

## VITA

### I. PERSONAL DATA

Name: Kyung Jo Min  
Address: Industrial and Manufacturing Systems Engineering  
3004 Black Engineering, 294-8095  
Graduate Faculty Status: Member

### II. EDUCATION

Ph.D. University of California, Berkeley, Industrial Engineering and  
Operations Research, May 1990  
M.S. University of California, Berkeley, Industrial Engineering and  
Operations Research, Dec. 1985  
B.S. Summa Cum Laude, University of California, Los Angeles,  
Math-Systems Science, June 1984

### III. ACADEMIC EXPERIENCE

**Associate Chair, Director of Undergraduate Education, IMSE  
Department, Iowa State University, 2014-present**  
**John B. Slater Fellow of Sustainable Design and Manufacturing, Iowa  
State University, 2019-Present**  
Director of Undergraduate Studies, IMSE Department, Iowa State  
University, 2002-2014  
Associate Professor, Iowa State University, 1996-present  
Assistant Professor, Iowa State University, 1990-1996  
Research Assistant, University of California, Berkeley, 1987-1989  
Teaching Assistant, University of California, Berkeley, 1985-1989

### IV. INDUSTRIAL AND OTHER NON-ACADEMIC EXPERIENCE

Graduate Student Internship, California Public Utilities Commission  
Telecommunication Operations Cost Branch, April 1988-August 1988

### V. HONORS AND AWARDS

ISU Engineering Student Council Leadership Award, 2005  
Sigma Xi Honor Society, ISU  
Phi Kappa Phi Honor Society, ISU  
University of California, Berkeley, Regent Fellowship (1984-1985)  
Phi Beta Kappa Honor Society, UCLA

## VI. ACADEMIC AREAS OF SPECIALIZATION

### **Teaching:**

IE 304, Analysis of Engineering Economy, (1993F)

IE 312, Optimization, (1991S; 1992S, F; 1993S; 1997S, F)

**IE 341, Production Systems**, (1994S, F; 1995S, F; 1996S, F; 1998F; 1999S, F; 2000S, F; 2001S; 2002S; 2003S; 2004S, F; 2005F; 2006F; 2007F; 2008F; 2009F; 2010F; 2011F; 2012F; 2013F; 2014F; 2015F; 2016F; 2017F; 2018F-2 Sections; 2019F-on campus and online sections; **2020F-on campus and online sections** )

IE 403, Introduction to Sustainable Production Systems, (2005F; 2007S; 2009S; 2011S; 2013S; 2015S; 2017S; 2019S)

**IE 405, Advanced Engineering Economy for Complex Engineering Projects**, (2015F; 2016S; 2017S; 2018 S; **2020S**)

IE 421X/IE422X, International Lean Manufacturing Production Systems and Lean Manufacturing Production Systems, (2007S, 2008S)

IE 490C, Independent Study on Quantitative Supply Chains, (2002F, 41 students); 2003S(6 students) &F (7 students).

IE 501, Dynamics and Economics of Production, (1990F; 1991F)

IE 503, Introduction to Sustainable Production Systems, (2005F; 2007S; 2009S; 2011S; 2013S; 2015S; 2017S; 2019S)

**IE 505, Advanced Engineering Economy for Complex Engineering Projects**, (2015F; 2016S; 2017S; 2018S; **2020S**)

IE 508, Design and Analysis of Allocation Mechanisms, (1991S; 1992S; 1993S; 1994S; 1996S; 1997S; 1998S; 1999S; 2000S; 2001S; 2002S; 2003S; 2004S; 2006F, 2008F, 2010F, 2012F; 2014F)

IE 514, Production Scheduling (1998S)

**IE 541, Inventory Control and Production Planning**, (1991F; 1992F; 1993F; 1995S, F; 1996F; 1997F; 1998F; 1999F; 2000F; 2001F; 2002F, 2003F; 2005S; 2006S; 2008S; 2010S; 2012S (including Dual Degree Section in Cedar Rapids); 2014S; 2016S; 2018S; **2020S**)

IE 631, Nonlinear Programming, (1990S; 2007F; 2009F; 2011F; 2013F)

### Course/Curriculum Development

IE 405/505, “Advanced Engineering Economy for Complex Engineering Projects,” a dual-listed course, Fall 2015.

IE 403/503, “Introduction to Sustainable Production Systems,” a dual-listed course, Fall 2005.

IE 508, “Design and Analysis of Allocation Mechanisms,” a graduate course, Spring 1991.

IE 501, “Dynamics & Economics of Production,” a graduate course, F 1990.

**Research Areas:**

**Economic Decision-Making under Uncertainty (Real Options – Applications to Energy Systems, Supply Chains, Sustainability, Engineering Projects, Design and Manufacturing).**

Pricing, Costing, and Allocation Mechanisms and Policies  
Production and Service Systems

Teaching and Learning of Economic Decision-Making under  
Uncertainty – Visual and Other Aids

VII. GRANTS AND CONTRACTS

**- Current:**

**Principal Investigator, “Distributed Solar and Wind Power Generation Planning in Rural and Underserved Areas,” with Cam MacKenzie, \$243,036, Iowa Energy Center, 4/1/20-3/31/22.**

**Co-Principal Investigator, “Cross-Industry Utilization of Ground Tire Rubber for Energy Efficient Pavements,” with R. C. Williams, E. Cochran, G. Kremer, \$415,000, REMADE Institute, 10/1/19-9/30/21.**

**Co-Principal Investigator, “Design Iteration Support Tool to Sustain Remanufacturability,” with G. Kremer, M. Frank, and C. Hu, \$249,250, REMADE Institute, 8/26/20-8/25/22.**

**Principal Investigator, “Quantified Financial Risk Reduction towards Sustainable Clean Power Grid,” IMSE Exploratory Research Projects Program, \$9,000, Iowa State University, 5/16/20-8/15/20.**

**- Past**

Principal Investigator, “Solving Emerging Engineering Problems for a Climate-Changed World,” with Matt Frank and Rick Stone, \$15,000, IMSE Teaching and Learning Seed Grant, Iowa State University, Summer 2019.

Principal Investigator, “The Teaching Materials on Non-Monetary

Performance Measures for Production Systems Decisions,” with John Jackman, \$2,000, IMSE Teaching and Learning Small Grant, Iowa State University, Summer 2019.

Principal Investigator, “Blockchain-Based Acquisition System for Public Sectors,” with J. Jackman, \$22,108, CoE Exploratory Research Projects Program, College of Engineering, Iowa State University, 5/16/18-12/31/18.

Principal Investigator, “Real Options Valuation of “Ilities” in Blockchain: For-Profit Supply Chains Case,” with J. Jackman, \$14,847, IMSE Exploratory Research Projects Program, Department of Industrial and Manufacturing Systems Engineering, Iowa State University, 8/16/18-12/31/18.

Co-Principal Investigator, “Product Architecture Customization Decision Support Tool Development for End-of-Life Options and Servitization Potential,” with G. Kremer and K. Park, \$30,000, eDesign Center, IUCRC, National Science Foundation, January 2017-June 2018.”

Principal Investigator, “Critical Life-Cycle Decision Making in Complex Engineering Projects for Engineering Economy Courses,” with Jackman, \$250,000, National Science Foundation, August 2015-July 2018; Supplementary Research Experiences for Undergraduates (REU): Visualization Aids for Education of Decision Making in Complex Projects, \$32,100, September 2016-July 2018.

Co-Principal Investigator, “Generation Expansion Planning: Portfolio Optimization,” with J. McCalley and S. Ryan, \$150,000, Electric Power Research Center, ISU, August 2008-May 2011.

Principal Investigator, “Critical Investigation of Reduce, Reuse, and Recycle (3R) Policies: A Market-Based Environmental Sustainability Study toward Expanded Economic Liberty,” \$50,000, Searle Freedom Trust, October 2008-June 2010.

Min, “World Class Logistics Assessment,” \$ 13,273, Pella Corporation and IPRT, ISU, March-June 2009.

Principal Investigator, “A Comparative study for a global production network,” with Potter, Deere and IPRT, April 2007-August 2007, \$21,071.

Principal Investigator, “Productivity Assessment and Improvement of

Rockwell Facilities in Iowa,” Rockwell and IPRT, January 2007-July 2007, \$22,263.

Principal Investigator, “Citizen-Based Assessment and Improvement of E-Government Services for Small and Medium-Sized Communities in Midwestern States,” Sloan Foundation, Co-PI’s, Ryan, Jackman, and Patterson, July 2005-June 2007, \$45,000.

Co-Principal Investigator, “ISU/Industry Kaizen Pilot Program,” with L. Potter and F. Peters, John Deere Foundation, \$4,662, January 2006-June 2006.

Co-Principal Investigator, “IMSE International Kaizen Course Development,” with F. Peters and L. Potter, Council on International Programs, ISU, \$9,000 (including \$4,000 matching from Engineering International Programs & Services), January 2006-June 2006.

Principal Investigator, “A Course Project on Global Supply Chains for Trinational Bilingual Student Teams,” Council on International Programs, ISU, \$6,000 (including \$1,000 matching from IMSE Department), January 2005-June 2005.

Principal Investigator, “Internet Voting in Rural Communities,” Carnegie Corporation, November 2003-June 2005, \$15,000.

Principal Investigator, “E-Government in Rural Communities: Current Practices and Issues,” IBM Endowment for The Business of Government, May-October 2003, \$15,000.

Principal Investigator, “An Exploratory Study on the Size/Quantity of the Reels for Three Representative Chips,” Rockwell Coralville and CATD-ICAP, May 2002-January 2003, \$3,343.

Principal Investigator, “Workforce Scheduling System for Airline and Airport Operations,” Sciengistics and CATD-TCAP, February-September 2002, \$30,594.

Principal Investigator, “Workforce Scheduling System for Airline and Airport Operations,” Sciengistics and CATD-TCAP, February-September 2002, \$30,594.

Principal Investigator, “Economic Development Strategies Based on Emerging Technology: The Case of Rural Internet Development,” US

Department of Commerce, July 2000–June 2002, \$15,000.

Principal Investigator, “Technology Investment in Rural Communities and Its Impact on Standard Living,” Vice Provost for Research and Advanced Studies, January 2001-May 2002, \$9,900.

Principal Investigator, “Evaluation of Printed Circuit Board (PCB) Assembly Strategies,” CATD-ICAP for Rockwell Coralville, July 2001-February 2002, \$2,343.

Principal Investigator, “Workforce Scheduling Methods for Airline and Airport Operations,” CATD-ICAP for Sciengistics, October 2001 - December 2001, \$2,343.

Co-Principal Investigator, “An Enabling System for Market-Driven Collaborative Product Design and Recycling,” National Science

Foundation, with S. Ryan, P. Egbelu, D. Gemmill, A. Qamhiyah, D. Jacobson, and S. Olafsson, August 2000 – December 2001, \$180,002.

Principal Investigator, “Line and Facility Planning via Goal Programming,” CATD-ICAP for Rockwell - Coralville, September 2000 – June 2001, \$2,215.

Principal Investigator, “Capital Budgeting Projects Risk Management for Electric Utilities Under Competition,” Electric Power Research Institute/MidAmerican Energy, January 1999-December 2000, \$58,000.

Principal Investigator, “Exploration of the SIMNET II Package for Material Handling at Lennox,” CATD-ICAP for Lennox - Marshalltown, June 2000 – August 2000, \$2,152.

Principal Investigator, “Optimal Production Line Layout and Strategic Analysis,” Rockwell – Coralville/CATD-IIP, August 1999 – August 2000, \$26,010.

Principal Investigator, “Optimal Production Line Design and Analysis,” CATD-ICAP for Rockwell – Coralville, July 1999 – February 2000, \$2,152.

Principal Investigator, “Exploration and Classification of Outsourcing Data,” CATD-ICAP for Rockwell –Cedar Rapids, July 1999, \$2,152.

Principal Investigator, "Capital Budgeting Analyses for Electric Utilities under Competition," EPRC/MidAmerican Energy Program and Power Affiliate Program, Electric Power Research Center, Iowa State University, August 1996-May 1999, \$21,300.

Principal Investigator, "An Integrated Resource Planning Model under Competition," EPRC/MidAmerican Energy Program, Electric Power Research Center, Iowa State University, January 1997-December 1998, \$15,000.

Principal Investigator, "Test Scheduling Model and Analysis," Square D Company/CATD-IIP/ICAP, June-August 1998, \$10,977.

Principal Investigator, "Simplifying the Prediction of Labor Hours Needed for a Project," NSF-GOALI, with M. Scheldrup, M. Stevens, and S. Larson, July 1996-July 1998, \$16,715 (substituted for S. Filipowski when she left Iowa State University in July 1996).

Principal Investigator, "A Productivity Study on Seed Plant Operation and Staffing," Pioneer Hi-Bred International, Johnston, Iowa, December 1995-December 1997, total of \$6,000 plus all travel-related expenses.

Principal Investigator, "NSF-GOALI, Matching Funds from Rockwell Collins Avionics & Communications Division," with M. Scheldrup, M. Stevens, and S. Larson, June 1996-May 1997, \$3,820 (substituted for S. Filipowski when she left Iowa State University in July 1996).

Principal Investigator, "Economic Quantification of Critical Factors and Capital Budgeting for Electric Utilities," Electric Power Research Center, Iowa State University, July 1995-December 1996, \$16,895.

Principal Investigator, "A Capital Budgeting System for Electric Utilities," Power Affiliate Program Support, Electric Power Research Center, Iowa State University, January 1995-December 1996, \$12,510.

Principal Investigator, "Design and Analysis of Economic Quantification Procedures for Utility Application," Midwest Power - A Midwest Resources Utility, Des Moines, Iowa, June-December 1995, \$5,288.

Principal Investigator, "Efficient Allocation of Electric Power Via Trilateral Brokerage," Electric Power Research Center, Iowa State University, December 1993-May 1995, \$12,850.

Principal Investigator, "Optimally Locating Repair Units for Power Failure," Power Affiliate Program Support, Electric Power Research Center, Iowa State University, August 1992-May 1994, \$11,880.

Principal Investigator, "Economic Determination of Specification Levels and Delivery Priorities for Semiconductor Products," NSF Research Initiation Grant, Division of Design and Manufacturing, Program of Operations Research and Production Systems, August 1991-May 1994, \$55,286; "Research Experiences for Undergraduates (REU) for NSF Research Initiation Grant", Division of Design and Manufacturing, Program of Operations Research and Production Systems, February 1992-January 1993, \$5,250.

Co-principal Investigator, "Manufacturing Fellows Program in Concurrent Engineering Design," Department of Education, with J. Jackman, W. Kuo, D. Gemmill, R. Linn, and R. Pandit, 1991-1994, \$300,315.

Principal Investigator, "Undergraduate Fellowship on Optimal Determination of Production Quantity and Demand Rate under Competition," Iowa Center for Emerging Manufacturing Technology, November 1992-October 1993, \$2,000.

Principal Investigator, "Undergraduate Fellowship on Economic Determination of Spec. Levels and Delivery Priorities of Semiconductor Products," Iowa Center for Emerging Manufacturing Technology, December 1991-May 1993, \$2,000.

Principal Investigator, "Priority Pricing for Electric Power," Power Affiliate Program Support, Electric Power Research Center, Iowa State University, August 1990-May 1993, \$22,500.

Principal Investigator, "Capital Investment Model on Setup and Inventory Holding Cost Reduction under Competition," Engineering Research Institute Grant, Iowa State University, September 1991-May 1992, \$4,300.

Principal Investigator, "Concurrent Design of Production/ Inventory Control and Pricing Mechanism," Engineering Research Institute Grant, Iowa State University, September 1990- May 1991, \$3,950.

Principal Investigator, "Optimal Specification Design for Semiconductor Products," University Research Grant, Iowa State University, May 1990-May 1991, \$2,900.

Principal Investigator, "Priority Pricing of Shared Resources – An Efficient Allocation Mechanism," Engineering Research Institute Grant, Iowa State University, January 1990-May 1990, \$1,350.

**- Pending**

**Principal Investigator, "Visualization Aids for Enhanced Teaching and Learning of Stochastic Optimal Control Applications," \$16,000, IMSE Exploratory Research Projects Program, Iowa State University, 1/1/21-5/15/21. (Awarded)**

**Principal Investigator, "Blockchain for Contracting at the Speed of Relevance," with Cam MacKenzie, \$110,000, Department of Defense Acquisition Research Program, 1/1/21~12/31/21. (Technical Proposal Pending)**

## VIII. TECHNICAL PUBLICATIONS

### Refereed Journals:

**Min, K. J., L. Lilienkamp, J. Jackman, and C. Wang, 2020, "Supply Contracts for Technology-Oriented Critical Materials of High Volatility and Their Ramifications for Supply Chains," *The Engineering Economist*, Vol. 65, pp. 266-287.**

**Kucusayacigil, F. and K. J. Min, 2020, "A Lattice Method for Jump-Diffusion Process Applied to Transmission Expansion Investments under Demand and Distributed Generation Uncertainties," *Energy Systems*, <https://doi.org/10.1007/s12667-020-00385-w> (online published).**

**Zhao, Z. and K. J. Min, 2020, "Traceability Valuation in Blockchain-Based Supply Chains for Perishable Agricultural Products Under Demand Uncertainty," *International Journal of Operations Research and Information System*, Vol. 11, pp. 1-32.**

**Wang, C. H. and K. J. Min, 2020, "Transition from Coal-Based to Natural Gas-Based Power Plants under Market-Based Permits for Carbon Dioxide Emission: A Real Options Approach," *International Journal of Sustainable Economy*, Vol. 12, pp. 344-363.**

**Malladi, S., W. Shi, Z. Zhao, and K. J. Min, 2020, "The Impacts of Product Life and Recyclability on Landfill Disposal in Closed Loop Supply Chains," *International Journal of Sustainable Economies Management*, Vol. 9, pp. 59-77.**

- Kucuksayacigil, F. and K. J. Min, 2018, "Expansion Planning for Transmission Network under Demand Uncertainty: A Real Options Framework," *The Engineering Economist*, Vol. 63, pp. 20-53.
- Shi, W., Tianke Feng, and K. J. Min, 2016, "Remanufacturing Decision and Sustainability Under Product Life Cycle Uncertainty," *The Engineering Economist – Special Issue on Engineering Economics and Sustainable Systems*, Vol. 61, pp. 223-243.
- Shi, W. and K. J. Min, 2015, "Remanufacturing Decisions and Implications under Material Cost Uncertainty," *International Journal of Production Research – Special Issue on Green Manufacturing*, Vol. 53, pp. 6421-6435.
- Shi, W. and K. J. Min, "Product Remanufacturing: A Real Options Approach," *IEEE Transactions on Engineering Management*, Vol. 61, pp. 237-250, 2014.
- Shi, W. and K. J. Min, "Product Remanufacturing and Replacement Decisions Under Operations and Maintenance Cost Uncertainties," *The Engineering Economist - Special Issue on Engineering Economics in Reliability, Replacement and Maintenance*, Part 1, Vol. 59, pp. 154-174, 2014.
- Wang, C. and K. J. Min, "Electric Power Plant Valuation Based on Day-Ahead Spark Spreads," *The Engineering Economist*, Vol. 58, pp. 157-178, 2013.
- Shi, W. and K. J. Min, "A Study of Product Weight and Collection Rate in Closed-Loop Supply Chains with Recycling," *IEEE Transactions on Engineering Management*, Vol. 60, pp. 409-423, 2013.
- Min K. J., J. Jackman, and D. Gemmill, "Assessment and Evaluation of Objectives and Outcomes for Continuous Improvement of an Industrial Engineering Program," *International Journal of Engineering Education*, Vol. 29, pp. 520-532, 2013.
- Daniel, S., C. Lou, and K. J. Min, "Economic Models for Cogeneration Facilities and Host Utilities under the Right to Sell Provision," *Electric Power Systems Research*, Vol. 103 pp. 214– 222, 2013.

- Min, K. J., C. Lou, and C. Wang, "An Exit and Entry Study of Renewable Power Producers: A Real Options Approach," *The Engineering Economist*, Vol. 57, pp. 55-75, 2012.
- Wang, C. and K. J. Min, "Improving Financial Performance with Hedging via Forwards for Electric Power Generation Companies," *The Engineering Economist*, Vol. 55, pp. 246–267, 2010.
- Wang, C. and K. J. Min, "Short-Term Electric Power Trading Strategies for Portfolio Optimization," *The Engineering Economist*, Special Issue on Energy Economics, Vol. 53, pp. 365-379, 2008.
- Li, J., K. J. Min, T. Otake, and Van Voorhis, "Inventory and Investment in Setup and Quality Operations under Return on Investment Maximization," *European Journal of Operational Research*, Vol. 185, pp. 593-605, 2008.
- Ball, P., H. Grierson, K. J. Min, J. Jackman, and P. Patterson, "Working on an Assignment With People You'll Never Meet: Case Study on Learning Operations Management in International Teams," *International Journal of Engineering Education*, Vol. 23, pp. 368-377, 2007.
- Wang, C. and K. J. Min, "Electric Power Generation Planning for Inter-Related Projects: A Real Options Approach," IEEE Transactions on Engineering Management, Vol. 53, pp. 312-322, 2006.
- Malladi, S. and K. J. Min, "Decision Support Models for the Selection of Internet Access Technologies in Rural communities," Telematics and Informatics, Vol. 22, pp. 201-219, 2005.
- Kim, S. C. and Min, K. J., "Determining Multi-Criteria Priorities in the Planning of Electric Power Generation: The Development of an Analytic Hierarchy Process for Using the Opinions of Experts," International Journal of Management, Vol. 31, pp. 186-193, 2004.
- Cahyadi, R., Min, K. J., Wang, C., and Abi-Samra, N., "Generation Unit Selection via Capital Asset Pricing Model for Generation Planning," International Journal of Energy Research, Vol. 27, pp. 1251-1263, 2003.
- Min, K. J. and Subramaniam, P.S., "A Generation Expansion Model for Electric Utilities with Stochastic Stranded Cost," International Journal of Electric Power & Energy Systems, Vol. 24, pp. 875-885, 2002.

- Otake, T. and Min, K. J., "Inventory and Investment in Quality Improvement under Return on Investment Maximization," Computers & Operations Research, Vol. 28, pp. 997-1012, 2001.
- Subramaniam, P. S. and Min, K. J., "A Chance Constrained Capital Investment Decision Model for Electric Utilities," Journal of Engineering Valuation and Cost Analysis, Vol. 3, pp. 437-447, 2000.
- Wang, C. and Min, K. J., "Generation Planning with Quantified Outage Costs," Electric Power Systems Research, Vol. 54, pp. 37-46, 2000.
- Srinivas, D. and Min, K. J., "A Simplified Procedure for Estimating Labor-Hour Requirements of Discrete Assemblies," International Journal of Management, Vol. 17, pp. 224-230, 2000.
- Chen, C. and Min, K. J., "Optimal Inventory Policies in Response to a Pre-announced Sale," International Journal of Operations and Quantitative Management, Vol. 5, pp. 151-169, 1999.
- Otake, T., Min, K. J., and Chen, C., "Inventory and Investment in Setup Operations Under Return on Investment Maximization," Computers & Operations Research, Vol. 26, pp. 883-899, 1999.
- Wang, C. and Min, K. J., "An Integrated Resource Planning Model for Utilities with Quantified Outage Costs," International Journal of Electric Power & Energy Systems, Vol. 20, No. 8, pp. 517-524, 1998.
- Yao, M. and Min, K. J., "Repair Unit Location Models for Power Failures," IEEE Transactions on Engineering Management, Vol. 45, pp. 57-65, 1998.
- Son, H. and Min, K. J., "A Capital Budgeting Process for Electric Power Utilities - An Analytic Hierarchy Process Approach," International Journal of Energy Research, Vol. 22, pp. 671-681, 1998.
- Chen, C. and Min, K. J., "A Trilateral Brokerage System for Power Transactions," International Journal of Energy Research, Vol. 21, pp. 911-921, 1997.
- Soesilo, D. and Min, K. J., "An Inventory Model with Variable Levels of Quality Attributes via Geometric Programming," International Journal of Systems Science, Vol. 27, pp. 379-386,

1996.

Chen, C. and Min, K. J., "Optimal Inventory and Disposal Policies in Response to a Sale," International Journal of Production Economics, Vol. 42, pp. 17-27, 1995.

Chen, C. and Min, K. J., "A Competitive Inventory Model with Options to Reduce Setup and Inventory Holding Costs," Computers and Operations Research, Vol. 22, pp. 503-514, 1995.

Min, K. J. and Oren, S. S., "Economic Determination of Spec. Levels and Allocation Priorities of Semiconductor Products," IIE Transactions - IE Research, Vol. 27, pp. 321-331, 1995.

Chen, C., Johnson, K., and Min, K. J., "Analyses of Sensitivity and Competition of an EOQ Model," International Journal of Systems Science, Vol. 26, pp. 1559-1570, 1995.

Chen, C. and Min, K. J., "A Multi-Product EOQ Model with Pricing Consideration - T. C. E. Cheng's Model Revisited," Computers and Industrial Engineering, Vol. 26, pp. 787-794, 1994.

Chen, C. and Min, K. J., "An Analysis of Optimal Inventory and Pricing Policies under Linear Demand," Asia-Pacific Journal of Operational Research, Vol. 11, pp. 117-129, 1994.

Min, K. J., "Inventory and Pricing Policies under Competition," Operations Research Letters, Vol. 12, pp. 253-261, 1992.

Min, K. J., "Inventory and Quantity Discount Pricing Policies under Profit Maximization," Operations Research Letters, Vol. 11, pp.187-193, 1992.

Chen, C. and Min, K. J., "Optimal Selling Quantity and Purchasing Price for Intermediary Firms," International Journal of Operations and Production Management, Vol. 11, pp. 64-68, 1991.

**- Journal Manuscript Submitted/Revised/Under Review**

**Kucuksayacigil, F. and K. J. Min, "The Value of Jumboization for Military Transportation Ships: A Real Options Approach," under a second review, *IISE Transactions*.**

**Min, K. J. and J. Jackman, "Engineering Economic Valuation of Flexible Design for Transportation Vehicles under Fuel Cost Uncertainty, under a second review, *The Engineering Economist*.**

**Valenzuela, K., W. Shi, Z. Zhao, and K. J. Min, "Impacts of Government Incentives and Fees on Closed-Loop Supply Chains with Remanufacturing", in revision for a second review, *International Journal of Industrial and Systems Engineering*.**

**Lou, C., and K. J. Min, "Repowering and Exit Decisions for Renewable Power Producers: A Real Options Approach", under review, *Renewable Energy Focus*.**

**Lou, C., and K. J. Min, "Renewable Power Plant Repowering Under Policy and Cost Uncertainties", under review, *International Journal of Sustainable Engineering*.**

**Refereed Proceedings Papers:**

**Wang, C. and K. J. Min, 2020, "Optimal Reserve Margins for Electric Power Utility Companies," Proceedings of the 2020 IISE Annual Conference, New Orleans, LA, Online October 2020 (Presenter: Wang).**

**Zhao, Z., McCloskey, M., Sackpraseuth, A., Jackman, J., and Min, K. J. 2020, "Decision Support for Arctic Area Infrastructures under Changing Climate and Uncertainty," Proceedings of the 2020 IISE Annual Conference, New Orleans, LA, Online October 2020 (Presenter: Zhao).**

**Zhao, Z., F. Niayeshpour, J. Jackman, and K. J. Min, "Set Design Valuation for Transportation Vehicles under Fuel Cost Volatility," Proceedings of the 2020 IISE Annual Conference, New Orleans, LA, Online October 2020 (Presenter: Zhao).**

**Zhao, Z., J. Jackman, and K. Jo Min, 2019, "Engineering Economic Valuation of Ready-Made Design for Transportation Vehicles," *Proceedings of International Conference on Engineering and Technology*, Albany, New York (Presenter: Min).**

**Zhao, Z., J. Jackman, and K. Jo Min, 2019, "Logistic Depot Planning under Repair and Maintenance Cost Uncertainties under Changing Climate," *Proceedings of International Conference on Engineering and Technology*, Albany, New York (Presenter: Min).**

Min, K. J., J. Jackman, and Z. Zhao, 2018, "Work in Progress: Visual and Tactile Aids in Multidisciplinary Engineering for Better Learning Outcomes," *Proceedings of ASEE Annual Conference & Exposition*, Salt Lake City, Utah (Presenter: Jackman).

Min, K. J., J. Jackman, and F. Niayeshpour, 2018, "Enhancing Critical Life-Cycle Decision Making in Complex Engineering Projects in the Context of Engineering Economy Courses," NSF Poster Session Paper, *Proceedings of ASEE Annual Conference & Exposition*, Salt Lake City, Utah (Presenter: Min).

Kucuksayacigil, F. and K. J. Min, 2017, "Value of Jumboization in Ship Design: A Real Options Approach," *Proceedings of the 2017 Industrial and Systems Engineering Conference*, Pittsburgh, PA (Manufacturing and Design Division Best Track Paper, 2nd Place).

Croghan, J., K. J. Min, and J. Jackman, 2017, "Estimation of Geometric Brownian Motion Parameters for Oil Price Analysis," *Proceedings of the 2017 Industrial and Systems Engineering Conference*, Pittsburgh, PA.

Min, K. J., J. Jackman, and M. Zugg, 2017, "Economic Decision Making for Projects under High Volatility," *Proceedings of the 2017 Industrial and Systems Engineering Conference*, Pittsburgh, PA.

Min, K. J., J. Jackman, and M. Zugg, 2017, "Visualization Aids for Abstract Concepts Towards Better Learning Outcomes," *Proceedings of the Frontiers in Education Conference*, Indianapolis, IN.

Min, K. J., J. Jackman, and M. Zugg, "Critical Life-Cycle Decision Making for Projects under Uncertainty," Engineering Economy Division, *Proceedings of ASEE Annual Conference & Exposition*, New Orleans, Louisiana, June 2016.

Min, K.J., J. Jackman, and J. Chan, "Visual Models for Abstract Concepts towards Better Learning Outcomes and Self-Efficacy," Educational Research and Methods Division, *Proceedings of ASEE Annual Conference & Exposition*, Indianapolis, Indiana, June 2014.

Lou, C. and K. J. Min, "Effect of Planning Horizon on Repowering Decisions of Renewable Power Producers," *Proceedings of the second Annual Conference on Global Economics, Business, and Finance (GEBF)*, Hong Kong, December 2012.

Min, K. J. and W. Shi, "Learning Improvement in Leadership, Teamwork, and Contemporary Issues through a Global Supply Chain Project," (Speaker: Min) *Proceedings of ASEE Annual Conference and Exposition*, Vancouver, British Columbia, Canada, June 2011.

Lou, C. and K. J. Min, "Policy Implications of Production Tax Credit (PTC) and Renewable Portfolio Standard (RPS) on Electric Power Industry: The Case of Negative Correlation between the Fuel Price and PTC Level," (Speaker: Min) *Proceedings of Conference on Economics, Business and Marketing Management*, Shanghai, China, March 2011.

"Closed-Loop Supply Chain Models under Government Incentives and Fees," with Valenzuela (Speaker: Valenzuela), *IERC Proceedings*, Cancun, Mexico, June 2010.

"Closed-Loop Supply Chains with Governmental Incentives and Fees," with Valenzuela (Speakers: Min and Valenzuela), *The Manufacturing and Service Operations Management Society Conference, Extended Abstract Proceedings*, TA3-177, pp. 1-6, MIT Sloan School of Management, Cambridge, MA, June 2009.

Potter, L., J. Jackman, K. J. Min, and M. Search, "A New Engineering Communications Course Based on a Professional Communications Process," (Speaker: Potter), *ASEE Proceedings*, Pittsburgh, Pennsylvania, June 2008.

Min, K. J., "Short-term Electric Power Trading Strategy for Portfolio Optimization," with Wang (Speaker: Wang), *IERC Proceedings*, Nashville, Tennessee, May 2007.

Min, K. J., "Citizen-Based Assessment and Improvement of E-Government Services for Small and Medium-Sized Communities," with Jackman, Ryan, Patterson, Wingerter, Bailey, and Trede (Speakers: Min and Jackman), *Proceedings of 8th Annual International Digital Government Research Conference (dgo 2007)*, Philadelphia, Pennsylvania, May 2007.

Min, K. J., "Effecting Improvement in an Industrial Engineering Program by Applying Outcome Assessment Results," with Potter and Peters (Speaker: Potter), *ASEE Proceedings*, Honolulu, Hawaii, June 2007.

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Infrastructure Decisions and Policies in Arctic Regions under Global Warming,” Poster Session, Arctic Futures 2050, Washington DC, September 2019.

Min, K. J., J. Jackman, F. Niayeshpour, and Z. Zhao (Speaker: K. J. Min), “Blockchain Valuation for Supply Chains,” Industrial and Systems Engineering Conference, Orlando, FL, May 2019.

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Min, K. J., J. Jackman, G. Kremer, F. Niayeshpour, and Z. Zhao (Speaker: K. J. Min), “Valuation of Design Changeability in Transportation Vehicles and Infrastructures under Uncertainties,” Industrial and Systems Engineering Conference, Orlando, FL, May 2018.

Min, K. J., J. Jackman, Cameron MacKenzie (Speaker: K. J. Min), “Engineering Economy Courses for ABET Student Outcome Assessments and Program Educational Objective Reviews,” Industrial and Systems Engineering Conference, Orlando, FL, May 2018.

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Min, K. J., J. Jackman, and M. Zugg, (Poster Session Speaker: K. J. Min), “Critical Life-Cycle Decision Making in Complex Engineering Projects for Engineering Economy Courses,” The Envisioning the Future of Undergraduate STEM Education (EnFUSE): Research and Practice Symposium, Washington DC, April 2016.

C. Wang and K. Jo Min, (Speaker: C. Wang), “Fuel Hedging Strategy for Electric Power Utilities,” INFORMS Annual Conference, Philadelphia, PA, November 2015.

C. Lou, K. J. Min, and C. Wang, (Speaker: K. J. Min) “Renewable Power Plant Repowering Under Cost and Policy Uncertainties,” IIE Annual Conference and Expo, 5/30/15-6/2/15, Nashville, Tennessee.

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“Curriculum Continuous Improvement Process through Objectives and Outcomes,” with Jackman and Gemmill (Speaker: Min), IIE Annual Conference and Expo, Orlando, Florida, May, 2012.

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“Reverse Supply Chains with Landfill Considerations,” with Shi and Valenzuela (Speaker: Shi), INFORMS Annual Conference, Charlotte, North Carolina, November 2011.

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Subramaniam, P. S. and Min, K. J., "Divisionalization Study for a Symmetric Oligopoly," INFORMS Conference, Cincinnati, Ohio, May 1999 (Speaker: Min).

Wang, C. and Min, K. J., "Generation Expansion Planning for Electric Utilities under Price Uncertainties," INFORMS Conference, Cincinnati, Ohio, May 1999 (Speaker: Wang).

Wang, C. and Min, K. J., "Generation Expansion Planning for Electric Utilities Under Uncertainties: Profitability versus Risk," Industrial Engineering Research '99 Conference, Phoenix, Arizona, May 1999 (Co-

Speakers: Min and Wang).

Otake, T, Min, K. J., and Chen, C., "Inventory and Investment in Setup Operations under Profit and ROI Maximization," the Seventh Industrial Engineering Research Conference, May 1998, Banff, Canada (Speaker: Min).

Otake, T. and Min, K. J., "Inventory and Investment in Quality Improvement under ROI Maximization," INFORMS/CORS Conference, April 1998, Montreal, Canada (Speaker: Otake).

Min, K. J., "A Productivity Study on Seed Plant Operation and Staffing," Leadership Team Meeting, Pioneer Hi-Bred International, Inc., February 1998, Johnston, Iowa.

Otake, T., Min, K. J., and Chen, C., "Inventory and Investment in Setup Cost Reduction under Return on Investment Maximization," INFORMS Conference, October 1997, Dallas, Texas (Speaker: Min).

Otake, T. and Min, K. J., "Inventory and Pricing Policies for a Duopoly of Complements," the Sixth Industrial Engineering Research Conference, May 1997, Miami Beach, Florida (Speaker: Min).

Otake, T. and Min, K. J., "Inventory and Pricing Policies for a Duopoly of Substitute Products," the Fifth Industrial Engineering Research Conference, May 1996, Minneapolis, Minnesota (Co-Speakers: Min and Otake).

Chen, C. and Min, K. J., "An Inventory Model with Setup Operations Investment," INFORMS Conference, October 1995, New Orleans, Louisiana (Speaker: Min).

Chen, C. and Min, K. J., "Inventory and Disposal Policies in Response to a Sale," INFORMS International Conference, June 1995, Singapore (Speaker: Min).

Soesilo, D. and Min, K. J., "A Setup Reduction Model for Profit Maximizing Lot-Size Firms," ORSA/TIMS Conference, October 1994, Detroit, Michigan (Speaker: Min).

Hung, T. and Min, K. J., "Priority Allocation of Semiconductor Products with the Minimum Number of Deliveries Guaranteed," the Third Industrial Engineering Research Conference, May 1994, Atlanta, Georgia (Speaker:

Min).

Chen, C. and Min, K. J., "Optimal Inventory and Disposal Policies under Price Changes," TIMS/ORSA Conference, April 1994, Boston, Massachusetts (Speaker: Min).

Chen, C., Hung, T., Yao, M., and Min, K. J., "Inventory Policies with Disposal Options When Prices Change - Preliminary Findings," ORSA/TIMS Conference, November 1993, Phoenix, Arizona (Speaker: Min).

Min, K. J., "Competitive Inventory and Pricing Policies," TIMS/ORSA Conference, May 1993, Chicago, Illinois.

Min, K. J. "On Monopolistic and Competitive Inventory and Quantity Discount Pricing Policies," Department of Applied Economics, Universite Laval, December 1992, Quebec, Canada.

Min, K. J. and Oren, S. S., "Pricing Specification Levels and Allocation Priorities of Semiconductor Products," ORSA/TIMS Conference, November 1992, San Francisco, California (Speaker: Min).

Min, K. J., "Improving Economic Efficiencies - An Operations Research/ Operations Management Approach," Solid State Electronics Center, Honeywell, Inc., September 1992, Plymouth, Minnesota.

Min, K. J., "Monopolistic Quantity Discount Pricing Policies for EOQ Models," TIMS/ORSA Conference, April 1992, Orlando, Florida.

Min, K. J., "Product Positioning in a Duopoly," ORSA/TIMS Conference, October 1990, Philadelphia, Pennsylvania.

## X. GRADUATE STUDENTS

### **Ph.D.**

**Zhuoyi Zhao (IMSE Honors and Awards: Best Graduate Poster and Presentation Award, Spring 2020; Overall Best Presentation Award, Spring 2019), Summer 2021 expected**

**Parvin Mohammadi Arvejeh replaced by Gazi Nazia Nur in December 2020 – Nazia is expected to graduate in December 2023.**

Fikri Kucuksayacigil, Spring 2018, (ISU Research Excellence Award; ISU Teaching Excellence Award)

Chenlu Lou, Spring 2014 (ISU Research Excellence Award)  
Wenbo Shi, Summer 2013 (ISU Research Excellence Award and ISU Teaching Excellence Award)  
Karla Valenzuela, Fall 2009  
Shantha Daniel, Spring 2009  
Sasidhar Malladi, Fall 2007 (ISU Research Excellence Award)  
Jie Li, Fall 2006  
Chung-Hsiao Wang, Spring 2001 (ISU Research Excellence Award)  
Toshitsugu Otake, Summer 1998 (ISU Research Excellence Award)  
Cheng-Kang Chen, 1995 (ISU Research Excellence Award)

### **M.S.**

#### **Michelle Zugg, Spring 2021 expected**

Farshad Niayeshpour, Summer 2019  
Chenlu Lou, Spring 2011  
Shi Peng, Fall 2010  
Wen Lin, Fall 2008  
Kil Jin Lee, Fall 2008  
Nicholas Kuennen: Summer 2007  
Mario Lukito: Fall 2005  
Liew Kar-Yeng: Fall 2005  
Abhishek Bandyopadhyay: Summer 2005  
Viveck Rao: Fall 2004  
Sachin Sulakhe: Fall 2004  
Sasidhar Malladi: Summer 2004  
Balaji Sukhumaran: Fall 2002  
Siju Varghese: Spring 2002  
Siddarth Rao: Summer 2000  
Linfy Hidajat: Spring 2000  
Pazhayanur-Shanmukham Subramaniam: Summer 1998  
Chung-Hsiao Wang: Spring 1997  
Hyung-Jin Son: Spring 1997  
Hoon Jung: Spring 1997  
Djoko Soesilo: Spring 1995  
Ming-Jong Yao: Spring 1994  
Cheng-Kang Chen: Spring 1993  
Peitsang Wu: Spring 1992

### **M.E.**

Romy Cahyadi: Fall 1999 (Systems Engineering)  
Angela Volkmann: Fall 1994

## **XI. EXTENSION AND OUTREACH**

ABET Program Evaluator/Observer:

Evaluator: Industrial Engineering Program, 2019-2020.

Evaluator: Industrial Engineering Program, 2017-2018.

Evaluator: Industrial Engineering Program, 2016-2017.

Evaluator: Industrial Engineering Program, 2015-2016.

Evaluator: Industrial Engineering Program, 2014-2015.

Evaluator: Industrial Engineering Program, 2013-2014.

Evaluator: Industrial Engineering Program, 2012-2013.

Evaluator: Industrial Engineering Program, 2011-2012.

Evaluator: Industrial Engineering Technology Program, 2010-2011.

Evaluator: Industrial Engineering Program, 2009-2010.

Evaluator: Industrial Engineering Program, 2007-2008.

Observer: Industrial Engineering Program, 2006-2007.

International Research/Teaching Collaboration:

Worked with Dr. Trigos of MIT-Toluca on the components sharing problem of production assembly lines. This resulted in an M.S. thesis with honor at MIT-Toluca in December 2003. The thesis committee included myself as well as Dr. Barnes of Georgia Tech.

Visit to Community College for Collaboration Discussion

Northwest Iowa Community College, Sheldon, Iowa, December 13, 2016.

Northwest Iowa Community College, Sheldon, Iowa, November 10, 1999.

XII. SERVICE AND PROFESSIONAL ACTIVITIES

**Undergraduate Research Advisor:**

**Maeve McCloskey and Vaidehee Bahirat, Summer~Fall 2020, Electric Power Planning, IMSE Undergraduate Research Assistantship Program**

Omar Alqattan and Owen Blake, Incentive Account, Fall 2019.

**Maeve McCloskey and Ashley Sackpraseuth, co-advising with J. Jackman, IMSE Undergraduate Research Assistantship Program, Fall 2019~Spring 2020.**

Kennedy Cook and Erik Zeller, IMSE Learning and Teaching Small Grant, Summer 2019.

Eric Sesterhenn, co-advising with J. Jackman, IMSE Undergraduate Research Assistantship Program, Spring 2019.

Zahira Mella, Wesley Nelson, Ethan Bass, and John Sheriff, with John Jackman as Co-Advisor, NSF Supplementary REU on Visualization Aids for Education of Decision Making in Complex Projects, Summer 2018.

Joe Eilers, Central College, ISU REU program in Wind Energy Science, Engineering and Policy (WESEP), Summer 2017.

Connor Theisen, co-advising with G. Kremer, Iowa State University, IMSE Undergraduate Research Assistantship Program, Spring 2017 (Winner, Best Poster Award – IMSE URA Symposium April 2017).

Haley Beving, co-advising with J. Jackman, Iowa State University, IMSE Undergraduate Research Assistantship Program, Spring 2017.

Laura Lilienkamp, Smith College, ISU REU program in Wind Energy Science, Engineering and Policy (WESEP), Summer 2016.

Omar Elsayaf, co-advising with J. Jackman, Iowa State University, IMSE Undergraduate Research Assistantship Program, Fall 2016.

Jakob Croghan, co-advising with J. Jackman, Iowa State University, IMSE Undergraduate Research Assistantship Program, Fall 2016.

Seminars/Workshops Presented or Organized:

Taught a short course on Sustainable Production Systems in Monterrey Institute of Technology, Toluca, summer 2006.

With Jackman, Ryan, and Patterson, organized a workshop on Citizen-Based Assessment and Improvement of E-Government Services for citizen groups' leaders, government officials, and IT experts from Webster City,

Grinnell, and Mount Pleasant, as well as Platteville, Wisconsin, and Iola, Kansas, in March 2006.

IMSE Environmentally Sustainable Engineering Research Initiative - Organized industry workshop on Creating Competitive Advantage through Environmentally Sustainable Engineering, with S. Ryan, September 2005.

“Supply Chain Design and Analysis,” BioEconomy Working Group Meeting, Nevada, Iowa, January 2004, (with Olafsson and Ryan).

"Overview of Research Activities on Manufacturing and Logistics in Industrial and Manufacturing Systems Engineering Department at Iowa State University," The Third Midwest Roundtable on Manufacturing and Logistics, October 1996, Urbana-Champaign, Illinois (Co-Speakers: K. J. Min and J. Jackman).

Guest Editor (2013-2016), with J. Saphores and V. Thomas

*The Engineering Economist*, Special Issue on Engineering Economics and Sustainable Systems, in the areas of Energy Systems and Production Systems. “Introduction: Special Issue on Engineering Economics and Sustainable Systems,” Editorial, Vol. 61, pp. 161–162, 2016.

**Editorial Review Board and Area Editor**

**Area Editor, Real Options Analysis, The Engineering Economist, (2017-present)**

**International Journal of Information Systems in the Service Sector (2007-present)**

International Journal of Information & Decision Sciences (2008-2010)

International Journal of Operations and Quantitative Management (1994-2009)

Computers and Operations Research (2003-2004)

Guest Lecturer

WESEP 502, Wind Energy Systems, at ISU (3 lectures) in Fall 2015, Spring 2014, 2013.

Advisory Board Member:

Center for Excellence in Learning and Teaching, Fall 2008-Spring 2011.

“21st Century National Energy and Transportation Infrastructures for Balancing Environmental Impacts, Costs, and Resiliency,” a project funded by NSF (PI: McCalley) 2008-2011.

Panel Member/Chair:

National Science Foundation, Panel Review Member, Research Initiation Grant in Engineering Education, Arlington, Virginia, June 2012.

National Science Foundation, Review Panel Chair, Scholarships in Science, Technology, Engineering, and Mathematics, Arlington, Virginia, September 2011.

National Science Foundation, Panel Review Member, Transforming Undergraduate Education in Science, Technology, Engineering and Mathematics (TUES) Type 1, Arlington, Virginia, July 2011.

National Science Foundation, Panel Review Member, Scholarships in Science, Technology, Engineering, and Mathematics, Arlington, Virginia, September 2010.

National Science Foundation, Panel Review Member, Scholarships in Science, Technology, Engineering, and Mathematics, Arlington, Virginia, November 2009.

National Science Foundation, Panel Review, Manufacturing Enterprise Systems, Arlington, Virginia, May 2008.

National Science Foundation, Panel Review, Course, Curriculum, and Laboratory Improvement, Arlington, Virginia, July 2008.

National Science Foundation, Panel Review Member, Scholarships in Science, Technology, Engineering, and Mathematics, Arlington, Virginia, October 2008.

Panel Review, SBIR/STTR Phase I, Power Systems, NSF, Washington D.C. March 2007

Prevention of Significant Deterioration (PSD) Economics

Taskforce, Air Quality Bureau, Department of Natural Resources (1998-1999)

Discussion Group, Focus on Areas for INFORMS Opportunity, INFORMS Conference, October 1997, Dallas, Texas.

Panel Review, Unsolicited Proposals, Program of Production Systems, Division of Design, Manufacture and Industrial Innovation, Directorate of Engineering, National Science Foundation, November 1995, Washington D.C.

On policies and directions of International Journal of Operations and Quantitative Management, INFORMS International Conference, June 1995, Singapore.

Engineering Education Track Co-Chair (2016-2017)

With Jackman for IISE 2017 (Pittsburgh, PA, May 2017).

Energy Track Co-Chair (2010-2011)

With Jackman and Ryan for IERC 2011 (Reno, Nevada, May 2011).

Area Editor (1994)

In the areas of Inventory, Mathematical Programming, and Resource Utilization for Proceedings of the Third Industrial Engineering Research Conference, Institute of Industrial Engineers.

Session Chair/Moderator:

INFORMS Session Chair, "Optimization and Aviation," Seattle, WA, October 2019.

INFORMS Session Chair, "Economic Modeling," Phoenix, AZ, November 2018.

ISERC Session Chair, "Course Planning and Experiences," Anaheim, CA, May 2016.

INFORMS Session Chair, "Energy IV: Renewable Energy and Environment," Minneapolis, MN, October 2013.

ECSEE Session Chair, "Interdisciplinary," Brighton, U.K., July

2013.

ISERC Session Chair, “Clean Energy & Renewables-II,” San Juan, Puerto Rico, May 2013.

INFORMS Session Chair, “Supply Chain, Closed-loop II,” Austin, Texas, November 2010.

INFORMS Session Chair, “Green Supply Chain Management,” San Diego, California, October 2009.

INFORMS Session Chair, “Investment and Hedging Strategies,” Washington DC, October 2008.

INFORMS Session Chair, “Internationalizing Experiences in Teaching and Learning,” Washington DC, October 2008.

IERC Session Chair, “Outcome-Based Teaching and Learning,” Vancouver, British Columbia, Canada, May 2008.

Session Organizer: Outcome-Based Teaching and Learning, Education Track, Industrial Engineering Research Conference, Vancouver, British Columbia, May 2008

Session Chair: Capacity and Inventory Session, INFORMS, Seattle, Washington, November 2007

Session Organizer: Birds of a Feather Session: Citizen-Based Assessment and Improvement of E-Government Services, with Jackman, Patterson, and Ryan (Moderators: Jackman and Min) dg.o 2007, Philadelphia, Pennsylvania, May 2007

Session Chair: Applied Optimization Session, Industrial Engineering Research Conference, Houston, Texas, May 2004.

Moderator: Session on “Internet-Based Public Policy Participation for Rural Community Citizens,” National Conference on Digital Government Research, Seattle, Washington, May 2004.

Engineering Management Session, Annual Industrial Engineering Research Conference, Orlando, Florida, May 2002.

Internet and E-Commerce Session, Tenth Industrial Engineering

Research Conference, Dallas, Texas, May 2001.

Industry Applications I Session, INFORMS Conference, San Antonio, Texas, November 2000.

Applied Optimization Session, Ninth Industrial Engineering Research Conference, Cleveland, Ohio, May 2000.

Strategic Planning Session, INFORMS Conference, Cincinnati, Ohio, May 1999.

Inventory Session, the Seventh Annual Industrial Engineering Research Conference, May 1998, Banff, Canada.

Strategic Cost Analysis Session, INFORMS Conference, October 1995, New Orleans, Louisiana.

Inventory Models Session, ORSA/TIMS Conference, October 1994, Detroit, Michigan.

Costing Session, the Third Industrial Engineering Research Conference, May 1994, Atlanta, Georgia.

Tenure Reviewer:

Dr. Mathew Petering, Industrial and Manufacturing Engineering, University of Wisconsin-Milwaukee, 2013.

Dr. Jaejin Jang, Industrial and Manufacturing Engineering, University of Wisconsin-Milwaukee, 2005.

Dr. Sooyoung Kim, on behalf of Department of Industrial Engineering, Pohang University of Science and Technology, 2001.

Journal/Proceedings Referee:

*The Engineering Economist*, 1994, 2004, 2007, 2011, 2012, 2013, 2015, 2016.

Proceedings Referee, ISERC, Nashville, Tennessee, May/June 2015.

IEEE Transactions on Engineering Management, 2011, 2012, 2013, 2014.

*The Engineering Economist*, 1994, 2004, 2007, 2011, 2012, 2013.

IEEE Transactions on Power Systems, 2013.

Proceedings Referee, ISERC, San Juan, Puerto Rico, May 2013

Proceedings Referee, ISERC, Orlando, Florida, May 2012  
Proceedings Referee, IERC, Reno, Nevada, May 2011  
OMEGA - The International Journal of Management Science, 2010  
Proceedings Referee, IERC, Vancouver, British Columbia, Canada,  
May 2008.  
Proceedings of American Society for Engineering Education  
Conference, 2005  
Manufacturing & Service Operations Management, 2004  
Proceedings of the Annual Industrial Engineering Research  
Conference, 1994, 1995, 1996, 2001, 2003, 2006  
Computers and Operations Research, 2002, 2001, 2000, 1999,  
1998, 1997  
Computers & Mathematics, 2002  
International Transactions in Operational Research, 2001  
Annals of Operations Research, 2000  
International Journal of Systems Science, 2000  
Production Planning & Control, 1999  
IIE Transactions - Special Issue on Supply Chain Coordination and  
Integration, 1996, 1995  
ASME Journal of Manufacturing Science and Engineering, 1997,  
1996  
IIE Transactions - Scheduling and Logistics, 1993  
IIE Transactions - Design and Manufacturing, 1995  
Management Science, 1997, 1994, 1993  
Journal of the Operational Research Society, 1995  
IEEE Transactions on Reliability, 1994  
International Journal of Production Economics, 1995, 1994  
Journal of Intelligent Manufacturing, 1994.  
Computers and Industrial Engineering, 1997, 1995-1993, 1990,  
2004  
International Journal of Management and Systems, 1993  
Applied Engineering Education, 1990.

Textbook Proposal Reviewer:

“Capital Expenditure Decisions for Corporate and Public Projects,”  
Proposed by Randhawa, Tanchoco, and Bedworth for McGraw-  
Hill, 1999.

Conferences/Workshops/Seminars attended:

**National Effective Teaching Institute - Online (NETI-3), June  
2020.**

2019 MIT Energy Conference, Cambridge, MA, April 2019.

2019 ABET Symposium, Dallas, TX, April 2019.

2018 MIT Energy Conference, Cambridge, MA, March 2018.

“Data Visualization: Conveying Information through Visual Representations,” a two-day course, Harvard University, MA, June 2016.

ABET Workshop, IIE Annual Conference and Expo 2016, Anaheim, CA, May 2016.

Big Data Finance 2016, New York University, NY, May 2016.

All Energy 2016, Glasgow, United Kingdom, May 2016.

2016 ABET Symposium, Hollywood, Florida, April 2016.

NSF Sponsored Engineering Design and Systems Engineering Foundations Workshop, Clemson University, South Carolina, November 2015.

ABET Workshop, IIE Annual Conference and Expo 2015, Nashville, Tennessee, May 2015.

2015 ABET Symposium, Atlanta, Georgia, April 2015.

DMDII 15-02 TO 15-07 PROJECT LAUNCH WORKSHOP, Atlanta, Georgia, February 2015.

ASEE Sunday Workshop: Beyond the Survey: Utilizing Alternative Inquiry Methods, Indianapolis, IN, June 2014.

ABET Workshop, IIE Annual Conference and Expo 2014, Montreal, Canada, June 2014.

All Energy 2014, Aberdeen, United Kingdom, May 2014.

2014 ABET Symposium, Pittsburgh, PA, April 2014.

Military Operations Research Society (MORS) Professional Development Workshop: Building Government and Industry Relations, Arlington, VA, March 2014.

2014 MIT Energy Conference, Cambridge, MA, February 2014.

Workshop: Substitution of Critical Raw Materials – Importance for European Industry, The Critical Raw Materials Innovation Network (CRM\_InnoNet) of European Union, Warsaw University of Technology, Poland, September 2013.

Critical and Strategic Materials (CSM) Workshop, Cranfield University, Cranfield Bedfordshire, U.K., July 2013.

ABET Workshop, IIE Annual Conference and Expo 2013, San Juan, Puerto Rico, May 2013.

ABET Workshop, IIE Annual Conference and Expo 2012, Orlando, Florida, May 2012.

ABET Workshop, IIE Annual Conference and Expo 2011, Reno, Nevada, May 2011.

ABET Workshop, IIE Annual Conference and Expo 2009, Miami, Florida, May/June, 2009.

“Connecting Student Learning Outcomes to Teaching, Assessment, Curriculum,” Workshop by Institute for Educational Outreach, Alverno College, Milwaukee, Wisconsin, June 2007.

Teaching Effectiveness Colloquium at INFORMS Annual Meeting, Pittsburgh, November 2006.

Green Engineering Educators Workshop at American Society for Engineering Education Conference, Portland, Oregon, June 2005.

NSF Symposium on Supply Chain Management in Process Industries, Minneapolis, Minnesota, May 2004.

IIE Program Evaluator Training for ABET, Houston, Texas, May 2004.

ABET Training Faculty Workshop Version 2.0, ABET Commission Summit, and Annual ABET Meeting, Minneapolis, Minnesota, October, 2003.

26<sup>th</sup> National Rural Health Association Annual Conference, Salt Lake City, Utah, May 2003.

Best Assessment Processes V Training, Rose-Hulman Institute of Technology, Terre Haute, Indiana, April 2003.

“Third International Workshop on Advanced Issues of E-Commerce and Web-Based Information Systems,” Milpitas, California, June 2001.

“Building Bridges VII Research Conference: Assessing Policy Decisions and Their Impact on Health Care Delivery,” by American Association of Health Plans & Agency for Healthcare Research and Quality, Seattle, Washington, April 2001.

“Graduate Education at a 21st-Century Land-Grant University,” the Fourth Annual Faculty Conference of Iowa State University,” Grinnell, Iowa, March 1996.

**Professional Society Memberships:**

**IIE (Institute of Industrial Engineering; 1993-present)**

**INFORMS (Institute for Operations Research and the Management Sciences; 1995-present)**

ASEE (American Society for Engineering Education; 2003-2009; 2014; 2016)

ORSA (Operations Research Society of America; 1987-1994)

TIMS (The Institute of Management Science; 1990-1994)

**Accreditation Efforts for BSIE Program at IMSE**

Coordinated and wrote major portions of 2018 Self-Study for IE Program

Coordinated and wrote major portions of 2012 Self-Study for IE Program

Coordinated and wrote major portions of 2006 Self-Study for IE Program

**XIII. UNIVERSITY ACTIVITIES**

**University Committees:**

Annuities and Insurance Committee 1995-1998

Liaison - ISU Water Resources Research Institute, 1992-1999

Transportation Planning Coordinating Committee, 1992-1999

**College Committees:**

**Engineering College Curriculum, 2003-present**

**Undergraduate Program Leadership, 2019-present**

**ABET Continuous Improvement, 2019-present**

IMSE Chair Search Committee, Fall 2015-2016

Student Learning Task Force, 2004-Spring 2009

Coop/Intern Task Group, 2003-2008

Academic Quality Management 2002-2004

Professional Development 2001-2004

Honors and Awards 2001-2004

Faculty Development 1998-2000

IMSE DEO Evaluation 1999

**Department Committees**

**Curriculum, Assessment and Standards, 1999-present,  
Chair (2000-present)**

Academic Advisor(s) Search Committee, Fall 2016

IMSE Chair Evaluation Committee, Spring 2015

Academic Advisor(s) Search Committee, Fall 2015

Secretary III Search Committee, Fall 2015

Space, Facilities Planning, and Educational Resources,  
2001-2010

Faculty Search Committee, 2002-2003, 1992-1998, 1990-1991

Undergraduate and Graduate Seminars, Chair 1999

Graduate Committee, 1991-1999

Curriculum Committee, 1991-1992

Alumni Relations Committee, 1996-1997

Educational Resources, Computer Policy and Planning Committee,  
1990-1991

**Faculty Advisor for Student Societies, Clubs, and other Activities:**

**Faculty Advisor, INFORMS ISU Student Chapter, 1997-  
present**

Faculty Advisor, ISU Korean Student Association, 1998-1999

Undergraduate Research Assistant, Andres Pereira (stipends to  
advisee and advisor by Research Careers for Minority Scholars  
(RCMS) Program, Iowa State University, Summer, 1995).