summit for Transforming STEM Teaching in Higher Education, Boise State University, April 2016
- Scientists and Engineers Early-Career Development (SEED) Workshop Travel Grant, Korean American Scientists and Engineers Association (KSEA), 2015
- International Travel Award (IEEC 2015), Office of Research and Sponsored Programs, University of Michigan-Flint (\$2,000), 2015
- Excellent Oral Presentation Certificate, International Conference on Software and Information Systems (co-author), 2015
- Michigan Road Scholar, Office of State Outreach within the Office of the Vice President for Government Relations, University of Michigan, 2015
- Symposium on Industrial Ecology for Young Professionals (SIEYP) Travel Grant, International Society for Industrial Ecology, 2013
- Scientists and Engineers Early-Career Development (SEED) Workshop Travel Grant, Korean American Scientists and Engineers Association (KSEA), 2013
- 2nd Place Poster Award, KSEA Korean Student & Technical Leadership Conference, 2012
- Graduate Student Scholarship, Korea-US Science Cooperation Center (KUSCO) & KSEA, 2008
- Pratt & Whitney Award for Outstanding Senior Design Project in Mechanical Engineering, Boston University, 2003
- Dean's List, College of Engineering, Boston University

Service

University of Washington Tacoma

University

Executive Director of the Office of Undergraduate Education Search Committee, 2026
Student Experience Project, Facilitator, 2025-2026
Faculty Representative, Husky Sustainability Fund, 2025-present
Cohort Mentor and Faculty Associate, ACCESS in STEM, Fall 2021-present
Faculty Representative, UW Tacoma Sustainability Committee, 2021-present
Member, Scaffolded Majors Exploration Subcommittee, 2024-2025
Faculty Council on Tri-Campus Policy, 2021-2024
Participant, Faculty Learning Communities (AAPI THRIVE), Spring 2023
Panelist, New Faculty Orientation, 2021
Participant, Faculty Learning Communities (Race and racism in the classroom), Spring 2021
Husky 100 Reviewer, 2021

Mechanical Engineering and School of Engineering and Technology

Co-Chair, Mechanical Engineering Program, 2026-present
Member, SET Faculty Council, 2025-present
Chair, Mechanical Engineering Lab Manager Hiring Committee, 2024-25
Chair, Recruiting and Outreach Committee, Mechanical Engineering, 2024-present
Member, Equipment and Computing Committee, Mechanical Engineering, 2024-present
Member, Freshman Direct Working Committee, Fall 2022- present
Member, Justice, Equity, Diversity and Inclusion (JEDI) Council, Fall 2020-present
Member, Mechanical Engineering Curriculum Committee, Fall 2020-present
Organizer and Facilitator, SET Teaching Workshop 2021-22
Member, Program Chair and Tenure-Track Faculty Search Committee, Civil Engineering, 2020-21

University of Michigan-Flint

University

Women's Commission, University of Michigan-Flint, Fall 2017-Winter 2020
Faculty Affiliate, International and Global Studies Program, Fall 2015-Winter 2020
Faculty Affiliate, Women and Gender Studies Program, Fall 2015-Winter 2020
Faculty Affiliate, Energy Institute, University of Michigan, Fall 2014-Winter 2020
Faculty Affiliate, Graham Sustainability Institute, University of Michigan, Fall 2014-Winter 2020
Common Read Kickoff Panelist, Fall 2018
Center for the Education of Women Scholarship Committee, Winter 2018

Summer Undergraduate Research Experience (SURE) Ad Hoc Review Committee, Winter 2018

Sullenger Dialogues Moderator and Critical Issues Forum introduction (Elizabeth Kolbert – How Can we Save Our Planet?), University of Michigan-Flint, April 2017

Committee on the Economic Status of the Faculty, University of Michigan-Flint, Winter 2017

College

Strategic Planning Steering Committee, College of Arts and Sciences, Fall 2017-Winter 2018
Tenure-track Faculty Search Committee, Department of Chemistry and Biochemistry, 2016-2017

Tenure-track Faculty Search Committee, Department of Biology, 2016-2017

LEO Lecturer Review Committee, College of Arts and Sciences, Winter 2016

Tenure-track Faculty Search Committee, Department of Chemistry and Biochemistry, 2015-2016

Summer Interim Committee, College of Arts and Sciences, Summer 2015

Department and Program

Accreditation Board for Engineering and Technology (ABET) Co-Coordinator, Winter 2019-Winter 2020

Ralph M. and Emmalyn E. Freeman Scholarship Committee, Chair, Department of Computer Science, Engineering and Physics, Winter 2019

Ralph M. and Emmalyn E. Freeman Scholarship Committee, Department of Computer Science, Engineering and Physics, Winter 2018

Ad-hoc Graduate Admissions Committee, Mechanical Engineering, Fall 2017-Winter 2020

Engineering Industrial Advisory Board (Chair), Engineering program, Winter 2015-Winter 2020

Professional Development Committee, Department of Computer Science, Engineering and Physics, Winter 2016

Tenure-track Faculty Search Committee, Mechanical Engineering, 2015-2016

Program Revision Committee, Department of Geography, Planning, and Environment, 2015-2016

David Zick Scholarship Committee, Department of Computer Science, Engineering and Physics, Winter 2015

Professional

Editor

Special Issue, "Innovation in Life Cycle Sustainability Assessment of Emerging Technologies," Sustainability (MDPI), 2020-2022

Invited Referee

Review panels

National Science Foundation, Graduate Research Fellowship Program (GRFP), January 2021

National Science Foundation, Environmental Sustainability Program, Chemical, Bioengineering, Environmental and Transport Systems (CBET), April 2017

National Science Foundation, Environmental Sustainability Program, Chemical, Bioengineering, Environmental and Transport Systems (CBET), March 2016

National Science Foundation, Engineering, East Asia and Pacific Summer Institutes for U.S. Graduate Students (EAPSI), December 2015

Journal manuscripts

AGU Books (Wiley)

Energies (MDPI)

Environments (MDPI)

Environmental Engineering Science (Mary Ann Liebert, Inc., Official Journal of the Association of Environmental Engineering & Science Professors)

Environmental Science & Technology (ACS Publications)

Frontiers of Environmental Science and Engineering (Springer)

Integrated Environmental Assessment and Management (Wiley)

International Journal of Environmental Research and Public Health (MDPI)

International Journal of Sustainability in Higher Education (Emerald Publishing)

International Journal of Sustainable Transportation (Taylor & Francis)

Journal of Cleaner Production (Elsevier)

Journal of Environmental Management (Elsevier)

Journal of Industrial Ecology (Wiley)

Journal of Material Cycles and Waste Management (Springer)

Journal of the Science of Food and Agriculture (Wiley)

Resources, Conservation & Recycling (Elsevier)

Science of the Total Environment (Elsevier)

Sustainability (MDPI)

Waste Management (Elsevier)

Water (MDPI)

Conference proceedings

American Society of Mechanical Engineers (ASME) 22nd Annual Design for Manufacturing and Life Cycle (DFMLC) Conference 2017

International Conference on Sustainability, Technology and Education (STE), Melbourne, Australia, December 6-8, 2016

American Society of Mechanical Engineers (ASME) 21st Annual Design for Manufacturing and Life Cycle (DFMLC) Conference 2016

International Conference on Sustainability, Technology and Education (STE),
Florianopolis, Santa Catarina, Brazil, November 30–December 2, 2015
Proceedings of the International Symposium on Sustainable Systems & Technologies
(ISSST) 2015

International Conference on Sustainability, Technology and Education (STE), New
Taipei City, Taiwan, December 10-12, 2014

International Conference on Sustainability, Technology and Education (STE), Kuala
Lumpur, Malaysia, November 29-December 1, 2013

Conference abstracts

International Symposium on Sustainable Systems & Technologies (ISSST), Pittsburgh,
PA, June 16-18, 2025

International Symposium on Sustainable Systems & Technologies (ISSST), Portland, OR,
June 25-27, 2019

International Conference on Resource Sustainability, Beijing, China, June 27-29, 2018

LCA XIV Conference, San Francisco, CA, October 6-8, 2014

International Symposium on Sustainable Systems & Technologies (ISSST), Oakland, CA,
May 18-21, 2014

LCA XIII Conference, Orlando, FL, September 30-October 3, 2013

Program/Scientific Committee Member

International Conference on Sustainability, Technology and Education (STE), Lisbon,
Portugal, July 23-25, 2025

International Conference on Resource Sustainability, Beijing, China, June 27-29, 2018

International Conference on Sustainability, Technology and Education (STE), Sydney,
Australia, December 11-13, 2017

International Conference on Sustainability, Technology and Education (STE), Melbourne,
Australia, December 6-8, 2016

International Environmental Engineering Conference, Busan, South Korea, 28-30 Oct, 2015

International Conference on Sustainability, Technology and Education (STE), Florianopolis,
Santa Catarina, Brazil, November 30–December 2, 2015

International Conference on Sustainability, Technology and Education (STE), New Taipei
City, Taiwan, December 10-12, 2014

LCA XIV Conference, San Francisco, CA, October 6-8, 2014

International Conference on Sustainability, Technology and Education (STE), Kuala
Lumpur, Malaysia, November 29-December 1, 2013

Session Chair

U.S.-Korea Conference on Science, Technology and Entrepreneurship 2018, 1-4 August,
2018

The Korean Society for Life Cycle Assessment Conference, Jeju City, South Korea, 4-5 Dec, 2017

The 12th Biennial International Conference on EcoBalance, Kyoto, Japan, 3-6 Oct, 2016
(+ Poster session judge) International Symposium on Sustainable Systems & Technologies (ISSST), Phoenix, AZ, 16-18 May, 2016

International Environmental Engineering Conference, Busan, South Korea, 28-30 Oct, 2015
(+ Poster session judge) International Symposium on Sustainable Systems & Technologies (ISSST), Dearborn, MI, 18-20 May, 2015

American Society for Engineering Education (ASEE) North Central Section Conference, Cincinnati, OH, April 17-18, 2015

International Symposium on Sustainable Systems & Technologies (ISSST), Cincinnati, OH, May 15-17, 2013
(+ Symposium organizer) “Environmental Impacts of Electronic Technologies, Products, and Processes: The Search for Sustainable Electronics”, 246th American Chemical Society (ACS) National Meeting & Exposition, Division of Environmental Chemistry, Indianapolis, IN, September 8-12, 2013

Subject Matter Expert

IEEE 1680.4 Standard for Environmental Assessment of Servers, 01/2014-10/2015

Judge

U.S. EPA “Tracking Molecular Components of Electronics” Challenge, 2012

Media

“[The Best Swedish Dishcloth](#),” Ellen Airhart, Wirecutter, A New York Times Company, October 24, 2024.

“[American and Finnish universities collaborate to advance the Sustainable Development Goals](#),” University of Washington, July 22, 2024.

“[Americans Are Weirdly Obsessed With Paper Towels](#),” Joe Pinsker, The Atlantic, December 10, 2018.

“[University scholars make 16th annual learning tour of Michigan](#),” The University Record, May 12, 2015.

“UM-Flint professor says Michigan will be cleaner, greener in 10 years,” ABC12, March 18, 2015.

“[UM-Flint Experts Discuss Falling Gasoline Prices](#),” University of Michigan-Flint News, January 14, 2015.

Certifications

- Certified Faculty Peer Observation and Feedback Coach, University of Michigan-Flint
- Engineer-in-Training (EIT), State of Massachusetts, National Council of Examiners for Engineering and Surveying

- LEED Green Associate, Green Building Certification Institute (GBCI), 2011-2013
- Life Cycle Assessment Certified Professional, American Center for Life Cycle Assessment, 2008-2011

Professional Development (Research and Teaching)

- Student Experience Project. UWT, 2025-26
- Student-Centered Research Experience. UWT, 2025-26
- Engineering Unleashed Faculty Workshop - Unraveling the Value Tensions in Sustainability, Cincinnati, OH, June 9-12, 2025
- KEEN Crescendo of Entrepreneurially Minded Learning workshop, UWT, January 17, 2025
- Finnish-American Research and Innovation Accelerator (FARIA) Sustainable Development Goals (SDG) Workshop, Finland, June 3-7, 2024
- Building Beloved Communities Through Mindful Communication, UWT, March 10, 2023
- KEEN National Conference, Atlanta, GA, February 2-4, 2022
- Engineering Unleashed Faculty Workshop – StoryMakers, Denver, CO, August 10-12, 2022
- Equity by Design: Redshirting with the STARS Workshop (NSF-sponsored national workshop), University of Washington, June 16-17, 2022
- Strengthening Educational Excellence through Diversity (SEED) Teaching Institute, UWT, August-September 2021
- iTech Fellows Program, UWT, March-August 2021
- Open Educational Resources (OER) Workshop, UWT, June 2021
- Fundamentals of Program Assessment Workshop, Accreditation Board for Engineering and Technology, Inc. (ABET), June 15-17, 2021
- Teaching Technology Fellows Institute (TTFI), University of Washington, March-June 2021
- Infusing Sustainability into the Curriculum (ISIC) faculty development workshop, VentureWell & Engineering Unleashed, 2020-2021
- Transforming STEM Higher Education, Association of American Colleges & Universities, Chicago, IL, November 2019
- ABET Symposium, Dallas, TX, April 10-13, 2019
- Research from the Field of Writing and Strategies for Helping Students Maintain Academic Integrity, University of Michigan-Flint, Fall 2018
- What Faculty Can Really Do to Promote Student Learning, Oakland University, Spring 2018
- Faculty Peer Observation & Coaching Workshop, University of Michigan-Flint, Spring 2018
- Original Lilly Conference on College Teaching, Oxford, OH, 2017
- Summer Strategic Plan (Workshop), University of Michigan-Flint, Winter 2017
- College of Arts and Sciences Fridays for Success (Student Success Advocate), University of Michigan-Flint, Winter 2017
- Korean-American Scientists and Engineers Association (KSEA) Scientists and Engineers Early-Career Development Workshop, Vienna, VA, 2016

- Writing Your Philosophy of Teaching Statement, University of Michigan-Flint, Fall 2016
- Pre-Convocation Workshop (Why Failure is Essential to Student Learning), University of Michigan-Flint, Fall 2016
- Summit for Transforming STEM Teaching in Higher Education (NSF-sponsored national workshop), Boise State University, 2016
- NSF-AEESP Grand Challenges Workshop, Rice University, Houston, TX, 2016
- KSEA Scientists and Engineers Early-Career Development Workshop, Vienna, VA, 2015
- Foundations of Academic Advising Workshop Series, University of Michigan-Flint, Fall 2015
- Building Bridges & Scaffolding Success (Forum), University of Michigan-Flint, Winter 2015
- Faculty Peer Observation and Feedback Workshop, University of Michigan-Flint, Fall 2014
- Debunking the Tenure Myths (Workshop), University of Michigan-Flint, Fall 2014
- Breaking Through the Barriers to Writing Scholarly Publications and Proposals (Workshop), University of Michigan-Flint, Fall 2014
- Michigan Engineering-Community Colleges Association Annual Meeting, Oakland University, Rochester, MI, 2014
- Grant-Writing Workshop Series, University of Cincinnati, 2014
- KSEA Scientists and Engineers Early-Career Development Workshop, Atlanta, GA, 2013

Memberships in Professional Organizations

American Society for Engineering Education (ASEE)

Association of Environmental Engineering and Science Professors (AEESP)

American Society of Mechanical Engineers (ASME)

International Society of Industrial Ecology (ISIE)

Korean-American Scientists and Engineers Association (KSEA)