

Guiping Hu

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EDUCATIONAL BACKGROUND

Ph.D., Industrial Engineering, University of Pittsburgh, 2009
M. S., Industrial Engineering, University of Pittsburgh, 2006
B.E., Management Science, University of Science and Technology of China, 2004
B.S., Automation, University of Science and Technology of China, 2003

ACADEMIC POSITIONS

- Assistant Professor, Industrial and Manufacturing Systems Engineering, Graduate Program for Sustainable Agriculture, Bioeconomy Institute, Iowa State University, 2011-present
- Lecturer, Industrial and Manufacturing Systems Engineering, Iowa State University, 2009 - 2011

HONORS, RECOGNITIONS, AND OUTSTANDING ACHIEVEMENTS

Nominated for Institute of Industrial Engineers' "Dr. Hamed K. Eldin Outstanding Early Career IE in Academia Award", 2014
CleanTech Fellowship Award, 2011
Book Scholarship Award, 2006
Meeting of the Minds Competition Award, Great Global Sustainability Challenge, 2006
Best Engineering Award, Asia-Pacific Robot Contest, 2003

RESEARCH GRANTS

21. Airplane Painting Capacity & Planning Tool, *Boeing Analytics Research Scholars Program*, 10/15/15-11/15/16, co-Principal Investigator (co-PI). Total: \$79,408, my share: \$19,852.
20. FactBoard: Real-Time Data Driven Visual Decision Support System for the Factory Floor, *Digital Manufacturing and Design Innovation Institute*, 12/15/15-12/15/17, Principal Investigator (PI). Total: \$2,537,893, my share: \$394,169.
19. Real-time Shop Floor Production Planning and Optimization under Uncertainty, *NSF Center for e-Design*, 8/16/15-8/15/17, PI. Total: \$80,000, my share: \$40,000.
18. Data Driven Highway Infrastructure Resilience Assessment, *Midwest Transportation Consortium*, 8/16/15-8/15/17, PI. Total: \$200,000, my share: \$100,000.
17. Agent-Based Modeling for the Behavior and Decisions of the Stakeholders along the Biofuel Supply Chain, *Bioeconomy Institute*, 8/16/14-8/15/15, PI. Total: \$33,000, my share: \$33,000.
16. Data Driven Highway Infrastructure Resilience Assessment, *Midwest Transportation Consortium*, 8/15/14-8/15/15, PI. Total: \$50,000, my share: \$30,000.

15. Integrated Sustainable Bioenergy Pathway, *Baker Council*, 1/1/14-12/31/17, co-Principal Investigator (co-PI). Total: \$1,480,000, my share: \$370,000.
14. System analysis and optimization design for manufacturing supply chain, *NSF Center for e-design*, 1/1/14-12/31/15, PI. Total: \$100,000, my share: \$60,000.
13. Comparing the Relationship between Systems Engineering Processes and Project Success in Commercial and Government Research and Development Efforts, *National Aeronautics and Space Administration (NASA)*, 10/1/12-5/31/14, co-PI. Total: \$40,000, my share: \$13,400.
12. System analysis and optimization design for manufacturing supply chain, *NSF Center for e-design*, 9/1/12-12/31/13, PI. Total: \$44,000, my share: \$44,000.
11. Iowa Sustainable Energy Pathway (ISEP): Building a team to address the complete biofuels supply chain, *Plant Science Institute*, 7/1/12-6/30/13, co-PI. Total: \$50,000, my share: \$10,000.
10. DOE PNNL ISU Joint TEA analysis for the thermochemical pathways, *Department of Energy*, 10/1/12-9/30/13, PI. Total: \$100,000, my share: \$70,000.
9. Travel grant for faculty on energy policy analysis, *NSF Iowa EPSCoR*, 5/1/12- on going, PI. Total: \$24,000, my share: \$24,000.
8. Experiments, Technoeconomics and Optimization of Bioenergy Systems based on Bio-oil Gasification, *Iowa Energy Center*, 7/1/12-6/30/15, co-PI. Total: \$467,573, my share: \$116,893.
7. Graduate student fellowship on renewable energy policy analysis, *NSF Iowa EPSCoR*, 5/1/12-9/1/12, PI. Total: \$22,950, my share: \$22,950.
6. International Collaboration on Bioenergy System Analysis, *ISU IMSE Innovation Initiative*, 4/1/12-7/1/12, PI. Total: \$10,000, my share: \$5,000.
5. Department of Energy PNNL ISU Joint TEA analysis for advanced biofuel production, *Department of Energy*, 10/1/11-9/30/12, PI. Total: \$100,000, my share: \$70,000.
4. Signature Program on Bioenergy System Analysis: Mathematical Modeling and Optimization Infrastructure for Emerging Biorenewable Energy Systems, *Bioeconomy Institute*, 7/1/11- annual renewal, PI. Total: \$30,000, my share: \$10,000.
3. Cheap Sugars for Sustainable Biofuels Production - Brazil vs. U.S., *Biobased Industry Center*, 7/1/11-6/30/12, PI. Total: \$25,000, my share: \$12,500.
2. Techno-economic, lifecycle analysis on bioenergy pathways, *Bioeconomy Institute*, 7/1/11-6/30/13, PI. Total: \$150,000, my share: \$150,000.
1. Mapping Potential Foodsheds in Iowa: A System Optimization Modeling Approach, *Leopold Center for Sustainable Agriculture*, 2/1/10-1/31/12, PI. Total: \$74,825, my share: \$20,496.

TEACHING EXPERIENCE

- IE312 Optimization, Iowa State University, Fall 2015
- IE514 Production Scheduling, Iowa State University, Spring 2013, Spring 2014, and Spring 2015
- IE515x Markov Decision Processes, Iowa State University, Spring 2012
- IE305 Engineering Economic Analysis, Iowa State University, Fall 2009, Fall 2010, Spring 2011, Fall 2011, Fall 2012, Fall 2013, and Fall 2014
- SCM301 Supply Chain Management, Iowa State University, Fall 2010
- LSCM360 Logistics and Supply Chain Management, Iowa State University, Summer 2010
- Engr160 Engineering Problem Solving with Computer Applications, Iowa State University, Spring 2009, Fall 2009, Spring 2010, Fall 2010, and Fall 2013
- Plus 3 China, University of Pittsburgh and Tsinghua University, Summer 2007

JOURNAL PUBLICATIONS (504 CITATIONS AS OF 1/2016)

†: graduate student under my supervision

‡: student not under my supervision

*: publication undergone stringent peer review

38: Shiyang Huang, Guiping Hu, Carrie Chennault, Liu Su, Elke Brandes, Emily Heaton, Lisa Schulte, Lizhi Wang, and John Tyndall, “An Agent-Based Simulation Model of Farmer Decision Making on Bioenergy Crop Adoption”, *Energy*, in press, 2016.

37: * †Yugang Yu, †Xiaoya Han, and Guiping Hu, “Optimal production for manufacturers considering consumer environmental awareness and green subsidies,” *International Journal of Production Economics*, in press, 2016.

36: * †Zhengyang Hu, and Guiping Hu, “A two-stage stochastic programming model for lot-sizing and scheduling under uncertainty,” *International Journal of Production Economics*, in press, 2016.

35: * †Qi Li and Guiping Hu, “Techno-economic analysis of biofuel production considering logistic configurations,” *Bioresource Technology*, 206 (2016): 195-203, 2016.

34: *†Mostafa Fawzy, Paul Componation, and Guiping Hu, “Stakeholders' requirements assessment for biofuel production,” *International Journal of Science and Research*, in press, 2015.

33: * ‡Yong Ye, Nan Liu, Guiping Hu, and Sha-lei Zhan, “Follow-up sharing character-based optimal scheduling of resource distribution for post-event response in large-scale disasters,” *Journal of System Science and System Engineering*, in press, 2015.

32: * †Yihua Li, Guiping Hu, and Mark Wright, “An optimization model for sequential fast pyrolysis facility location-allocation under RFS2,” *Energy*, in press, 2015.

- 31: * †Yihua Li, Chung-Li Tseng, and Guiping Hu, “Is now a good time for Iowa to invest in cellulosic biofuels?: A Real Options approach considering construction lead times,” *International Journal of Production Economics*, Vol 167, 97-107, 2015.
- 30: * †Qi Li, †Yanan Zhang, and Guiping Hu, “Techno-economic analysis of advanced biofuel production based on bio-oil gasification,” *Bioresource Technology*, Vol 191, 88-96, 2015.
- 29: * †Narges Kazemzadeh and Guiping Hu, “Evaluation of the impacts of governmental policies on the biofuels supply chain design under uncertainty,” *International Journal of Sustainable Economy*, Vol 7, Issue 3, 203-219, 2015.
- 28: * †Qi Li and Guiping Hu, “Supply chain design under uncertainty for advanced biofuel production based on bio-oil gasification,” *Energy*, Vol 74, 576-584, 2014.
- 27: * †Yanan Zhang, Guiping Hu, and Robert Brown, “Life cycle assessment of commodity chemicals production from forest residue via fast pyrolysis,” *The International Journal of Life Cycle Assessment*, Vol 19 (7), 1371-1381, 2014.
- 26: * ‡Rajeeva Tilakaratne, ‡Tristan Brown, †Yihua Li, Guiping Hu, and Robert Brown, “Mild catalytic pyrolysis of biomass for production of transportation fuels: a techno-economic analysis”, *Green Chemistry*, vol 16, 627-636, 2014.
- 25: * †Yanan Zhang, Guiping Hu, and Robert Brown, “Integrated supply chain design for commodity chemicals production via woody biomass fast pyrolysis and upgrading”, *Bioresource Technology*, in press, 2014.
- 24: * †Longwen Ou, ‡Tristan Brown, ‡Rajeeva Thilakaratne, Guiping Hu, and Robert Brown, “Techno-economic Analysis of Co-located Corn Grain and Corn Stover Ethanol Plants”, *Biofuels, Bioproducts and Biorefining*, in press, 2014.
- 23: * Guiping Hu, Lizhi Wang, Yihsu Chen, and Bopaya Bidanda, “An Oligopoly Model to Analyze the Market and Social Welfare for Green Manufacturing Industry”, *Journal of Cleaner Production*, in press, 2014.
- 22: * †Mohammad Rahdar, Lizhi Wang, and Guiping Hu, “Potential competition for biomass between biopower and biofuel under RPS and RFS2,” *Applied Energy*, in press, 2014.
- 21: * †Leilei Zhang, Guiping Hu, Lizhi Wang, and Yihsu Chen, “A Bottom-up Biofuel Market Equilibrium Model for Policy Analysis”, *Annals of Operations Research*, in press, 2013.
- 20: * †Narges Kazemzad, and Guiping Hu, “Optimization models for biorenewable supply chain network design under uncertainty”, *Journal of Renewable and Sustainable Energy*, in press, 2013.
- 19: * †Leilei Zhang, and Guiping Hu, “Supply chain design and operational planning models for biomass to drop-in fuel production”, *Biomass and Bioenergy*, in press, 2013.

- 18: * †Yihua Li, ‡Tristan Brown, and Guiping Hu, “An optimization model for a thermochemical biofuel supply chain network design”, *Journal of Energy Engineering*, in press, 2013.
- 17: * †Yanan Zhang, Guiping Hu, and Robert Brown, “Life cycle assessment for hydrogen and transportation fuels production from corn stover via fast pyrolysis”, *Environmental Research Letters*, Vol 8, 2013.
- 16: * ‡Tristan Brown, †Rajeeva Tilakaratne, Robert Brown, Guiping Hu, “Regional differences in the economic feasibility of advanced biorefineries: fast pyrolysis and hydroprocessing”, *Energy Policy*, vol 57, 234-243, 2013.
- 15: * †Yanan Zhang, ‡Tristan Brown, Guiping Hu, and Robert Brown, “Comparative technoeconomic analysis of biohydrogen production via bio-oil gasification and bio-oil reforming”, *Biomass and Bioenergy*, vol 51, 99-108, 2013.
- 14: * †Yanan Zhang, ‡Tristan Brown, Guiping Hu, and Robert Brown, “Techno-economic analysis of fast pyrolysis and upgrading facilities employing two depolymerization pathways”, *Chemical Engineering Journal*, vol 225, 895-904, 2013.
- 13: * †Minwen Yang, Guiping Hu, “Market competition and social welfare analysis for E10 and E85 with a game theory model”, *International Journal of Sustainable Economy*, Vol. 5, No. 4, 2013.
- 12: * ‡Tristan Brown, †Rajeeva Tilakaratne, Robert Brown, Guiping Hu, “Techno-economic analysis of biomass to transportation fuels and electricity via fast pyrolysis and hydroprocessing”, *Fuel*, 463-469, 2013.
- 11: * †Yanan Zhang, ‡Tristan Brown, Guiping Hu, and Robert Brown, “Technoeconomic analysis of mono-saccharide production via biomass fast pyrolysis”, *Bioresource Technology*, 358-365, 2013.
- 10: * ‡Martin Gaussin, Guiping Hu, Sepideh Abolghasem, Saurabh Basu, Ravi Shankar, Bopaya Bidanda, “Assessing the environmental footprint of manufactured products: a survey of current literature”, *International Journal of Production Economics*, Vol 146, Issue 2, 2013.
- 9: * Guiping Hu, “Market and Social Welfare Analysis for Hybrid Sustainable Manufacturing Industry,” *International Journal of Sustainable Manufacturing*, Vol.2, No.4, pp.338 - 355, 2012.
- 8: * ‡Tristan Brown, Yanan Zhang, Guiping Hu, Robert Brown, “Techno-economic analysis of integrated catalytic processing”, *Biofuels, Bioproducts and Biorefining*, Vol. 6, No. 1, pp. 73-87, 2012.
- 7: * ‡Tristan Brown, Guiping Hu, “Sensitivity analysis of government incentive programs for drop-in biofuel production via fast pyrolysis”, *Journal of Energy Engineering*, Vol. 137, No. 2, pp. 54-62. 2012.

- 6: * Guiping Hu, Lizhi Wang, Susan Arendt, and Randy Boeckenstedt, "Assess the self-sustainability potential of food demand in the Midwestern United States with a linear programming model", *Journal of Agriculture, Food Systems, and Community Development*, Vol 2 (1), pp. 1-13, 2011.
- 5: * Guiping Hu, Lizhi Wang, Susan Arendt, and Randy Boeckenstedt, "Analyze sustainable, localized food production system with a systematic optimization model", *Journal of Hunger and Environmental Nutrition*, 6:220-232, 2011.
- 4: * # Guiping Hu, Lizhi Wang, Bopaya Bidanda, "A Game Theory Model to Analyze Market Competition in Sustainable Production Industry," *International Journal of Sustainable Manufacturing*, Vol 2 (2), pp. 161-179, 2011.
- 3: * # Guiping Hu, Lizhi Wang, and Bopaya Bidanda, "A market analysis on green production lines penetrating into original equipment manufacturers (OEMs)," *International Journal on Sciences of Industrial and Systems Engineering and Management*, vol. 3(3), p. 28-48, 2009.
- 2: * # Guiping Hu, Bopaya Bidanda, "Modeling sustainable product lifecycle decision support systems," *International Journal for Production Economics*, Vol. 122 (1), 366-375, 2009.
- 1: * # Guiping Hu, Lizhi Wang, Bopaya Bidanda and Steve Fetch, "A Multi-objective approach to project selection with Six Sigma criteria," *International Journal of Production Research*, 46(23), p. 6611-6625, 2008.

BOOK CHAPTER

Guiping Hu, Lizhi Wang, Bopaya Bidanda, "Sustainable manufacturing & project management circa 2025," Book Chapter, Project Management Circa 2025, 2009.

CONFERENCE PROCEEDINGS

22. Alexandra Olsen and Guiping Hu, "Analysis of surgery scheduling policies using discrete event simulation," Industrial and Systems Engineering Research Conference, May 2016.
21. Alexandra Olsen and Guiping Hu, "Statistical methods for surgery duration estimation," Industrial and Systems Engineering Research Conference, May 2016.
- 20: * †Yihua Li, and Guiping Hu, "A sequential fast pyrolysis facility location-allocation model", APMS International Conference: Advances in Production Management Systems: Sustainable Production and Service Supply Chain, Sept. 2013.
- 19: * †Qi Li, and Guiping Hu, "An optimization model for advanced biofuel production based on bio-oil gasification", APMS International Conference: Advances in Production Management Systems: Sustainable Production and Service Supply Chain, Sept. 2013.
18. Chung-Li Tseng, †Yihua Li, and Guiping Hu, "Water efficient technology adoption considering climate change: a real options approach", Smart Water International Conference, November 2013.

17. Paul J. Componation, Michael Dorneich, Guiping Hu, Phillip A. Farrington, and Jordan L. Hansen, "Systems engineering and project success in government and commercial organization", American Society for Engineering Management, October 2013.
16. Paul Componation, Michael Dorneich, Guiping Hu, and Gillian Nicholls, "Applying alternative decision-making approaches to a complex supplier selection problem", Industrial and Systems Engineering Research Conference, May 2013.
15. Guiping Hu, Randy Boeckenstedt, Bopaya Bidanda, "Measuring transportation dependency for customer centric manufacturing", The 45th CIRP Conference on Manufacturing Systems: The Challenge for the Manufacturing for the Future, Athens, Greece, May 2012.
14. ‡Sepideh Abolghasem, Guiping Hu, Bopaya Bidanda, Ravi Shankar, Saurabh Basu, "Sustainable design and manufacturing by mapping microstructure from severe shear deformation in machining", The 14th IFAC Symposium on Information Control for Smarter Manufacturing, Bucharest, Romania, May 2012.
13. Susan Arendt, Guiping Hu, Lizhi Wang and Randy Boeckenstedt, "Localizing food production and purchasing for schools", Food and Nutrition Conference and Expo, San Diego, CA, Sept 2011.
12. Guiping Hu, and Bopaya Bidanda, "An Oligopoly Model to Analyze the Market and Social Welfare for Green Manufacturing Industry", proceedings of International Conference on Production Research, Stuttgart, Germany, July 2011.
11. Guiping Hu, Matt Liebman, and Craig Chase, "A systematic optimization model for integration of crop and livestock systems", Proceedings of the Industrial Engineering Research Conference, Reno, Nevada, May 2011.
10. Guiping Hu, Lizhi Wang, Susan Arendt, and Randy Boeckenstedt, "A systematic optimization model for foodshed localization", Proceedings of the Industrial Engineering Research Conference, Reno, Nevada, May 2011.
9. ‡Martin Gaussin, Guiping Hu, Ravi Shankar, and Bopaya Bidanda, "Assessing the environmental footprint of manufactured products: a survey of current literature", proceedings of International Conference on Production Research, Shanghai, China, July 2009.
8. # Guiping Hu, and Bopaya Bidanda, "A product upgrade decision model for sustainable manufacturing", Proceedings of the Industrial Engineering Research Conference, Miami, Florida, May 2009.
7. # Guiping Hu, and Bopaya Bidanda, "Modeling sustainable product lifecycle decision support systems," Proceedings of International Conference on Production Research, Chile, July 2007.
6. # Guiping Hu, Lizhi Wang, Yan Wang and Bopaya Bidanda, "A new model for closed loop product lifecycle systems," Proceedings of the Industrial Engineering Research Conference, Nashville, May 2007.

5. # Guiping Hu, Lizhi Wang, and Bopaya Bidanda, "Project portfolio selection for implementing lean and six sigma concepts," Proceedings of the Industrial Engineering Research Conference, Nashville, May 2007.
4. # Guiping Hu, Lizhi Wang, and Bopaya Bidanda, "A game theoretic model of the market competition between green and ordinary products," Proceedings of the Industrial Engineering Research Conference, Nashville, May 2007.
3. Guiping Hu, Yan Wang, and Bopaya Bidanda, "Product lifecycle management systems for network-centric manufacturing," Proceedings of Industrial Engineering Research Conference, Orlando, May 2006.
2. Guiping Hu, Yan Wang, and Bopaya Bidanda, "Product lifecycle management challenges in trans-national environments," Proceedings of Industrial Engineering Research Conference, Orlando, May 2006.
1. Lizhi Wang, Guiping Hu and Zengfu Wang, "Pitch detection based on time-frequency analysis," Intelligent Control and Automation, Fifth World Congress on Volume 4, 15-19 June 2004 Page(s):3022-3026.

CONFERENCE PRESENTATIONS

76. †Alexandra Manbeck and Guiping Hu, "Analysis of Surgery Scheduling Policies Using Discrete Event Simulation," Industrial and Systems Engineering Research Conference, May 2016.
75. †Qi Li, Guiping Hu, Zaki Jubery, and Baskar Ganapathysubramanian, "A Customized Precision Farm Management Model," Industrial and Systems Engineering Research Conference, May 2016.
74. †Alexandra Manbeck and Guiping Hu, "Statistical methods for surgery duration estimation," Industrial and Systems Engineering Research Conference, May 2016.
73. †Qi Li and Guiping Hu, "Enhanced techno-economic analysis for advanced biofuel production considering supply chain configurations," Invited talk, INFORMS Annual Meeting, Philadelphia, PA, 2015.
72. ‡Liu Su, Lizhi Wang, and Guiping Hu, "Robust Optimization for Network Design Problems with Equilibrium Flows," Invited talk, INFORMS Annual Meeting, Philadelphia, PA, 2015.
71. †Shiyang Huang and Guiping Hu, "Big data in bioenergy supply chain," Invited talk, INFORMS Annual Meeting, Philadelphia, PA, 2015.
70. ‡Liu Su, Lizhi Wang, and Guiping Hu, "Integrated sustainable bioenergy pathways: an agent based modeling approach," Invited talk, INFORMS Annual Meeting, Philadelphia, PA, 2015.
69. †Shiyang Huang and Guiping Hu, "An agent-based model for farmers' behavior and biomass supply analysis," Invited talk, INFORMS Annual Meeting, Philadelphia, PA, 2015.

68. †Qi Li, Guiping Hu, and Baskar Ganapathysubramanian, “An optimization model for precision farm management considering water resources,” INFORMS Annual Meeting, Philadelphia, PA, 2015.
67. †Yihua Li, Chung-Li Tseng, and Guiping Hu, “A real options approach to study investment timing for cellulosic biofuels considering construction lead time,” INFORMS Annual Meeting, Philadelphia, PA, 2015.
66. †Mohammad Rahdar, Guiping Hu, Lizhi Wang, and Dave Sly, “Real-time data driven visual decision support system for the factory floor,” INFORMS Annual Meeting, Philadelphia, PA, 2015.
65. †Mohammad Rahdar, Lizhi Wang, and Guiping Hu, “An inventory model for a manufacturing supply chain with uncertain demand and lead time,” INFORMS Annual Meeting, Philadelphia, PA, 2015.
64. †Leilei Zhang, Yihsu Chen, and Guiping Hu, “A bottom-up equilibrium model for emerging advanced biofuel market,” Invited talk, INFORMS Annual Meeting, Philadelphia, PA, 2015.
63. †Mohammad Rahdar, Lizhi Wang, and Guiping Hu, “A robust optimization inventory model with uncertain demand and lead time,” Industrial and Systems Engineering Research Conference, May 2015.
62. †Leilei Zhang, Guiping Hu, and Yihsu Chen, “Impacts of flexible fuel vehicles in imperfectly competitive biofuel markets,” Industrial and Systems Engineering Research Conference, May 2015.
61. †Qi Li and Guiping Hu, “Supply chain design under uncertainty for advanced biofuel production based on bio-oil gasification,” Invited talk, INFORMS Annual Meeting, San Francisco, CA, 2014.
60. †Yihua Li, Guiping Hu, and Mark Wright, “Sequential location-allocation optimization of fast pyrolysis facilities,” Invited talk, INFORMS Annual Meeting, San Francisco, CA, 2014.
59. ‡Liu Su, Lizhi Wang and Guiping Hu, “Integrated sustainable bioenergy pathways: an agent based modeling approach,” Invited talk, INFORMS Annual Meeting, San Francisco, CA, 2014.
58. †Qi Li and Guiping Hu, “Enhanced techno-economic analysis for advanced biofuel production,” INFORMS Annual Meeting, San Francisco, CA, 2014.
57. †Yihua Li, Guiping Hu, and Chung-Li Tseng, “Fast pyrolysis facility investment valuation via a real options approach,” INFORMS Annual Meeting, San Francisco, CA, 2014.
56. †Leilei Zhang and Guiping Hu, “An agent-based model to analyze the emerging advanced biofuel supply chain,” Invited talk, INFORMS Annual Meeting, San Francisco, CA, 2014.
55. †Mohammad Rahdar, Lizhi Wang, and Guiping Hu, “A robust optimization inventory model with uncertain demand and lead time,” INFORMS Annual Meeting, San Francisco, CA, 2014.

54. †Leilei Zhang, Guiping Hu, and Yihsu Chen, "A bottom-up equilibrium model for emerging advanced biofuel market," Invited talk, INFORMS Annual Meeting, San Francisco, CA, 2014.
53. †Nazanin Zinouri, and Guiping Hu, "Improving facility supply chain efficiency through storage and routing optimization," Invited talk, INFORMS Annual Meeting, Minneapolis, MN, 2013.
52. †Qi Li, and Guiping Hu, "Production scheduling for fast pyrolysis fractionation with lot-sizing", Invited talk, INFORMS, Minneapolis, MN, 2013.
51. †Yihua Li, Guiping Hu, and Chung-Li Tseng, "Valuation of fast pyrolysis pathway via real options approach", Invited talk, INFORMS, Minneapolis, MN, 2013.
50. †Longwen Ou, Guiping Hu, and Robert Brown, "Optimal design and operational planning for co-located ethanol plant", Invited talk, INFORMS, Minneapolis, MN, 2013.
49. †Yanan Zhang, Guiping Hu, and Robert Brown, "Integrated supply chain design for commodity chemicals production via woody biomass fast pyrolysis", Invited talk, INFORMS, Minneapolis, MN, 2013.
48. †Leilei Zhang, Guiping Hu, Yihsu Chen, and Lizhi Wang, "A bottom-up biofuel market equilibrium model for policy analysis", Invited talk, INFORMS, Minneapolis, MN, 2013.
47. †Mohammad Rahdar, Lizhi Wang, and Guiping Hu, "Potential competition of biomass between biopower and biofuel under RPS and RFS2", Invited talk, INFORMS, Minneapolis, MN, 2013.
46. †Narges Kazemzadeh, and Guiping Hu, "Biorefinery supply chain network design under uncertainty and evaluation of the impacts of policies", Invited talk, INFORMS, Minneapolis, MN, 2013.
45. †Qi Li, and Guiping Hu, "An optimization model for advanced biofuel production based on bio-oil gasification", Invited talk, INFORMS, Minneapolis, MN, 2013.
44. †Yihua Li, and Guiping Hu, "Sequential facility location-allocation for fast pyrolysis biofuel production network", Invited talk, INFORMS, Minneapolis, MN, 2013.
43. †Longwen Ou, †Yihua Li, Tristan Brown, Guiping Hu, and Robert Brown, "Techno-economic analysis of production of hydrocarbons from pyrolytic sugars", The International Conference on Thermochemical Conversion Science, Chicago, Sept. 2013.
42. †Yanan Zhang, Tristan Brown, Guiping Hu, and Robert Brown, "Cheap sugars for sustainable biofuel production", International Conference on Thermochemical Conversion Science, Chicago, Sept. 2013.
41. †Qi Li, and Guiping Hu, "An optimization model for advanced biofuel production based on bio-oil gasification", APMS International Conference: Advances in Production Management Systems: Sustainable Production and Service Supply Chain, Sept. 2013.

40. †Yihua Li, and Guiping Hu, “A sequential fast pyrolysis facility location-allocation model”, APMS International Conference: Advances in Production Management Systems: Sustainable Production and Service Supply Chain, Sept. 2013.
39. †Qi Li, and Guiping Hu, “Supply chain design for advanced biofuel production based on bio-oil gasification”, Euro-INFORMS, July 2013.
38. †Nazanin Zinouri, Guiping Hu, “An optimal material handling vehicle routing in a manufacturing facility to minimize travel time and flow congestion”, Industrial and Systems Engineering Research Conference, May 2013.
37. †Yihua Li, Guiping Hu, “Valuation of fast pyrolysis facility with real options approach”, Industrial and Systems Engineering Research Conference, May 2013.
36. Paul Componation, Michael Dorneich, Guiping Hu, and Gillian Nicholls, “applying alternative decision-making approaches to a complex supplier selection problem”, Industrial and Systems Engineering Research Conference, May 2013.
35. †Leilei Zhang, and Guiping Hu, "A supply chain management and operational planning model for biomass to drop-in fuel", Invited talk, INFORMS, Phoenix, AZ, 2012.
34. Lizhi Wang, and Guiping Hu, "Potential competition of biomass for bioelectricity and biofuel under renewable portfolio standards", Invited talk, INFORMS, Phoenix, AZ, 2012.
33. †Narges Kazemzadeh, and Guiping Hu, "An optimization model of biomass supply chain networks under uncertainty", Invited talk, INFORMS, Phoenix, AZ, 2012.
32. †Yihua Li, and Guiping Hu, "An optimization model for the facility sizing and location of thermochemical biofuel production", Invited talk, INFORMS, Phoenix, AZ, 2012.
31. †Yanan Zhang, Tristan Brown, Guiping Hu, Robert Brown, “Techno-economic analysis of fast pyrolysis and upgrading facilities employing two depolymerization pathways”, AICHE, Pittsburgh, 2012.
30. Tristan Brown, Rajeeva Tilakaratne, Guiping Hu, and Robert Brown, “Quantifying the microeconomic impacts of state-level incentive programs on biorefineries”, AICHE, Pittsburgh, 2012.
29. Rajeeva Tilakaratne, †Yihua Li, Tristan Brown, Guiping Hu, and Robert Brown, “Techno-economic analysis of biomass catalytic pyrolysis”, AICHE, Pittsburgh, 2012.
28. Lizhi Wang, Guiping Hu, and Yihsu Chen, “A game theory model for biofuel market competition", Invited talk, International INFORMS, Beijing, China, June, 2012.
27. Leilei Zhang, and Guiping Hu, “optimizing the sizes and location of fast pyrolysis facility in Midwestern states", Invited talk, International INFORMS, Beijing, China, June, 2012.

26. †Minwen Yang, and Guiping Hu, “An analysis of the RINs and blenders' credits for biofuel market under RFS2”, Invited talk, International INFORMS, Beijing, China, June, 2012.
25. †Narge Kazemzadeh, and Guiping Hu, “An optimization model of biomass supply chain networks under uncertainty”, Invited talk, International INFORMS, Beijing, China, June, 2012.
24. Guiping Hu, Mark Wright, Ross Morrow, Yanan Zhang, and Robert Brown, “Costs and emissions of optimal Midwestern pretreatment and upgrading biofuel technologies”, Invited talk, International INFORMS, Beijing, China, June, 2012.
23. †Yihua Li, Tristan Brown, and Guiping Hu, “An MILP model for decentralized biofuel production networks”, Invited talk, International INFORMS, Beijing, China, June, 2012.
22. Guiping Hu, Lizhi Wang, Susan Arendt, and Randy Boeckenstedt, “Analyze sustainable, localized food production system with a systematic optimization model”, Invited talk, INFORMS, Charlotte, NC, Nov. 2011.
21. Katrina Christiansen, Guiping Hu, Raj Raman, “Comparison of algal production systems with framework for evaluation of biomass energy feedstocks (FEBEF)”, Algae Biomass Summit, Oct. 2011.
20. Susan Arendt, Guiping Hu, Lizhi Wang and Randy Boeckenstedt, “localizing food production and purchasing for schools,” Invited Oral Presentation, Food and Nutrition Conference and Expo, San Diego, CA, Sept. 2011.
19. Tristan Brown, †Yanan Zhang, Guiping Hu, and Robert Brown, “Cost of commodity chemicals from biomass via pyrolysis and thermolytic depolymerization pathways”, The International Conference on Thermochemical Conversion Science, Chicago, Sept. 2011.
18. †Yanan Zhang, Tristan Brown, Guiping Hu, and Robert Brown, “Cheap sugars for sustainable biofuel production”, International Conference on Thermochemical Conversion Science, Chicago, Sept. 2011.
17. Katrina Christiansen, Guiping Hu, Raj Raman, “Techno-economic and life-cycle analysis of algal production systems,” Invited oral presentation (less than 10% of the submissions), First International Conference on Algal Biomass, Biofuels and Bioproducts, July 2011.
16. Guiping Hu, and Bopaya Bidanda, “An Oligopoly model to analyze the market and social welfare for green manufacturing industry”, International Conference on Production Research, Stuttgart, Germany, July 2011.
15. Guiping Hu, Lizhi Wang, Susan Arendt, and Randy Boeckenstedt, “A systematic optimization model for foodshed localization”, Invited talk, Industrial Engineering Research Conference, Reno, Nevada, May 2011.
14. Guiping Hu, Matt Liebman, and Craig Chase, “A systematic optimization model for integration of crop and livestock systems,” Industrial Engineering Research Conference, Reno, Nevada, May 2011.

13. Susan Arendt, Guiping Hu, Lizhi Wang, and Randy Boeckenstedt, "Stakeholders inputs to foodshed model development in Iowa," Industrial Engineering Research Conference, Reno, Nevada, May 2011.
12. Guiping Hu, Katrina Christiansen, Raj Raman, and Robert Anex, "A modeling framework to evaluate greenhouse gas emissions from multiple biomass feedstocks", Invited talk, Industrial Engineering Research Conference, Reno, Nevada, May 2011.
11. Raj Raman, Guiping Hu, Robert Anex, and Katrina Christiansen, "An Excel-based modeling framework to evaluate greenhouse gas emissions from multiple biomass feedstocks", Annual International Meeting for American Society for Agricultural and Biological Engineers(ASABE), Pittsburgh, PA, June 2010.
10. #Guiping Hu, and Bopaya Bidanda, "A Product Upgrade Decision Model for Sustainable Manufacturing," Invited talk, Industrial Engineering Research Conference, Miami, Florida, May 2009.
9. #Guiping Hu, Lizhi Wang, and Bopaya Bidanda, "Can Green Products Survive in the Market Competition?" INFORMS General Meeting, Seattle, November 2007.
8. #Guiping Hu, Lizhi Wang, and Bopaya Bidanda, "A growth model of green products under oligopoly market equilibrium," poster presentation, Industrial Engineering Research Conference, Nashville, May 2007.
7. #Guiping Hu, Lizhi Wang, Yan Wang, and Bopaya Bidanda, "A new model for closed-loop product lifecycle systems," Industrial Engineering Research Conference, Nashville, Tennessee, May 2007.
6. #Guiping Hu, Lizhi Wang, Bopaya Bidanda, and Steven Fetch, "Project portfolio selection for implementing lean and six sigma concepts," Industrial Engineering Research Conference, Nashville, Tennessee, May 2007.
5. #Guiping Hu, Yan Wang, and Bopaya Bidanda, "A Markov decision process model for closed-loop product lifecycle systems," Engineering Graduate Student Organization Poster Fair, March 2007.
4. #Guiping Hu, Lizhi Wang, Yan Wang, and Bopaya Bidanda, "Modeling close-loop supply chain systems with stochastic dynamic programming methodology," INFORMS General Meeting, Pittsburgh, November 2006.
3. Guiping Hu, Yan Wang, and Bopaya Bidanda, "Broadening the scope of product lifecycle management system for implementation in global environment," INFORMS International Conference, Hong Kong, June 2006.

2. Guiping Hu, Yan Wang, and Bopaya Bidanda, "Product lifecycle management systems for network-centric manufacturing," Industrial Engineering Research Conference, Orlando, Florida, May 2006.

1. Guiping Hu, Yan Wang, and Bopaya Bidanda, "Product lifecycle management challenges in transnational environments," Industrial Engineering Research Conference, Orlando, Florida, May 2006.

PROFESSIONAL SERVICE

Public Service

- President, Engineering Economy Division, Institute of Industrial Engineers, 2016-2017.
- Program Chair, Engineering Economy Division, Institute of Industrial Engineers, 2015-2016.
- Communication Director, Engineering Economy Division, Institute of Industrial Engineers, 2014-2015.
- NSF review panelist, 2009, 2010, 2012

Service to Disciplinary and Professional Societies or Associations

- Chair, Energy, Natural Resources, and the Environment (ENRE) best paper award, Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting, 2016
- Track chair, Engineering Economy, ISERC, 2016
- Committee, Energy, Natural Resources, and the Environment (ENRE) best paper award, Institute for Operations Research and the Management Sciences (INFORMS) Annual Meeting, 2015
- Track Chair, Energy, Industrial and Systems Engineering Research Conference (ISERC), 2015
- Session Chair, "Stochastic Modeling and Application," ISERC, 2015
- Session Chair, "Biofuel Supply Chain and Market," INFORMS Annual Meeting, 2014
- Track chair, Engineering Economy, Industrial and Systems Engineering Research Conference (ISERC), 2014
- Session Chair, "Real Options/EDA", INFORMS Annual Meeting, 2013
- Session Chair, "Renewable Energy and Biofuel Supply Chain", INFORMS Annual Meeting, 2013
- Session Chair, "Biofuel Supply Chain Design and Environmental Analysis", INFORMS Annual Meeting, 2013
- Session Chair, "Scheduling in Health Care and Renewable Energy", INFORMS Annual Meeting, 2013
- Session Chair, "Sustainable Manufacturing and Supply Chain Management for Renewable Energy", Invited session, APMS, 2013
- Session Chair, "Joint Session ENRE-Environment & Sustainability/Energy: Biofuel Production and Supply Chain Management", INFORMS Annual Meeting, 2012
- Session Chair, "Biofuel Supply Chain Management and Operational Planning", INFORMS Annual Meeting, 2012

- Member, ENRE best paper award committee, INFORMS Annual Meeting, 2013
- Track chair, Social, Environmental and Sustainability, ISERC, 2012
- Cluster Chair, Energy, Natural Resources and the Environment, INFORMS International Meeting, 2012
- Session chair, Industrial Engineering Research Conference, 2011
- Session Chair, “Economics, Supply Chain and Logistics Analysis of Biofuels”, INFORMS Annual Meeting, 2011
- Session chair, Industrial Engineering Research Conference, 2007

Journal Referee:

- *Applied Energy*
- *Bioresource Technology*
- *Chemical Engineering Science*
- *Computers and Industrial Engineering*
- *Energy, The International Journal*
- *Energy and Fuels*
- *Energy Economics*
- *Energy Journal*
- *Environmental Science and Technology*
- *IEEE Transactions on Industrial Informatics*
- *IEEE Transactions on Power Systems*
- *International Journal of Electrical Power and Energy Systems*
- *International Journal of Production Economics*
- *International Journal of Production Research*
- *International Journal of Sustainable Economy*
- *Journal of Agriculture, Food Systems, and Community Development*
- *Journal of Cleaner Production*
- *Journal of Concurrent Engineering*
- *Journal of Energy Engineering*
- *Journal of Industrial Ecology*
- *Management Decision*
- *Management Science*
- *Sustainability*

University/Campus Service

- IMSE department chair search committee, fall 2015
- Honors Program Committee, College of Engineering, 2014 – present
- Graduate committee, IMSE department, 2014 – present
- Public Relations committee, IMSE department 2011 – present
- Faculty Advisory Board, Bioeconomy Institute, 2011-2013
- Organizing committee, Energy System Analysis workshop, August 2011
- Organizing committee, Aviation Fuel Initiative, March 2012