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EDUCATION

Ph.D., Civil Engineering, University of Toronto, Toronto, Canada, November 2007
M.S.E., Chemical Engineering, University of Michigan, Ann Arbor, MI, USA, April 1998
B.A.Sc., Department of Chemical Engineering, University of Toronto, Toronto, Canada, May 1995

APPOINTMENTS AND PROFESSIONAL PREPARATION

Visiting Associate Professor, Faculty of Civil & Environmental Engineering, Technion – Israel Institute of Technology	October 2016 – present
Associate Professor, Department of Civil, Environmental, and Architectural Engineering, Drexel University	September 2014-present
Assistant Professor, Department of Civil, Environmental, and Architectural Engineering, Drexel University	January 2009-August 2014
Postdoctoral Scholar, Energy and Resources Group 2008 University of California, Berkeley	October 2007-December
Research Associate, Yale University 2003 School of Forestry and Environmental Studies	October 2000-December

PUBLICATIONS:

Articles published in refereed journals: h-index 18; Total citations 1314 (Web of Science)

1. Adler, P.R., Spatari, S., D'Ottone, F., Vazquez, D., Peterson, L., Del Grosso, S.G., Baethgen, W.E., *Global Change Biology-Bioenergy*, **2016**, (in review).
2. Liu, W., Wang, J., Hartley. D.S., Spatari, S, Volk, T.A., Richard, T.L., Economic and Life Cycle Analyses of Biomass Utilization for Bioenergy and Bioproducts, Biofpr, **2016** (in review).
3. Mohamad-Kenan, A.R., Alam, A., Foti, R., Gurian, P., Spatari, S., Hatzopoulou, M., Strategies to achieve deep reductions in metropolitan transportation GHG emissions: The case of Philadelphia, *Transportation Planning and Technology*, **2016**, (in review).
4. Fertitta-Roberts, C., Spatari, S., Grantz, D.A., Jenerette, D.G. Tradeoffs across productivity, carbon intensity, and pollutant loads from second generation sorghum bioenergy, *Global Change Biology-Bioenergy*, **2016**, (in review).
5. Na, S., Nguyen, L., Spatari, S., Hsuan, Y.G., Effects of recycled HDPE and nanoclay on stress crack resistance of HDPE through correlating Jc with slow crack growth, *Polymer Engineering & Science* **2016,** (in review)
6. Nguyen, L., Hsuan, Y.G., Spatari, S. Life Cycle Economic and Environmental Implications of Pristine High Density Polyethylene and Sustainable Materials in Drainage Pipe Applications, *J. Polym. Environ.* **2016**, DOI 10.1007/s10924-016-0843-y. IF=1.969; Citations=0, *in press*.
7. Marcellus-Zamora, K. A.; Gallagher, P. M.; Spatari, S.; Tanikawa, H., Estimating Materials Stocked by Land-Use Type in Historic Urban Buildings Using Spatio-Temporal Analytical Tools. *Journal of Industrial Ecology* **2016,** *20*, (5), 1025-1037, DOI: 10.1111/jiec.12327. IF=3.227; Citations=4.
8. Hums, M. E.; Cairncross, R. A.; Spatari, S., Life-Cycle Assessment of Biodiesel Produced from Grease Trap Waste. *Environmental Science & Technology* **2016,** *50*, (5), 2718-2726, DOI: 10.1021/acs.est.5b02667. IF=5.481; Citations=2.

9. Na, S.; Spatari, S.; Hsuan, Y.G., Fracture characterization of recycled high density polyethylene/nanoclay composites using the essential work of fracture concept. *Polymer Engineering & Science* **2016,** *56*, (2), 222-232, doi: 10.1002/pen.24250. IF=1.52; Citations=1.
10. Ciliberti, C., Jordaan, S.M., Smith, S.V., Spatari, S. A Life Cycle Perspective on Land Use and Project Economics of Electricity from Wind and Anaerobic Digestion, *Energy Policy* **2016**, 89, 52-63, doi:10.1016/j.enpol.2015.11.015. IF=3.045; Citations=0.
11. Pourhashem, G., Adler, P.R., Spatari, S., Time Effects of Climate Change Mitigation Strategies for Second Generation Biofuels and Co-products with Temporary Carbon Storage, *J. Cleaner Production* **2016**, 112, Part 4, 2642-2653. DOI:10.1016/j.jclepro.2015.09.135. IF=4.959; Citations=2.
12. Adler, P. R.; Mitchell, J. G.; Pourhashem, G.; Spatari, S.; Del Grosso, S. J.; Parton, W. J., Integrating biorefinery and farm biogeochemical cycles offsets fossil energy and mitigates soil carbon losses. *Ecological Applications* **2015,** *25*, (4), 1142-1156. IF=4.093; Citations=0.
13. Na, S.; Spatari, S.; Hsuan, Y. G., Fracture characterization of pristine/post-consumer HDPE blends using the essential work of fracture (EWF) concept and extended finite element method (XFEM). *Engineering Fracture Mechanics* **2015,** *139*, (0), 1-17. IF=1.662; Citations=1.
14. Keedy, J.; Prymak, E.; Macken, N.; Pourhashem, G.; Spatari, S.; Mullen, C. A.; Boateng, A. A., Exergy Based Assessment of the Production and Conversion of Switchgrass, Equine Waste, and Forest Residue to Bio-Oil Using Fast Pyrolysis. *Industrial & Engineering Chemistry Research* **2015,** *54*, (1), 529-539. IF=2.235; Citations=2.
15. Nguyen, L.; Cafferty, K.; Searcy, E.; Spatari, S., Uncertainties in Life Cycle Greenhouse Gas Emissions from Advanced Biomass Feedstock Logistics Supply Chains in Kansas. *Energies* **2014,** *7*, (11), 7125-7146. IF=2.072; Citations=4.
16. Pourhashem, G.; Adler, P.R.; McAloon, A. J.; Spatari, S., Cost and greenhouse gas emission tradeoffs of alternative uses of lignin for second generation ethanol. *Environmental Research Letters* **2013,** *8*, (2), 025021. IF=3.906; Citations=9.
17. Pourhashem, G.; Spatari, S.; Boateng, A. A.; McAloon, A. J.; Mullen, C. A., Life Cycle Environmental and Economic Tradeoffs of Using Fast Pyrolysis Products for Power Generation. *Energy & Fuels* **2013,** *27*, (5), 2578-2587. IF=2.733; Citations = 10.
18. Gallagher, P. M.; Spatari, S.; Cucura, J., Hybrid life cycle assessment comparison of colloidal silica and cement grouted soil barrier remediation technologies. *Journal of Hazardous Materials* **2013,** *250–251*, (0), 421-430. IF=4.331; Citations=3.
19. Spatari, S.; Aktan, A. E., Asset management in civil engineering. *Structure and Infrastructure Engineering* **2012,** *9* (4), 295-296. IF=0.954; Citations=2.
20. De Sousa, M. R. C.; Montalto, F. A.; Spatari, S., Using Life Cycle Assessment to Evaluate Green and Grey Combined Sewer Overflow Control Strategies. *Journal of Industrial Ecology* **2012,** *16* (6), 901-913. IF=2.713; Citations=18.
21. Wilson, T. O.; McNeal, F.M.; Spatari, S.; G. Abler, D.; Adler, P. R., Densified Biomass Can Cost-Effectively Mitigate Greenhouse Gas Emissions and Address Energy Security in Thermal Applications. *Environmental Science & Technology* **2011,** *46*, (2), 1270-1277. IF=5.481; Citations=9.
22. Spatari, S.; Yu, Z.; Montalto, F. A., Life cycle implications of urban green infrastructure. *Environmental Pollution* **2011**, *159*, (8-9), 2174-2179. IF=3.902; Citations=35.
23. Stadel, A.; Eboli, J.; Ryberg, A.; Mitchell, J.; Spatari, S., Intelligent Sustainable Design: Integration of Carbon Accounting and Building Information Modeling. *Journal of Professional Issues in Engineering Education and Practice* **2011,** *137*, (2), 51-54. IF=0.44; Citations=15.
24. Dilworth, R.; Stokes, R.; Weinberger, R.; Spatari, S., The Place of Planning in Sustainability Metrics for Public Works: Lessons From the Philadelphia Region. *Public Works Management & Policy* **2011,** *16*, (1), 20-39. IF=N.A.
25. Spatari, S.; MacLean, H. L., Characterizing Model Uncertainties in the Life Cycle of Lignocellulose-Based Ethanol Fuels. *Environmental Science & Technology* **2010,** *44*, (22), 8773-8780. IF=5.481; Citations=31.
26. Yeh, S.; Jordaan, S. M.; Brandt, A. R.; Turetsky, M. R.; Spatari, S.; Keith, D. W., Land Use Greenhouse Gas Emissions from Conventional Oil Production and Oil Sands. *Environmental Science & Technology* **2010,** *44*, (22), 8766-8772. IF=5.481; Citations=28.

27. Spatari, S., Bagley, D.M., MacLean, H.L., Life cycle evaluation of emerging lignocellulosic ethanol conversion technologies, *Bioresource Technology*, **2010**, 101: 654–667. IF=5.039; Citations=111.
28. MacLean, H.L. and Spatari, S., The Contribution of Process Enzymes and Process Chemicals to the Life Cycle of Ethanol, *Environ. Res. Lett.* **2009**, 4:1-10. IF=4.090; Citations =44.
29. McIntyre, J., Spatari, S., MacLean, H.L., Environmental Implications of Closing the Concrete Loop, *Journal of Infrastructure Systems,* **2009,** 15(4): 361-370. IF=0.98; Citations=6.
30. Spatari, S., Zhang, Y., MacLean, H.L. (2005). Life Cycle Assessment of Switchgrass and Corn Stover-Derived Ethanol Fueled Automobiles. *Environ. Sci. Technol.*, 39(24):9750-9758. IF=5.481; Citations =163.
31. Spatari, S.**,** Bertram, M., Gordon, Robert B., Henderson, K., Graedel, T.E. (2005) Twentieth century copper flows in North America: A dynamic analysis. *Ecological Economics*. 54:37-51. IF=2.517; Citations=106.
32. Bjorn, A., Declerq-Lopez, L., Spatari, S., MacLean, H.L. (2005). Decision Support for Sustainable Development using a Canadian Economic Input-Output Life Cycle Assessment Model. *Can. J. Civ. Eng*. 32:16-29. IF=0.47; Citations=11.
33. Graedel, T. E., Van Beers, D., Bertram, M., Fuse, K., Gordon, R.B., Gritsinin, A., Harper, E.M., Kapur, A., Klee, R.J., Lifset, R., Memon, L., and Spatari, S. (2005). The Multilevel Cycle of Anthropogenic Zinc. *J. Industrial Ecology*, 9(3):67-90. IF=2.713; Citations =85.
34. Graedel, T.E., van Beers, D., Bertram, M., Fuse, K., Gordon, R.B., Gritsinin, A., Kapur, A. Klee, R., Lifset, R.J., Memon, L., Rechberger, H., Spatari, S., Vexler, D. (2004). Multilevel cycle of anthropogenic copper. *Environ. Sci. Technol.*, 38:1242-1252. IF=5.481; Citations =141.
35. Graedel, T.E., Bertram, M., Kapur, A., Reck, B., Spatari, S. (2004). Exploratory data analysis of the multi-level anthropogenic copper cycle. *Environ. Sci. Technol.*, 38:1253-1261. IF=5.481; Citations =30.
36. Vexler, D.; Bertram, M.; Kapur, A.; Spatari, S.; Graedel, T. E., The contemporary Latin American and Caribbean copper cycle: 1 year stocks and flows. *Resources Conservation and Recycling* **2004,** 41, (1), 23-46. IF=2.692; Citations=22.
37. Van Beers, D., Bertram, M., Fuse, K., Spatari, S., Graedel, T.E. (2004). The contemporary Oceania zinc cycle: one-year stocks and flows. *J. Mater. Cycles Waste Mgt.* 6:125–141. IF=0.831; Citations=4.
38. Gordon, R.B., Lifset, R. J., Bertram, M., Reck, B., Spatari, S., Graedel, T.E. (2004). Where Is All the Zinc Going? The Stocks and Flows Project, Part 2. *JOM* 56(1):24-29. IF=1.401; Citations=9.
39. Bertram, M., Graedel, T.E., Fuse, K., Gordon, R., Lifset, R., Rechberger, H., Spatari, S. (2003). The Copper Cycles of European Countries. *Reg. Environ. Change*. 3(4):119-127. IF=2.260; Citations=4.
40. Gordon, R.B., Graedel, T.E., Bertram, M., Fuse, K, Lifset, R., Rechberger, H., Spatari, S. (2003). The characterization of technological zinc cycles. *Resour., Conserv. Recycl*. 39:107-135. IF=2.692; Citations=48.
41. Spatari, S.**,** Bertram, M., Fuse, K., Shelov, E., Graedel, T.E. (2003). The contemporary European zinc cycle: One-year stocks and flows. *Resour., Conserv. Recycl*., 39:137-160. IF=2.692; Citations=49.
42. Van Beers, D., Bertram, M., Fuse, K., Spatari, S., Graedel, T.E. (2003). The contemporary African zinc cycle: One-year stocks and flows. *African J. of Env. Ass. & Mgt.* 7:21–40. IF=N.A.; Citations=10.
43. Van Beers, D., Bertram, M., Fuse, K., Spatari, S., Graedel, T.E. (2003). The contemporary African copper cycle: one year stocks and flows. *J.S. Afr. Inst. Min. Metal.*, 103:147-162. IF=0.121; Citations=22.
44. Kapur, Bertram, M., Spatari, S., Fuse, K., Graedel, T.E. (2003). The contemporary copper cycle of Asia, *J. Mater. Cycles Waste Mgt.* 5:143–156. IF=0.831; Citations=19.
45. Lifset, R.J., Gordon, R.B., Graedel, T.E., Spatari, S., Bertram, M. (2002). Where has all the copper gone?: The stocks and flows project, Part 1. *JOM*. 54(10):21-26. IF=1.401; Citations=37.
46. Graedel, T.E., Bertram, M., Fuse, K., Gordon, R.B., Rechberger, H., and Spatari, S. The contemporary European copper cycle: The characterization of technological copper cycles. *Ecol. Econ.* **2002**, 42: 9-26. IF=2.517; Citations=66.
47. Spatari, S.**,** Bertram, M., Fuge, D., Graedel, T.E., Rechberger, H. The contemporary European copper cycle: One-year stocks and flows. *Ecol. Econ.* **2002**, 42:27-42. 2.517; Citations=87.
48. Bertram, M., Graedel , T.E., H. Rechberger, H., Spatari, S. The contemporary European copper cycle: The waste management subsystem. *Ecol. Econ.* **2002**, 42:43-57. IF=2.517; Citations=92.

49. Spatari, S., Betz, M., Florin, H., Baitz, M., and Faltenbacher, M. Using GaBi 3 to Perform Life Cycle Assessment and Life Cycle Engineering. *Int. J. LCA* **2001**, 6(2):81-84. IF=3.089; Citations=2.
50. Saur, K.; Fava, J. A.; Spatari, S., Life cycle engineering case study: Automobile fender designs. *Environmental Progress* **2000,** *19*, (2), 72-82. IF=0.92; Citations=19.
51. Keoleian, G.A., Spatari, S., Beal, R., Stephens, R.D., Williams, R. (1998). Application of Life Cycle Inventory Analysis to Fuel Tank System Design. *Int. J. LCA* **1998**,3(1):18-28, DOI:10.1007/BF02978446. IF=3.089; Citations=17.

Refereed Contributions (conference papers)

52. Na, S., Nguyen, L., Spatari, S., Hsuan, Y.G. "Evaluating the effect of nanoclay and recycled HDPE on stress cracking in HDPE using J-integral approach" ANTEC 2016, May 2016. **Winner of the Dr. Myer Ezrin best paper award.**
53. Na, S., Lau, A.C.W., Spatari, S., Hsuan, Y.G., 2013. *Application of extended finite element method to determine the plane-strain essential work of fracture of polyethylene*, ANTEC 2013, April 21-24, Cincinnati, OH. **Winner of the Dr. Myer Ezrin best paper award.**
54. Cordi, A.S., Gallagher, P.M., and Spatari, S., 2013. "Environmental life cycle performance of recycled materials for sustainable slope engineering." Geo-Congress 2013: Stability and Performance of Slopes and Embankments III, pp. 1490-1501.
55. Spatari, S., Hubler, J.F., Hsuan, Y.G., Marcellus, K., 2012. Beneficial use of Plastic Pipe in Sustainable Stormwater Infrastructure, 1st International Specialty Conference on Sustaining Public Infrastructure, Canadian Society for Civil Engineering, Edmonton, Alberta, June 6-9, 2012 (paper and presentation).
56. Marcellus, K.A., Spatari, S., Gallagher, P.M., 2012. Utilizing GIS as a geospatial tool to inventory LEED Certified Projects and subcomponents in the United States, 3rd International Symposium on Life-Cycle Civil Engineering (IALCCE 2012), October 3-6, 2012, Hofburg Palace, Vienna, Austria (paper and presentation).
57. Hubler, J.F., Gallagher, P.M., Spatari, S., 2012. Life Cycle Assessment of Tuttle Creek Dam Seismic Retrofit, 3rd International Symposium on Life-Cycle Civil Engineering (IALCCE 2012), scheduled for October 3-6, 2012, Hofburg Palace, Vienna, Austria (paper and presentation).
58. Marcellus, K.A., Spatari, S., Gallagher, P.M., 2012. Construction Waste Management Decision Making Process: Identification, Framework and Detailed Urban C&D Waste Profile Analysis, IEEE-ISSST 2012 Conference Proceedings, May 15-17, 2012.
59. Hubler, J.F., Spatari, S., Hsuan, Y.G. Environmental Life Cycle Assessment of Conventional and Advanced HDPE Pipe in Highway Drainage Applications, 91st Annual Transportation Research Board Meeting, Washington DC, January 22-26, 2012.
60. Cucura, J.J., Burnap, B., Gallagher, P.M., Spatari, S., Jordaan, S., 2011. Geospatial LCA of land disturbance in Pennsylvanian Marcellus Shale, LCA XI Conference, Chicago, Il. October 4-6, 2011.
61. Gallagher, P.M., Spatari, S., 2011. Life Cycle Approaches for Brownfields Redevelopment. Georisk 2011: Risk Assessment and Management in Geoengineering, pp. 736-742, June 26-29, 2011, Atlanta, GA.
62. Spatari, S., Kandasamy, N., Kusic, D., Ellis, E.V., Wen, J. Energy and Environmental Aspects of Data Centers. World Renewable Energy Congress 2011 – Sweden, Energy End-Use Efficiency Issues (EEE), p. 1-8, 8-11 May 2011, Linköping, Sweden (paper and presentation).
63. Spatari, S., Kandasamy, N., Kusic, D., and Ellis, E. V., Energy and locational workload management in data centers, in *Sustainable Systems and Technology (ISSST), 2011 IEEE International Symposium on*, 2011, pp. 1-5, 16-18 May 2011, Chicago, IL (paper and presentation).
64. Hubler, J., Spatari, S., Hsuan, Y.G., 2011. Life cycle assessment of conventional and advanced plastic pipe materials. 2011 IEEE International Symposium on Sustainable Systems and Technology (ISSST), 16-18 May 2011, Chicago, IL (paper and poster).
65. Hsuan, Y.G., Olson, M.S., Cairncross, R., Spatari, S. and S. Kilham (2011). "The roles of geomembranes in algae production at landfills", in GRI-24 Conference Proceedings, Optimizing Sustainability Using Geosynthetics, March 16, 2011, Dallas, TX (paper and presentation).

66. Spatari, S., Tomkins, C.D., Kammen, D., 2009. Can transportation reduce its carbon intensity by 1 giga tonne? 8th World Congress of Chemical Engineering (WCCE8), August 23-27, 2009 – Montreal, Quebec – Canada (Paper and presentation).
67. Dilworth, R., Stokes, R., Weinberger, R., Spatari, S., 2009. Measuring Sustainability in Infrastructure: The Case of Philadelphia, Villanova University Sustainability Conference, April 23-26, 2009.
68. Spatari, S.; Zhang, Y. M.; MacLean, H. L., FUEL 95-Life cycle evaluation of pretreatment options for lignocellulosic ethanol. *Abstracts of Papers of the American Chemical Society* **2007,** *234*, 95-FUEL.
69. Spatari, S., Vexler, D., Bertram, M., Graedel T.E. The contemporary Latin American copper cycle: one year stocks and flows. Cobre '03, Santiago Chile, December 1-4, 2003 (Paper and presentation).
70. Spatari, S., Young, S.B., Life Cycle Tools and Databases for Building Technology, Canadian Society for Civil Engineering 2000 Conference, London, ON, June 7-10, 2000 (Paper and presentation).
71. Spatari, S.; Saur, K., *Ecomaterials database development: addressing issues of quality and data exchange*. Canadian Inst Mining, Metallurgy and Petroleum: Montreal, 2000; 39th Conference of Metallurgists, August 20-23, 2000; p 135-147 (Paper and presentation).
72. Kim, H.C., Keoleian, G.A., Spatari, S., Bulkley, J.W. (2000). Optimizing Vehicle Life Using Life Cycle Energy Analysis and Dynamic Replacement Modeling, Total Life Cycle Conference, Detroit, MI, Paper No. 2000-01-1499, 241-250.
73. Stephens, R. D., Williams, R.L., Keoleian, G.A., Spatari, S., Beal, R. (1998). Life Cycle Assessment of Plastic and Steel Vehicle Fuel Tanks, SAE 98224.

Book chapters

74. Spatari, S.; Kohl, P. M., Sustainability as a Guiding Paradigm for Prosperity. In *Wiley Encyclopedia of Management*, John Wiley & Sons, Ltd: **2015**.
75. Adler, P. R.; Del Grosso, S. J.; Inman, D.; Jenkins, R. E.; Spatari, S.; Zhang, Y. M., Mitigation Opportunities for Life-Cycle Greenhouse Gas Emissions during Feedstock Production across Heterogeneous Landscapes. In *Managing Agricultural Greenhouse Gases: Coordinated Agricultural Research through Gracenet to Address Our Changing Climate*, Academic Press: San Diego, **2012**, 203-219, DOI: 10.1016/b978-0-12-386897-8.00012-7; Citations=5.
76. Weinrich, L., Hubler, J.F., Spatari, S. Water Supply: modelling watersheds and treatment facilities, in Handbook of Metropolitan Sustainability, Zeman, F. (Ed.), Spring 2012.
77. Zhang, Y., Spatari, S., McKechnie, J., MacLean, H.L., 2010. Environmental life cycle assessment (LCA) of lignocellulose-to-bioalcohol production, in: Biochemical conversion of lignocellulosic biomass, Waldron, K. (Editor). (Book chapter).
78. Spatari, S., Tomkins, C.D., Kammen, D.M., 2009. Biofuels, chapter in The Gigaton Throwdown (Book chapter).
79. Spatari, S. (2005). Material flow analysis use in a mineral efficiency framework, Chapter in Managing Metals for the Future: Issues and Opportunities for Improved Metals Stewardship in Canada, A. Young & M. L. Barreto (Eds.), MERG, Ottawa, (Book chapter, invited contributor).

Other Publications

80. Hsuan, Y.G., Olson, M.S., Spatari, S., Cairncross, R., and S. Kilham, 2012. "The roles of geomembranes in algae production at landfills", *Geosynthetics*, June/July 2012, pp. 34-41.

Non-refereed Contributions (Conference papers, presentations, posters)

81. Kahane, Y., Spatari, S., Special Proposed Opportunities: Sophisticated Grid Management and New Storage Solution, 7th International Eilat-Eilot Renewable and Clean Energy Conference, 27-29, November 2016.
82. Spatari, S., Bjoernebo, L., Evaluation of carbon and cost tradeoffs for district heating in the Northeastern U.S., ISIE Social Economic Metabolism and Asia Pacific Chapter Meeting, 28-30 September, 2016, Nagoya, Japan.
83. Spatari, S., Foti, R., Zolitor, R., Hurd, E., O'Donnell, S.E., Schickling, M., Gurian, P., Towards Deep Urban Carbon Emissions Reduction: A Case of Planning in the Electricity Sector in Philadelphia, ISIE

Social Economic Metabolism and Asia Pacific Chapter Meeting, 28-30 September, 2016, Nagoya, Japan.

84. Spatari, S., Larnaudie, V., Nguyen, L., Sorunmu, Y. Billen, P.M., Life cycle assessment of biochemical and thermochemical bio-product pathways. American Chemical Society Annual Meeting, August 21-25, 2016 Philadelphia, PA.
85. Billen, P., Sorunmu, Y., Santosa, D., Rousseau, R., Glezakou, V., Elliot, D., Elwell, J., Hartvigsen, J., Elangovan, S., Karanjikar, M., Spatari, S., Electrochemical upgrading of lignocellulosic pyrolysis oil: process understanding for prospective life cycle assessment, American Chemical Society Annual Meeting, August 21-25, 2016 Philadelphia, PA.
86. Larnaudie, V. Riazi, B., Bule, M., San, K.Y., Vadlani, P.V., Mosby, J., Elwell, J., Elangovan, S., Karanjikar, M., Rooney, W., Spatari, S. Renewable diesel production from lignocellulosic feedstock: life cycle environmental and cost analysis. 38th Symposium for Biotechnology for Fuels and Chemicals, Hilton Baltimore, Baltimore, MD, April 25-28, 2016 (poster).
87. Riazi, B., Larnaudie, V., Mosby, J., Spatari, S. Life Cycle Assessment of Renewable Diesel Produced from Biomass and Animal Waste. 38th Symposium for Biotechnology for Fuels and Chemicals, Hilton Baltimore, Baltimore, MD, April 25-28, 2016 (poster).
88. Nguyen, L., Hsuan, G., & Spatari, S. (2016, January). Sustainability of Construction Materials and System. Poster presented at the Transportation Research Board Conference, Washington, D.C. (poster).
89. Spatari, S., Adler, P.R., D'Ottone, F., Vazquez, D. Opportunities for Renewable Energy from Agriculture in Uruguay, 2nd 2nd International Research Workshop on the Management of Fragile Ecosystems, Cienfuegos, Cuba, December 8-10, 2015 (paper and oral presentation).
90. Patwa, A.J., Dye, C., Ellis, E.V.E., Frazier, L., Gurian, P., Spatari, S., Wen, J. Protecting Sensitive Ecosystems by Reducing Carbon Emissions in the Building Sector y, 2nd 2nd International Research Workshop on the Management of Fragile Ecosystems, Cienfuegos, Cuba, December 8-10, 2015 (paper and oral presentation).
91. Billen, P., Sorunmu, S., Elangovan, S., Larsen, D., Hartvigsen, J., Mosby, J., Staley, J., Elwell, J., Spatari, S. Electrochemical deoxygenation of bio-oil from fast pyrolysis of lignocellulosic biomass: Energy balance estimated by bond dissociation energies. 2015 American Institute of Chemical Engineers (AIChE) Annual Meeting, Salt Lake City, UT, U.S.A., November 8-13, 2015 (oral presentation).
92. Sorunmu, S., Billen, P., Elangovan, S., Larsen, D., Hartvigsen, J., Mosby, J., Staley, J., Elwell, J., Spatari, S. A Life Cycle Assessment (LCA) comparison of electrochemical deoxygenation and hydro-deoxygenation of bio-oil from fast pyrolysis of lignocellulosic biomass. 2015 American Institute of Chemical Engineers (AIChE) Annual Meeting, Salt Lake City, UT, U.S.A., November 8-13, 2015 (oral presentation).
93. Spatari, S., Kahane, Y., Data management for a renewable-integrated electricity grid. 14th World Wind Energy Conference and Exhibition (WWEC 2015), Jerusalem, IL, 26-28 October, 2015, (oral presentation).
94. Larnaudie, V., Bule, M., San, K.Y., Vadlani, P.V., Mosby, J., Elwell, J., Elangovan, S., Karanjikar, M., Sorunmu, Y., Spatari, S. Life cycle environmental and cost analysis of renewable diesel production. 65th Canadian Chemical Engineering Conference (CSChE), Calgary, Alberta, Canada, October 4-7, 2015 (oral presentation).
95. Duhl, J.T., Huemmler, A.E., Spatari, S. Methane Hydrates: a good energy return on investment? 65th Canadian Chemical Engineering Conference (CSChE), Calgary, Alberta, Canada, October 4-7, 2015 (oral presentation).
96. Nguyen, L.; Cafferty, K.; Searcy, E.; Spatari, S., Uncertainties in Life Cycle Greenhouse Gas Emissions from Advanced Biomass Feedstock Logistics Supply Chains, Newbio annual meeting, Aug 3-5, 2015 (poster).
97. Björnebo, L., Spatari, Life cycle and an economic evaluation of the possibilities of district heating in sparsely populated regions in the northeastern USA using short-rotation willow as feedstock, Newbio annual meeting, Aug 3-5, 2015 (poster).

98. Spatari, S., Kahane, Y., Improving the life cycle performance of renewable-integrated electricity through transmission loss improvements, ISIE Annual Meeting, Surrey, UK, July 7-13, 2015, (oral presentation).
99. De Sousa, R., Montalto, F.A., Spatari, S., Using life cycle assessment to improve green and grey combined sewer overflow control strategies, ISIE Annual Meeting, Surrey, UK, July 7-13, 2015, (oral presentation).
100. Spatari, S., Mannoh, I., Bjornebo, L., Boateng, A.A., Macken, N., Mullen, C.A., Wheeler, M.C., Life Cycle Environmental and Energetic Tradeoffs of Pyrolysis Bio-oil Upgrading, 2015 AEESP Research and Education Conference, New Haven, CT, June 13-17, (poster).
101. Nguyen, L.; Cafferty, K.; Searcy, E.; Spatari, S., Uncertainties in Life Cycle Greenhouse Gas Emissions from Advanced Biomass Feedstock Logistics Supply Chains in Kansas, 2015 AEESP Research and Education Conference, New Haven, CT, June 13-17, (poster).
102. Gao, S., Gurian, P.L., Adler, P.R., Gurung, R., Ogle, S.M., Speers, C.M., Del Grosso, S.J., Spatari, S., Managing Uncertainty in Greenhouse Gas Emissions from Biofuel Feedstock Production, 2015 AEESP Research and Education Conference, New Haven, CT, June 13-17, (poster).
103. Larnaudie, V., Bulec, M., San, K.Y., Vadlani, P.V., Mosby, J., Elwell, J., Elangovan, S., Karanjikar, M., Sorunmu, Y., Spatari, S. Life cycle environmental and cost analysis of renewable diesel production. 2015 AEESP Research and Education Conference, New Haven, CT, June 13-17, (poster).
104. Sorunmu, Y., Lindy, R., Gurian, P., Hunold, C., Spatari, S., Financial Sustainability of Urban Agriculture. 2015 AEESP Research and Education Conference, New Haven, CT, June 13-17, (poster).
105. Hums, M., Cairncross, R.A., Olson, M., Spatari, S. Longitudinal study of waste grease compositions for the production of biodiesel 2015 AEESP Research and Education Conference, New Haven, CT, June 13-17, (poster).
106. Björnebo, L. & Spatari, S. (2015, June). *Quantification and Analysis of the Potential of District Heating in the Northeastern USA*. Poster session presented at the European Biomass Conference and Exhibition, Vienna, Austria (poster).
107. Björnebo, L. & Spatari, S. (2015, June). Quantification and Analysis of the Potential of District Heating in the Northeastern USA. ROKWOOD workshop presentation at the European Biomass Conference and Exhibition, Vienna, Austria (oral presentation).
108. Nguyen, L., Spatari, S., & Hsuan, Y. G. (2015, February). *Enhancing the Life Cycle of Plastic Pipes with Recycled Material*. Poster presented at the Delaware Valley Geo-Institute meeting of the American Society of Civil Engineers on the life cycle assessment of high density polyethylene pipe with recycled material, Villanova, PA.
109. Spatari, S., Pourhashem, G., Selfa, T., Boateng, A.A., Social Sustainability Dimensions of Biofuel Supply at Small Scale, 11th International Society for Industrial Ecology (ISIE) Socio-Economic Metabolism section conference and the 4th ISIE Asia-Pacific conference Melbourne, Australia, November 17-19, 2014 (oral presentation).
110. Spatari, S, Pourhashem, G., Keedy, J., Macken, N., Boateng, A.A., Mullen, C.A. Exergetic and Life-Cycle Assessment of Bio-oil Production from Forest Residue using Fast Pyrolysis, 11th International Society for Industrial Ecology (ISIE) Socio-Economic Metabolism section conference and the 4th ISIE Asia-Pacific conference Melbourne, Australia, November 17-19, 2014 (oral presentation).
111. Fertitta, C., Grantz, D., Jenerette, D., Spatari, S., Life Cycle Assessment of Sorghum Cultivation as Biofuel Feedstock in an High Temperature Environment, American Society of Agronomy, Long Beach, California, November 2-5, 2015 (poster).
112. Spatari, S., Bjornebo, L., Mannoh, I., Mercado, I., Macken, N., Mullen, C.A., Wheeler, M.C., 2014. Life Cycle Evaluation of Pyrolysis Fuel Pathways, Frontiers in Biorefining – Chemicals and Products from Renewable Carbon, King and Prince Beach and Golf Resort, St. Simons Island, GA, October 21-24, 2014 (oral presentation).
113. Spatari, S., Mickute, M., Magee, M. Hsuan, Y.G., 2014. Developing Cost Effective Lightweight Green Roofs, Urban Environmental Pollution 2014, June 18-22, 2014, Toronto, Canada (poster).
114. Speers, C.M., Gurian, P.L., Adler P. R., Del Grosso, S.J., Spatari S., "Sources of uncertainty in nitrous oxide emissions from winter barley biofuel feedstock life cycles", 2013 AGU Fall Meeting, December 9-13, 2013, San Francisco, CA, USA (poster).

115. Pourhashem G., Block P. J., Adler P. R., Spatari S., "Impact of climate variability on N and C flux within the life cycle of biofuels produced from crop residues", 2013 AGU Fall Meeting, December 9-13, 2013, San Francisco, CA, USA (poster).
116. Pourhashem, G., Spatari, S., Boateng, A.A., Mullen, C.A., McAloon, A.J., "Environmental Life Cycle Implications of Near-term Fast Pyrolysis Products", 2013 AIChE meeting, November 4-9, 2013, San Francisco, CA (oral presentation).
117. Pourhashem, G., Spatari, S., Benjamin, J., Macken, N., Keedy, J., Boateng, A.A., Mullen, C.A., 63rd Canadian Chemical Engineering Conference, October 20-23, 2013, Fredericton, NB, Canada (oral presentation).
118. Prymak, E., Macken, N., Boateng, A.A., Mullen, C.A., Spatari, S., Pourhashem, G., "Exergy and Energy Analysis of Switchgrass Production and Conversion to Bio-Oil Using Fast Pryolysis",63rd Canadian Chemical Engineering Conference, October 20-23, 2013, Fredericton, NB, Canada (oral presentation).
119. Pourhashem G., Spatari S., Adler P. R., McAloon A., "Environmental and Economic Analysis of Alternative Applications of Lignin from Bio-ethanol", 63rd Canadian Chemical Engineering Conference, October 20-23, 2013, Fredericton, NB, Canada (oral presentation).
120. Spatari, S. LCA of emerging biomass conversion pathways to fuels and bio-based products. 17th Annual Green Chemistry & Engineering Conference, June 18-20, 2013, Bethesda, Maryland.
121. Pourhashem G., Spatari S., Adler P. R., McAloon A., "Environmental and economic impact analysis of alternative applications of lignocellulosic ethanol fermentation process byproduct", 10th World congress on Industrial biotechnology, June 16-19, 2013 Montreal, QC, Canada.
122. Spatari, S. Pourhashem, G., Boateng, A.A., Mullen, C.A., McAloon, A.J., Richard, T.L., 2013 NAE, Life Cycle Assessment of Biomass Densification through Fast Pyrolysis; poster presented at the NAE-GAFOE meeting on Biomass Conversion April 26-27, 2013, Irvine, California.
123. Hums, M.E., R.A. Cairncross, and S. Spatari. *Life Cycle Assessment for the Production of Biodiesel from Trap Grease*. in *International Symposium on Sustainable Systems and Technology (ISSST) 2013*. 2013. Cincinnati, OH.
124. Hums, M.E., Stacy, C.A., Cairncross, R.A., Spatari, S., *Well-to-Wheel Life Cycle Assessment for the Production of Biodiesel from Trap Grease*, in *American Institute of Chemical Engineers (AIChE) Annual Meeting: Life Cycle Analysis of Bio-Based Fuels, Energy and Chemicals I.* 2012: Pittsburgh, PA.
125. Spatari, S., Adler, P.R., DeSouza, T.M., Carrasco-Letelier, L., D'Ottone, F., Rodríguez, G., Vasquez, D., Vicente, E., Vilaró, F., Evaluation of Low Carbon Biofuels for Domestic Energy Supply in Uruguay, 61st Canadian Chemical Engineering Conference in Vancouver, British Columbia, October 14-16, 2012.
126. Mitchell, J., Adler, P.R., Block, P., Spatari, S., 2012. Integrating Geospatial and Hydrologic Analytical Tools into LCA, The American Center for Life Cycle Assessment, LCA XII, Tacoma, WA, September 24-27, 2012 (Poster). <u>*Received 1st Prize in student poster competition.</u>
127. Spatari, S., Hsuan, Y.G., Capaldi, F., Na, S., Hubler, J.F., Tran, L., Enhancing the life cycle of plastic pipes through nano-clay reinforcement, NSF CMMI Research and Innovation Conference 2012, July 9-11 in Boston, Massachusetts (poster).
128. Hubler, J.F., Cordi, A.M., Gallagher, P.M., Spatari, S., 2012. Life Cycle Assessment of Tuttle Creek Dam Seismic Remediation, Gordon Research Conference on Industrial Ecology, Les Diablerets, Switzerland June 16-17, 2012 (poster).
129. Mira Olson, Drexel University; Patrick Gurian, Drexel University; Sabrina Spatari, Drexel University; Sarah Colins, Drexel University. REU Site: Engineering Cities and Drexel University, NSF Engineering Education Awardees Conference, Arlington, VA, March 4-6, 2012 (Poster).
130. Adler, P.R., Del Grosso, S.J., Parton, W.J., Spatari, S. 2011. Influences of the Landscape on Life Cycle Carbon Intensity of Biofuels, American Geophysical Union, San Francisco, December 5-9, 2011 (Poster, B51H-0509).
131. De Sousa, R.M.C., Spatari, S., Montalto, F.A., 2011. LCA as a Tool to Evaluate Green Infrastructure's Environmental Performance, American Geophysical Union, San Francisco, December 5-9, 2011 (Poster, GC43B-0896).

132. Pourhashem, G., Spatari, S, Boateng, A.A., McAloon, A., 2011 Life cycle assessment of pyrolysis bio-oil and bio-char from corn stover, AIChE 2011 Annual Meeting, October 16-21, Minneapolis, MN.
133. Pourhashem, G., Spatari, S., Adler, P.R. 2011. Temporal implications of life cycle greenhouse gas emissions for biofuel pathways with carbon storage, SIEYP 2011, June 11, 2011, University of California, Berkeley, CA (Poster).
134. Pourhashem, G., Spatari, S., Adler, P.R. 2011. Temporal implications of life cycle greenhouse gas emissions for biofuel pathways with carbon storage, ISIE 2011 Conference, June 7-10, 2011, University of California, Berkeley, CA (Oral presentation).
135. Spatari, S., Hsuan, G.Y., Capaldi, F., Na, S.Y., Hubler, J.F., Enhancing the Life Cycle of Plastic Pipes Through Nanoclay-reinforcement, NSF CMMI Research and Innovation Conference 2011, Engineering for Sustainability and Prosperity, January 4-7, 2011, Atlanta, GA (Poster).
136. Gallagher, P., Spatari, S., 2011. Life Cycle Approaches for Brownfields Redevelopment, 2nd International Congress on Sustainability and Engineering, January 9-12, 2011 in Tucson, Arizona (Poster).
137. Pourhashem, G., Adler, P.R., McAloon, A., Spatari, S. 2010. Life Cycle Cost of Greenhouse Gas Reduction through Lignin-Land Application, AIChE 2010 Annual Meeting, November 7-12, 2010, Salt Lake City, UT (Paper and oral presentation).
138. Spatari, S. Kandasamy, N., Kusic, D., Ellis, E.V., 2010. Average and Marginal Reductions in Greenhouse Gas Emissions from Data Center Power Optimization. LCA X Conference, Portland, OR. November 2-4, 2010 (Oral presentation).
139. Adler, P.R., Del Grosso, S.J., Ogle, S.M., Pourhashem, G., Stadel, A., Spatari, S., Roth, G.W., Parton, W.J., 2010. Life cycle assessment of cellulosic and advanced biofuel crops, ASA, CSSA, and SSSA 2010 International Annual Meetings, Oct. 31-Nov. 4, 2010, Long Beach, CA.
140. Zhang, Y., Spatari, S., Heath, G., 2010. Are we ready for consequential life cycle assessment-based regulations? LCA X Converence, Portland, OR. November 2-4, 2010 (Oral presentation).
141. Spatari, S., Stadel, A., McAloon, A., Adler, P.R., Hicks, K.B., 2010. Life cycle assessment of greenhouse gas emissions for winter barley ethanol—Status as an advanced biofuel. AACC International Annual Meeting, October 24-27, 2010, Savannah, Georgia (Oral presentation).
142. Adler, P.R., Del Grosso, S.J., Pourhashem, G., Spatari, S., Roth, G.W., Parton, W.J., 2010. Quantifying and mitigating the environmental impacts of using corn stover as a biofuel feedstock, 95th ESA Annual Meeting, August 1-6, 2010, Pittsburgh, PA.
143. Spatari, S., Yu, Z., Montalto, F.A., 2010. Environmental life cycle benefits of urban green infrastructure. Gordon Research Conference on Industrial Ecology, July 11-16, 2010, Colby-Sawyer College, New London, NH (Poster presentation).
144. Pourhashem, G., Spatari, S., 2010. Reducing life cycle GHG emissions and costs of cellulosic ethanol through lignin-land application. Gordon-Kenan Research Seminar on Industrial Ecology, July 10-11, 2010, Colby-Sawyer College, New London, NH (Oral and poster presentation).
145. Cucura, J.A., Spatari, S., Gallagher, P.M., 2010. Life Cycle Assessment of a colloidal silica grouted soil barrier. Gordon-Kenan Research Seminar on Industrial Ecology, July 10-11, 2010, Colby-Sawyer College, New London, NH (Poster presentation).
146. Yu, Z., Spatari, S., Montalto, F.A., 2010. Modeling the life cycle implications of urban green infrastructure development. Urban Environmental Pollution: Overcoming Obstacles to Sustainability and Quality of Life, June 20-23, 2010, Boston, MA, USA (Oral presentation).
147. Cucura, J.A., Spatari, S., Gallagher, P.M., 2010. Life cycle assessment of a colloidal silica grouted soil barrier, International Conference on Green Remediation: Environment ~ Energy ~ Economics, Amherst, MA, June 15-17, 2010 (Poster presentation).
148. Spatari, S., Adler, P.R., Del Grosso, S., Roth, G.W., 2009. Do Winter Cover Crops Improve the life cycle of corn and corn-stover ethanol conversion? LCA IX Conference, Boston, September 29th - October 2nd, 2009 (Oral presentation).
149. Wilson, T., Spatari, S., Adler, P.R., 2009. Switchgrass Production in the Northeast: LCA of switchgrass for heat and power. LCA IX Conference, Boston, September 29th - October 2nd, 2009 (Oral presentation).

150. Stadel, A., Spatari, S., 2009. Sustainability implications of vertical farming for Philadelphian urban food supply. LCA IX Conference, Boston, September 29th - October 2nd, 2009 (Poster presentation).
151. Adler, P.R., Spatari, S., Del Grosso, S.J., Parton, W.J., 2009. Dormant season or summer harvest of grasslands: Tradeoffs in ethanol yield and life cycle GHG emissions, 94th ESA Annual Meeting, August 2 - 7, 2009, Albuquerque, NM.
152. McIntyre, J., Spatari, S., MacLean, H.L., 2008. Evaluating the Life Cycle Energy and Greenhouse Gas Tradeoffs of Using Recycled Concrete Aggregates in New Concrete. International Life Cycle Assessment and Management 2008. Seattle, WA - October 2 to 4 (Oral presentation).
153. Spatari, S. 2008. From the Low Carbon Fuel Standard to Sustainable Fuels, 2008 Climate Decision Making Center Annual Meeting, Carnegie Mellon University, Pittsburgh, PA, May 19-21, 2008.
154. Spatari, S., MacLean, H.L. Life Cycle Assessment of Emerging Bio-Ethanol Pathways. International Life Cycle Assessment and Management 2007. Portland, Oregon - October 2 to 4 (Oral presentation).
155. Spatari, S., Zhang, Y., MacLean, H.L. Life Cycle Evaluation of Pre-treatment Options for Lignocellulosic Ethanol. American Chemical Society 234th National Meeting and Exposition. August 19-23, 2007. Boston, MA (Oral presentation and paper)
156. Spatari, S., MacLean, H.L. (2006). Implications of a Lignocellulosic Ethanol Industry for Fueling Light-Duty Vehicles in Ontario, Canada. 2006 SAE Powertrain & Fluid Systems Conference & Exhibition, Sheraton Hotel, Toronto, Canada, October 16-19, 2006 (Oral presentation).
157. Spatari, S., MacLean, H.L. (2006). Life Cycle Evaluation of Emerging Lignocellulosic Ethanol Conversion Technologies, World Biofuels, 2006 World Congress on Industrial Biotechnology and Bioprocessing, Westin Harbour Castle Hotel, Toronto, Ontario, Canada, July 11-14 (Poster presentation)
158. Spatari, S., MacLean, H.L. (2006). Life Cycle Evaluation of Four Lignocellulosic Ethanol Pretreatment Technologies, 28th Symposium on Biotechnology for Fuels and Chemicals, Nashville, TN, Nashville Airport Marriott, Nashville, TN, April 20-May 3, 2006 (Oral presentation).
159. Spatari, S., MacLean, H.L., Investigating the Potential for Biomass Fuels: A Techno-economic evaluation of Bioethanol, 55th Canadian Chemical Engineering Conference. Metro Toronto Convention Centre, Toronto, Ontario, Canada, October 16-19, 2005 (Oral presentation).
160. MacLean, H.L., Spatari, S., Fleming, J. Investigating the Sustainability of the Personal Transportation Sector through Life Cycle Inventory and Impact Assessment, 55th Canadian Chemical Engineering Conference. Metro Toronto Convention Centre, Toronto, Ontario, Canada, October 16-19, 2005 (Oral presentation).
161. MacLean, H.L., Spatari, S., Fleming, J.S. Life Cycle Assessment of Alternative Fuels for Light-Duty Vehicles: Assessing the Potential of Biomass-Derived Alternatives, Materials Research Society, 2005 Fall MRS Meeting, November 28 - December 2, Boston, MA, USA (Oral presentation).
162. Spatari, S., MacLean, H.L. A Life Cycle Model for Lignocellulosic Ethanol Fuels in Ontario. Capturing Canada's Green Advantage: Biosphere Solutions for Climate Change and the Economy, BIOCAP Canada Foundation, February 2-3, 2005, Ottawa, Canada (Poster presentation).
163. MacLean, H.L., Spatari, S., Zhang, Y. Green Designing the Automobile: Evaluating Fuel/Propulsion System Alternatives. Society of Automotive Engineers 2004 World Congress. April, 2004. Detroit, MI (Oral presentation).
164. Spatari, S., Graedel, T.E. Characterizing Zinc Stocks and Flows: Material Flow Analysis at Regional and Global levels. Conference of Metallurgists, August 22-24, 2003, Vancouver, BC. (Poster presentation).
165. S. Spatari. Continental Scale Substance Flow Analysis: Zinc Stocks and Flows in Europe. Gordon Research Conference on Industrial Ecology. June 9-14, 2002, New London, NH. (Poster presentation).
166. Spatari, S. The Contemporary European Copper Cycle, Inaugural meeting of the International Society for Industrial Ecology, November 11-14, 2001, Leiden, The Netherlands (Oral presentation).
167. Spatari, S., Young, S. 2000, Life Cycle Tools and Databases for Building Technology, 28th Canadian Society for Civil Engineering Conference, London, ON (Paper and oral presentation).
168. Spatari, S. Life Cycle Engineering: Performing LCIA and Sensitivity Analysis Using GaBi 3, InLCA: Tools for Sustainability, April 25 - 27, 2000 (Oral presentation).

Invited Lectures:

1. Spatari, S. Technological, Climate Change and Sustainability Aspects of Future Transportation Fuels, Mechanical Engineering, Tel Aviv University, November 21, 2016.
2. Spatari, S. Opportunities for carbon abatement through development of biomass-to-bioenergy pathways Porter School of Environmental Studies seminar, Tel Aviv University, November 14, 2016.
3. Spatari, S., Considering Thermodynamic and Social Dimensions of Systems-based Decision Making, Gordon Research Conference on Industrial Ecology, June 20, 2016.
4. Spatari, S., Sustainable Bioenergy for Transportation, "Energy Interdependence in the Western Hemisphere," November 5, 2015 at the Federal Reserve Bank of Philadelphia.
5. Spatari, S., Life Cycle Sustainability Aspects of Biomass Conversion Technologies, Porter School of Environmental Studies, Tel Aviv University, July 16, 2015.
6. Spatari, S., Life Cycle Sustainability Aspects of Emerging Biomass Conversion Technologies, Israel Sustainable Energy Society Annual Meeting (ISES-2015), Ben Gurion University, February 16, 2015.
7. Spatari, S., 2014, Life cycle management of shale gas products, The Shale Exchange Workshop, Pittsburgh, PA, October 29-31, 2014.
8. Spatari, S., 2014. Life Cycle Evaluation of Pyrolysis Fuel Pathways, Frontiers in Biorefining – Chemicals and Products from Renewable Carbon, University of Tennessee, King and Prince Beach and Golf Resort, St. Simons Island, GA, October 21-24, 2014.
9. Spatari, S., 2014, Technological, Climate Change and Sustainability Aspects of Future Transportation Fuels, SusTech Summit, University of California, Santa Barbara, October 1-2, 2014.
10. Spatari, S., 2014, Novel bioprocess to produce renewable premium lubricants, Alberta Innovates, Calgary, Alberta, Canada, September 26, 2014.
11. Spatari, S., 2014, LCA of Second Generation Biofuels: Feedstocks, Conversion Technologies, and co-Products, Exxon-Mobil, Annondale, NJ, September 19, 2014.
12. Spatari, S., 2014, Life Cycle-based Decision Support for Sustainable Infrastructure: Guides to Materials Selection and Design, Tel Aviv, Israel, March 2014.
13. Spatari, S., 2013, Technological, Climate Change and Sustainability Aspects of Future Transportation Fuels, the Pennsylvania State University, November 19, 2013.
14. Spatari, S., 2013, "Life Cycle Analysis of Sweet Sorghum Ethanol in Uruguay," Eastern Regional Research Center, ARS, USDA, Wyndmoor, PA, August 20, 2013.
15. Spatari, S., 2013, "LCA, Environmental, and Sustainability Aspects of Emerging Biomass Conversion Technologies," German-American Frontiers of Engineering Meeting, National Academy of Engineering, Irvine, CA, April 2013.
16. Spatari, S., 2012, Technological, Climate Change and Sustainability Aspects of Future Transportation Fuels, University of British Columbia, Vancouver, BC, Canada, April 4, 2013.
17. Spatari, S., 2012, "Biofuels and the Life Cycle Basis for Assessing Energy Supply Policy Decisions," Presentation to the U.S. Embassy in Uruguay, Montevideo, Uruguay, May 31, 2012.
18. Spatari, S., 2012, Technological, Climate Change and Sustainability Aspects of Future Transportation Fuels, York University, Toronto, ON, Canada, May 8, 2012.
19. Spatari, S., (with Thomas L. Richard, Penn State University), NewBio, National Institute of Food and Agriculture, United States Department of Agriculture, April 2, 2012.
20. Spatari, S., 2011, Technological, Climate Change and Sustainability Aspects of Future Transportation Fuels, University of Oklahoma, November 10, 2011.
21. Spatari, S., 2011, Uncertainties in Life Cycle Modeling of Biofuels, ExxonMobil, Annondale, NJ, October 12, 2011.
22. Spatari, S., 2011, Biofuels: The land use and environmental implications of addressing transportation and energy problems, The 21st Annual UCLA Lake Arrowhead Symposium on the Transportation – Land Use – Environmental Connection, October 16-18, 2011.
23. Spatari, S., 2011, Life Cycle Assessment and Winter Cropping Systems, Short Course on Life Cycle Assessment, Pennsylvania State University, July 26-27, 2011.
24. Spatari, S., 2011. Life cycle assessment of plastic infrastructure materials. Plastic Pipe Institute Annul Meeting, Hilton Head, SC, May 2-3, 2011.

25. Spatari, S., 2011. Life cycle assessment and winter cropping systems, Winter Crops for Bioenergy and more, Penn State Bioenergy Short Course Series, Pennsylvania State University, March 29, 2011.
26. Spatari, S., 2011, Life cycle assessment of advanced plastic pipe materials. Nanocor (a division of the Amcol Company, January 28, 2011.
27. Spatari, S., 2010. "Infrastructure Materials Ecology". 2010 EU-US Frontiers of Engineering Symposium, National Academy of Engineering, Jesus College, University of Cambridge, Cambridge, UK, September 1-3, 2010 (Participant and poster presentation).
28. Spatari, S. Life Cycle Assessment of GHG Emissions from Winter Barley Ethanol, Winter Barley Ethanol Project Meeting, Thursday, July 22, 2010 Meeting At ERRC, ARS, USDA (invited speaker)
29. Spatari, S. Can Government be Green? A Panel Discussion: Hosted by the Program on Law, Environment and Economy (PLEE) University of Pennsylvania Law School, September 25, 2009 (invited speaker and panelist).
30. Spatari, S., Life Cycle Assessment in the Bio-Economy, Bioenergy Bridge Meeting, July 15-16, 2009
31. Spatari, S., Gigaton Throwdown Initiative Launch, Washington D.C., June 24, 2009 (speaker and panelist)
32. Spatari, S., Achieving Rapid Scale-up of Clean and Low-Carbon Energy Technology, Washington D.C., Congressional Briefing, 2456 Rayburn House Office Building, June 24, 2009 (panelist)
33. Spatari, S. Evaluating the Sustainability of Second Generation Biofuels, Pennsylvania State University, School of Forestry, March 4, 2009.
34. Spatari, S. Technological, Climate Change and Sustainability Aspects of Future Transportation Fuels, Drexel University, Hydrology Seminar, March 2, 2009.
35. Spatari, S. Technological, Climate Change, and Sustainability Aspects of Future Transportation Fuels, California Biomass Collaborative's 5th Annual Forum on Bioenergy Sustainability and Lifecycle Analysis, Sacramento, California, May 28-30, 2008.
36. Spatari, S. Technological and Climate Change Impacts of Lignocellulosic Ethanol Fuels, Environmental Defense Fund, Berkeley, California (and broadcast to offices nation-wide), April 7, 2008.
37. Spatari, S. Technological and Climate Change Impacts of Lignocellulosic Ethanol Fuels, Energy and Resources Group Spring Colloquiem, University of California, Berkeley, April 2, 2008.
38. Spatari, S. Biomass to Ethanol Pathways, Biofuels Interest Group Seminar, University of California, Berkeley, November 19, 2007.
39. Spatari, S. Evaluating the Potential of Biofuels: A Life Cycle Evaluation of Lignocellulosic Ethanol. The School of Natural Resources and Environment, The University of Michigan, Ann Arbor. November 5, 2007. Ann Arbor, MI.
40. Spatari, S. Evaluating the Potential of Biofuels: A Life Cycle Evaluation of Lignocellulosic Ethanol. The Department of Geography and Environmental Engineering Spring 2007 Seminar Series. The Johns Hopkins University. April 4, 2007, Baltimore, MD.
41. Spatari, S. Investigating the Potential for Biomass Fuels. The Department of Earth and Environmental Engineering, Columbia University, New York City, NY, May 11, 2006.
42. Spatari, S. A Life Cycle Evaluation of Bio-Ethanol. Department of Environmental Engineering, University of Guelph, Guelph, ON, March 2006.
43. Spatari, S., MacLean, H.L., Life Cycle Modeling of Alternative Propulsion Systems, Canadian Biodiesel Research Initiative, BIOCAP Canada, June 28-29, 2004, Hilton Toronto Airport, Toronto, ON.
44. Spatari, S. The Multi-scale Zinc Cycle: Regional, Continental, and Global Stocks and Flows. University of Chile, December 2003.
45. Spatari, S. Copper Stocks and Flows. RWTH Aachen University, Aachen, Germany, November 2001.
46. Spatari, S., Metal Stocks, Flows, and Life Cycles: The Contemporary Copper and Zinc Cycles. Eastern Minerals Seminar, U.S. Geological Survey, Reston, VA, August 14, 2001.

Invited Participation and Attendance in Workshops and Conferences:

2016 Participation in the Farmbio annual meeting, August 22, 2016, USDA-ARS, Wyndmoor, PA.
2016 Participation in the YK Center's Global Impact mini-lab, June 7-8, 2016, San Diego, CA
2015 Participation in the NewBio bi-annual meeting December 3-4, 2015, Penn State University, State College, PA.
2015 Participation in the NewBio annual symposium, August 3-5, 2015, West Virginia University, Morgantown, WV.
2015 Invited speaker and participant at the Israel Sustainable Energy Society Annual Meeting (ISES-2015) Ben Gurion University of the Negev, February 16, 2015.
2014 Invited participant and speaker at University of California, Santa Barbara's SusTech Summit, Santa Barbara, California, September 30-October 1, 2014.
2014 Invited participant at The Network for Characterizing Chemical Life Cycles (NCCLC) Workshop University of California, Santa Barbara, Santa Barbara, California, September 30-October 1, 2014.
2014 Invited speaker at Exxon Mobil's ExxonMobil's 2nd Generation Biofuels Workshop, Lebanon, NJ, September 19, 2014.
2014 Participation in the NewBio symposium, August 1-3, 2014, Cornell University Experimental Station, Geneva, NY.
2014 Invited discussion leader at the 2014 Industrial Ecology Gordon Conference, Lucca, Italy, June 1-6, 2014.
2014 Participation in the World Academy of Arts and Sciences meeting on the "Transition to the New Society" in Podgorica, Montenegro, March 20-22, 2014.
2014 Participation in the NSF "US-Israel workshop on the multi-scale design and construction of sustainable built environments", Tel Aviv, Israel, March 10-12, 2014.
2013 Participation in DIY in LA days and Reboot Stories, Skirball Cultural Center, Los Angeles, CA, November 15-16, 2013.
2013 Participation in "Smarter Agriculture: A Dialogue on Critical Data for Agriculture," Workshop organized by Purdue University, Potomac, MD, October 10-11, 2013.
2013 Participation in the FAS Cochran/OIRP/ONP/ARS/USDA Sweet Sorghum Workshop, Eastern Regional Research Center, ARS, USDA, Wyndmoor, PA, August 19-21, 2013.
2013 Participation in the NewBio symposium, August 16, 2013, State College, PA.
2013 National Academy of Engineering: 2013 German-American Frontiers of Engineering (GAFOE) Symposium, April 26-28, 2013, Irvine, CA.
2012 Participation in the NewBio symposium, August 20, 2012, State College, PA.
2012 Participation in the Energy and Climate Partnership of the Americas workshop on May 30, 2012, Montevideo, Uruguay.
2011 Probabilistic Models in Water and Wastewater, Conference for Barry Adams, Invited Session Chair
2011 ISIE Conference Session Chair, Energy Systems, ISIE 2011 Conference, June 7-10, 2011, University of California, Berkeley, CA
2010 NNI Nanotechnology Summit, Gaylord Convention Center, Washington D.C., December 8-10, 2010 (attended).
2010 National Academy of Engineering: 2010 EU-US Frontiers of Engineering Symposium, Materials Ecology, Cambridge, UK, September 1-3, 2010.
2010 NSF ADVANCE Program: Junior Faculty Development Workshop, Rice University, Houston, TX, April 17, 2010.
2010 Learning Bridge Kick-off Meeting, Palmyra Cove, NJ, Invited participant, November 13, 2009
2008 2008 Kathryn Fuller Science for Nature Symposium, World Wildlife Fund, Washington, DC, November 19-20, 2008
2008 Biofuels in the Midwest Workshop, sponsored by the Woodrow Wilson Center and held at the Joyce Foundation, Chicago, Illinois, September 5-7, 2008
2008 Biofuels in the Midwest: A Discussion, The Joyce Foundation and the Woodrow Wilson Center's Program on Science, Technology, America, and the Global Economy & The Global Energy Initiative, Chicago, Illinois, September 5-7, 2008

2008 Workshop on Measuring and Modeling the Lifecycle GHG Impacts of Transportation Fuels, University of California (Berkeley), Berkeley, CA, July 1-2, 2008
2008 Climate Decision Making Center Annual Meeting, Carnegie Mellon University, Pittsburgh, PA, May 19-21, 2008
2003 BE/MUSES Expert Workshop, Model Development for the Global Cycles of the Alloying Elements of Steel, Yale University, New Haven, CT, February 5-8, 2003

CONFERENCE AND WORKSHOP ORGANIZATION

Catalyzing New International Collaborations: The Use of Life Cycle Assessment (LCA) Methods in Geotechnical Engineering, Workshop at the University of Cambridge, Cambridge, UK, February 6-10, 2012.

MEMBER OF EDITORIAL AND ADVISORY BOARD

- Associate Editor, Global Change Biology Bioenergy, Subject Editor on LCA and MFA. Recognized by ISI Journal citation reports as the top journal in Agronomy (1/84) and a leading journal in Energy & Fuels (9/88); IF=6.151
- Associate Editor, Journal of Industrial Ecology, book reviews. ISI Journal citation reports: IF=3.277
- Advisory Board, Mobilities Journal, ISI Journal citation report: IF=1.569; Ranking: Geography (25/77); Transportation (12/31)

GRANTS AND AWARDS

- National Science Foundation, REU supplement to: *EAGER: Spherical Porous Reactive Aggregates (SPoRA) from Coal Bottom Ash*, PI (Spatari), co-PI's (Hsuan, Farnham), Drexel University, August 1, 2016-August 31, 2017, $10,000.
- National Science Foundation, *EAGER: Spherical Porous Reactive Aggregates (SPoRA) from Coal Bottom Ash*, PI (Spatari), co-PI's (Hsuan, Farnham), Drexel University, September 1, 2015-August 31, 2017, $150,000.
- United States Department of Agriculture, *Design and Develop a Life Cycle Assessment Model for the Isostearic Acid Process*, PI (Spatari), October 1, 2015-June 1, 2017, $10,000.
- ExxonMobil, Gift in support of Dr. Spatari's LCA research, December 2014, $20,000
- United States Department of Agriculture, *LCA research on biomass and bioenergy systems*, PI (Spatari), January 1, 2015-November 30, 2015, $30,000.
- National Science Foundation, REU Student support for grant, *Enhancing the Life Cycle of Plastic Pipes Through Nano-reinforcement*, (CMMI- 1449625), PI (Spatari), shared with co-PI Grace Hsuan, Drexel University, September 1, 2014-August 31, 2015, $10,000.
- Louis and Bessie Stein Family Fellowship, Enhancing the life cycle of electricity transmission, PI (Spatari), co-PI (Yehuda Kahane, Tel Aviv University), 3/2014, $20,000.
- Drexel University, Institute for Energy and the Environment Seed Grant, *Planning for Deep Reductions in Carbon Emissions in Philadelphia by 2020*, PI (Gurian), co-PI (Aktan, Dilworth, Ellis, Haas, Hunold, Montalto, Spatari, Wen), $50,000.
- Water Environment Research Foundation, *Extraction of Lipids from Wastewater to Produce Biofuels*, PI (Cairncross); co-PIs (Olson, Spatari), 3/2014, $149,932.
- Drexel University, Urban Sustainability Institute (USI) grant, Evaluating the sub-acre farm, PI (Gurian); co-PI (Hunold, Spatari), $15,000.
- U.S. Department of Energy, *Novel Electro-Deoxygenation Process for Bio-oil Upgrading*, in Collaboration with Ceramatec (Lead), PI (Spatari-Drexel), 2/2013, $300,000.
- Drexel Office of the Provost and the Steinbright Career Development Center, Undergraduate Research Co-op support, $7,215.
- National Institute of Food and Agriculture (NIFA), U.S. Department of Agriculture, Lignocellulosic *Biomass Conversion to Infrastructure Compatible Fuel, Products and Power*, PI (Spatari), co-PI (Gurian), 10/1/2012 to 8/31/2016, $600,000.

- National Institute of Food and Agriculture (NIFA), U.S. Department of Agriculture, *Distributed On-Farm Bioenergy, Biofuels & Biochemicals (FarmBio3) Dev. & Production via Integrated Catalytic Thermolysis*, PI (Spatari), 10/1/2012 to 8/31/2016, $372,000.
- National Institute of Food and Agriculture (NIFA), U.S. Department of Agriculture, *NewBio*, PI (Spatari), 9/1/2012-8/31/2017, $187,000.
- National Science Foundation, REU Student support for grant, *Enhancing the Life Cycle of Plastic Pipes Through Nano-reinforcement*, (CMMI- 1258849), PI (Spatari), shared with co-PI's Grace Hsuan and Franco Capaldi, Drexel University, September 1, 2010-August 31, 2013, $6,000.
- Science Foundation, *Catalyzing New International Collaborations: The Use of Life Cycle Assessment (LCA) Methods in Geotechnical Engineering*, (CMMI- 1132960), PI (Gallagher), co-PI (Spatari, Bartoli), $32,130, October 2011 to September 2013.
- EPA P3: *Lightweight Green Roof Water Retention System*, SU835066, United States Environmental Protection Agency, PI (Spatari), $75,000, August 1, 2011 to July 31, 2015.
- National Science Foundation, REU Student support for grant, *Enhancing the Life Cycle of Plastic Pipes Through Nano-reinforcement*, (CMMI- 1030783), PI (Spatari), shared with co-PI's Grace Hsuan and Franco Capaldi, Drexel University, September 1, 2010-August 31, 2013, $6,000.
- Drexel Provost's Office Research Co-op, $7,052.50.
- United States Department of Agriculture, *Life Cycle GHG Emissions of Pyrolysis/Bio-Oil and Biochar Products*, PI (Spatari), October 1, 2010-September 31, 2011, $10,000.
- National Science Foundation, *Enhancing the Life Cycle of Plastic Pipes Through Nano-reinforcement*, (CMMI- 1030783) PI (Spatari), co-PI's (Hsuan, Capaldi), Drexel University, September 1, 2010-August 31, 2013, $265,056.
- AACC Travel grant and registration to attend the 2010 AACC International Annual Meeting, $1,448.
- National Academy of Engineering Travel grant to attend Frontiers of Engineering Meeting in Cambridge, UK, $1,500.
- DECI Internal award for, "Reducing Climate-Change Impact of the Information Age: Optimizing Data Center Operations", PI (Spatari), co-PI (Kandasamy, Wen, Ellis), $4000.
- DECI Internal award for, "The global carbon debt of 20th century urbanization: using computable general equilibrium models to measure the ecological footprint of land development" , PI (Spatari), co-PI: Richardson Dilworth (Dept. History and Politics) and Robert Stokes (Dept. of Culture and Communication), $4000.
- DECI Internal award for, "Producing Fuels from Landfill Wastes – Using Algae to Convert Landfill Gases and Landfill Leachate into Oil and Biodiesel", PI (Olson), co-PI: Richard Cairncross (Chemical and Biological Engineering), Grace Hsuan and Sabrina Spatari (CAEE), Susan Kilham (Biology), $4000.
- Osage Bioenergy, "Life Cycle Analysis of Winter Barley-to-Ethanol", PI (Spatari), August 15, 2009-December 31, 2010, $25,000
- Gigaton Throwdown, Clinton Global Initiative, conference travel support, $1,000
- Environ Consulting, gift, $1,000
- Edenspace Systems gift, 2009, $5,000

<u>Prior to Drexel</u>

- Natural Science and Engineering Research Council (NSERC), 2007-2009: $80,000 CDN
- Mineral Efficiency Research Group (MERG), 2005, $3000 CDN
- Ontario Graduate Scholarship (OGS), 2005/05-2006/04, $15,000 CDN
- University of Toronto Fellowship, annually from 2003-2006, $16,000 CDN
- Natural Science and Engineering Research Council (NSERC) Canada Postgraduate Scholarship, 01/01/2003-12/31/04, $45,000 CDN

PROPOSAL REVIEWING

2009-present: USDA NIFA, NSF, U.S. DOE, Dakota EPSCoR, SunGrant, Netherlands Organisation for Scientific Research (NWO), Portuguese Foundation for Science and Technology (FCT), Romanian National Research Council, EREF, Environmental Research and Education Foundation, USDA/DOE Biomass Research and Development Initiative (BRDI).

PROFESSIONAL AFFILIATIONS:

- Professional Engineer in the Province of Ontario, Canada
- Member of the American Chemical Society (ACS), the International Society for Industrial Ecology (ISIE), Society for Industrial Microbiology and Biotechnology (SIMB)
- Past Member of the American Institute for Chemical Engineering (AIChE), the Canadian Institute of Metallurgy (CIM), the Canadian Society for Chemical Engineering (CSChE), and the Transportation Research Board (TRB)

PROFESSIONAL ACTIVITIES

- Scientific committee for the ISIE-ISSST, 2017, 2015, 2013, 2011 : Science in Support of Sustainable and Resilient communities Conference, to be held in Chicago, IL in June 2017.
- On scientific committee for ISIE Socio-Economic Metabolism section conference, 2016, 2014.
- Invited chair and co-chair for 38th, 35th, Symposium on Biotechnology for Fuels and Chemicals, hosted by Oak Ridge National Laboratory.
- Invited technical committee and "Energy Systems and Sustainability" session co-organizer at the 65th Canadian Society for Chemical Engineering annual meeting.
- Invited discussion leader at the 2014 Industrial Ecology Gordon Conference, Lucca, Italy, June 1-6, 2014.
- Scientific committee, LCA XII, LCAX, 2012, 2010.
- Invited to be guest editor of special issue on applied systems analysis and sustainability in the journal *Stucture and Infrastructure Engineering*, 2011
- Expert Declarant: Asked by the State of California's Attorney General's Office to write a declaration on the status of cellulosic and advanced biofuels, December 17, 2010
- Peer reviewed over 150, 2000-present (15 in 2012-13 academic year) journal articles for: *Atmospheric Environment; Biomass and Bioenergy;Bioresource Technology; Biofuels; Bioresources; Climate and Development, Ecological Economics; Energy and Fuels; Environmental Science and Technology; Integrated Environmental Assessment and Management; Environmental Pollution; Global Change Biology Bioenergy (GCBB); International Journal of Life Cycle Assessment; Journal of Cleaner Production; Journal of Environmental Management; Journal of Industrial Ecology; Journal of Infrastructure Systems; Journal of Professional Issues in Engineering Education and Practice; Nature Climate Change; Resources, Conservation, and Recycling; Science; The Science of the Total Environment*, and *Waste Management*.

TEACHING

Technion, Israel Institute of Technology

019520 Advanced Subjects in Building Sciences: Environmental Life Cycle Assessment, Fall 2016
Green Design in the Built Environment, Proposed, Spring 2017

Drexel University:

ENGR 101, 102, 103 *Freshman Design*, Instructor, Fall (2011), Winter (2012), Spring (2012)
CIVE 790/380, *Industrial Ecology*, Instructor, graduate level, Fall 2010
CIVE 567, *Watershed Analysis*, co-Instructor with Dr. Paul Block, planned for 2011-2013
CIVE 790/380, *Environmental Life Cycle Assessment*, Instructor, graduate level, 2009-present, (in academic year 2008-09 titled, *Evaluating the Sustainability of Engineering Activities*), 2009, 2010, 2011, 2012, 2013
CIVE 240, *Engineering Economic Analysis*, Instructor, undergraduate level, 2009-present
CIVE 399, Directed Independent Research: Jonathan Hubler, Jonathan Istranyi, Alexander Stadel, Philip Stoltzfus
CIVE 799, CBE 799 Directed Graduate Research: Bahar Riazi, Lisa Peterson, James G. Mitchell, Paul Kohl, Secil Tutar, Ida Mannoh

University of Toronto:

CIV 1307, *Evaluating the Sustainability of Engineering Activities*, Co-instructor, Civil Engineering, graduate-level
APS 103, *Technology, Society, and the Environment*, Teaching assistant, Civil Engineering, undergraduate
CIV 101, *Statics and Vector Mechanics*, Teaching assistant, Civil Engineering, undergraduate

University of Michigan:

NRE 557, *Industrial Ecology*, Teaching Assistant, School of Natural Resources and Environment, graduate level

STUDENT SUPERVISION

Ph.D. Students Graduated:
Ghasideh Pourhashem, Ph.D. (June 2014)
Kimberlee A. Marcellus, Ph.D, co-supervised with Dr. Patricia Gallagher (January 2016)
Megan Hums, Ph.D., (June 2016), co-supervised with Dr. Richard Cairncross
Current Ph.D. Students:
Long Nguyen, Ph.D. (expected February 2017)
Ben Cohen, Ph.D., (expected 2017-18), co-supervised with Dr. A.E. Aktan
Yetunde Sorunmu, Ph.D., (expected 2016-17)
Lisa Peterson, Ph.D., (expected 2017-18)
Bahar Riazi, Ph.D., (expected 2018-19)
Saurajyoti Kar, Ph.D., (expected 2019-20)
Serving on PhD committees for students at The University of West Virginia and the University of Maine; hosting PhD student from University of California, Riverside and PhD student from University of Montevideo (Uruguay).

M.S. Students:
Christine M. Speers, M.S., (2015)
James G. Mitchell, M.S. (2014)
Feng Wenjuan, Visiting M.S. student from Peking University, Fall 2012

Undergraduate Research (B.S., B.S./M.S., independent study, REU Students):

Lenora Dieyi, B.S./M.S., Chemical and Biological Engineering	2017
Liliana Lobitan, B.S., Environmental Engineering	2016-17
David Hanrahan, B.S., Business School	2016
Becca Peltzman, B.S., Chemical Engineering	2014-15
Ivi Kusta, B.S. Civil Engineering	2014-15
Aswathi John, B.S., Biomedical engineering, undergraduate researcher	2013-16
Maxime Damis, B.S., undergraduate STAR fellow	2013
Gabrielle Arnold, REU co-op (co-advised with Y. Grace Hsuan and R. Cairncross)	2013
Eugene Prymak, Swarthmore College (collaboration with N. Macken)	2013
Joseph Keedy, Swarthmore College (collaboration with N. Macken)	2013
Michael Magee, B.S./M.S., architectural engineering (2013-14)	2013
Tania DeSouza, REU student (co-advised with M.S. Olson)	2012
Adam Cordi, REU student (co-advised with P. Gallagher)	2012
Monika Mikute, B.S./M.S., architectural engineering (2011-13)	2011-12
Secil Tutar, M.S., independent study	2012
Jonathan F. Hubler, BS/MS, (2011-12), REU co-op	2011
Brian Burnap, REU student	2011
Easar Forghany, REU student	2010
Samuel Steppes, BS/MS, (2011-12), undergraduate researcher	2010

Jonathan Istranyi, BS Civil, (2009-10), independent study with Anu Pradhan	2010
Phillip Stolzfus, BS Business and Engineering, independent study	2010
Alexander Stadel, BS/MS (2010-11), undergraduate researcher	2009-11

PRIOR WORK EXPERIENCE

- Post-Doctoral Scholar, Energy and Resources Group, University of California, Berkeley, CA, USA, October 1, 2007 – December 31, 2008.
- Researcher and Doctoral Candidate, Department of Civil Engineering, University of Toronto, Toronto, ON, Canada, January 1, 2003 – September 30, 2007.
- Research Engineer, Center for Industrial Ecology, School of Forestry and Environment, Yale University, New Haven, CT, USA, November 1, 2000 – December 31, 2002.
- Project Engineer, Five Winds International, Consulting, Guelph, ON, Canada, October 1999 – October 2000.
- Research Associate, Center for Sustainable Systems (CSS), The University of Michigan, Ann Arbor, MI, USA, June 1996 – August 1999.
- Project Engineer, Health and Environment Department, General Motors Corporation, Warren, MI, USA, June 1995 - June 1996.
  Research Assistant, Centre for Technology and Social Development, The University of Toronto, May 1993 - May 1995.

SCHOLARSHIPS, FELLOWSHIPS, HONOURS, AND AWARDS RECEIVED:

- Natural Science and Engineering Research Council (NSERC) Postdoctoral Fellowship (PDF), 2007-2009
- Mineral Efficiency Research Group (MERG), 2005/20
- Ontario Graduate Scholarship (OGS), 2005/05-2006/04
- University of Toronto Fellowship, 2003-2006
- Natural Science and Engineering Research Council (NSERC) Postgraduate Scholarship (PGSB), 2003/01-2004/12
- University of Windsor Fellowship, declined
- Graduate Student Instructorship (GSI), School of Natural Resources and Environment, University of Michigan, 1998/01-1998/04
- Graduate Student Research Assistantship (GSRA), School of Natural Resources and Environment, University of Michigan, 1996/09-1997/12
- Dean's Honour Roll, Applied Science and Engineering, The University of Toronto, 1995

LANGUAGES

English (native language)

French and Italian languages (intermediate)

Hebrew and German languages (beginner)