

Gökhan Eğilmez

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[Faculty Profile](#) • [LinkedIn](#) • [Google Scholar](#) • [ASOSlab](#) • [Blog](#)

EDUCATION

Doctor of Philosophy	2009 - 2012
Industrial and Systems Engineering, Ohio University, Athens, OH	
Master of Science	2011 - 2013
Civil Engineering, Ohio University, Athens, OH	
Master of Science	2007 - 2009
Industrial and Systems Engineering, Ohio University, Athens, OH	
Bachelor of Science	2002 - 2007
Industrial Engineering, Istanbul Technical University, Istanbul, Turkey	

WORK EXPERIENCE

Associate Professor	Fall 2019 – Present	
Department of Mechanical and Industrial Engineering, University of New Haven, West Haven, CT		
Associate Professor	Fall 2019 – Present	
Entrepreneurship and Innovation Program, University of New Haven, West Haven, CT		
Assistant Professor	Fall, 2015 – Spring 2019	
Department of Mechanical and Industrial Engineering, University of New Haven, West Haven, CT		
Assistant Professor	Fall, 2017 – Spring 2019	
Entrepreneurship and Innovation Program, University of New Haven, West Haven, CT		
Industry Consultant		
Galliard Water Treatment Plant, Regional Water Authority, New Haven, CT		Spring & Fall, 2019
Inventec Performance Chemicals, Deep River, CT		Fall 2016 - Spring 2017
Assistant Professor	Fall, 2013 – Spring 2015	
Department of Industrial and Manufacturing Engineering, North Dakota State University, Fargo, ND		
Postdoctoral Research Associate	Spring & Summer, 2013	
Department of Civil, Environ. and Construction Engineering, University of Central Florida, Orlando, FL		
Project Assistant	Summer, 2011	
Division of Safety and Hygiene, Bureau of Workers' Compensation, Columbus, OH		
Graduate Research Assistant	2011 - 2012	
Department of Civil Engineering, Ohio University, Athens, OH		
Program Assistant	2011 - 2012	
Intramural Sports, Campus Recreation, Ohio University, Athens, OH		
Graduate Research & Teaching Assistant	2007 - 2011	
Department of Industrial and Systems Engineering, Ohio University, Athens, OH		

TEACHING EXPERIENCE

* Mean Teaching Evaluation, Career: 4.2/5

Instructor

University of New Haven, Fall 2015-Present

- BANL 6320 Supervised Learning
- BANL 3200 Supervised Learning
- INDE 6641 - Supply Chain Management
- SYST 4441 - Supply Chain and Logistics

- EGRM 6630 - Project Management
- EASC 2232 - Project Management and Engineering Economics
- INDE 6673 01S -Data Analytics: Predictive & Class. Modeling
- INDE 6609 -Descriptive and Inferential Statistics
- SYST 3347- Statistical Analysis
- EGRM 6609 -Applied Statistics for Quality & Eng. Mngt.
- EGRM 6681 - Simulation Techniques and Apps., Hybrid (Onsite & Online)
- INDE 6681 - System Simulation
- INDE 6617 - Engineering Economic Analysis and Cost Estimating
- SYST 4435 - Simulation and Applications

North Dakota State University, Fall 2013-Spring, 2015

- IME472/672 - Simulation of Business and Industrial Systems
- IME480/680 - Production and Inventory Control

Ohio University, Fall 2007-Fall, 2012

- ISE 330/530 - Engineering Economy

Teaching Assistant:

Ohio University, Fall 2007-Fall, 2012

- ISE 306/506 - Engineering Statistics
- ISE 330/530 - Industrial Computer Simulation
- ISE 432/532 - Inventory and Manufacturing Control II
- ISE 360/560 - Computer Integrated Manufacturing
- ISE 316/516 - Engineering Probability
- ISE 200 - Introduction to Comp. & Industrial Engineering
- ISE 201 - Data Management and Display

Curriculum Development

New Course Development

- INDE 6672 Supply Chain Analytics (Fall 2019-Present): Developing this course initially as special topics and then to be a core course for modeling and analytics track in MS industrial engineering program. Topics covered include demand management and forecasting, time series inventory forecasting, inventory management. Course examples are demonstrated with MS Excel, Rstudio, Statistica, and Python software.
- INDE 6673 01S Data Analytics and Predictive & Classification Modeling (Spring, 2016 & 2017): Developed this course as special topics where data visualization, preparation, cleaning, etc. tasks are taught along with building prediction and classification models for solving big data problems with SAS. I attended two trainings provided by SAS and received certifications, accordingly. Course examples are demonstrated with MS Excel, SAS, SPSS, and Statistica softwares.

Online Course Development

- EASC2232 Project Management and Economic Analysis: 15-week undergraduate level course where remote synchronous learning format is used in conjunction with weekly quizzes, discussion forums, semester long entrepreneurial term project, bi-weekly assignments and midterm and final exams with lockdown browser. (Fall 2020)
- EGRM 6681 Simulation Techniques and Applications (Summer and Fall, 2018): 7.5 week fast-paced online graduate level course, which consists of 8 modules and to be delivered fully online or hybrid format.
- EGRM/INDE 6617 Engineering Economic Analysis and Cost Estimating (Summer, 2020)

7.5 week fast-paced online graduate level course, which consists of 8 modules and to be delivered fully online or hybrid formats.

Service-Learning Course Development

- EGRM 6609 Applied Statistics for Quality and Engineering Management (Spring, 2018)
Arranged a service-learning project partnership with a local nonprofit organization, Data Haven, located in New Haven, CT. Students formed a set of 6 project groups, where data analytics, statistical testing, and visualization methods were applied to extract understanding from the large dataset of recent Community Well-being survey.
- INDE 6673 01S Data Analytics and Predictive & Classification Modeling (Spring, 2017):
Arranged a service-learning project partnership with a local nonprofit organization, Greater New Haven Green Fund, where total of 9 service-learning projects were completed. Students assisted with the statistical analysis and data visualization of the Fund's history of funded projects with the Fund's mission and vision.
- INDE 6672 01S Data Analytics and Predictive & Classification Modeling (Spring, 2016):
Arranged a service-learning project partnership with a local nonprofit organization. Seven service-learning projects were completed by total of 24 students. The students worked on a variety of projects, where data collection, analytics, and visualization methods were applied with state of art analytics software such as SAS.

RESEARCH INTERESTS

Sustainability Modeling and Analytics of Industrial Operations, and Global Supply Chains

Studying problems of multidisciplinary domains including, global and regional supply chain-linked sustainability assessment of manufacturing, energy, transportation, agri-food production, and built environment from life cycle sustainability point of view by using novel research methods such as input-output analysis (IOA), life cycle assessment (LCA), data envelopment analysis (DEA), system dynamics (SD), carbon, energy, water and ecological footprint analysis, multi-criteria decision making (MCDM), goal programming, and fuzzy set theory.

Data Analytics, System Simulation, and Benchmarking

Application of data mining, machine learning, parametric and non-parametric statistical modeling tools to solve complex problems related to social, environmental, and economic aspects of engineered systems and make environmentally benign, cost-effective, and socially acceptable policies.

Applied Operations Research and Meta-Heuristic Optimization

Application of optimizing procedures to the problems from various domains including manufacturing system design and control, supply chain management, facility location and vehicle routing. Validation of optimization results with dynamic & discrete simulation modeling.

Higher Education Research with Mixed Methods

Studying the impact of technology, instruction methods, and environments on the learning effectiveness of students in higher education settings with mix-methods research such as statistical testing, Principal Component Analysis, Structural Equation Modeling, etc. Research problem domains include entrepreneurial learning, project-based learning, problem-based learning, gamification, experiential learning, and online, hybrid, vs. face-to-face learning settings, and virtual reality.

Research Group: ASOS (www.asoslab.com)

PUBLICATIONS

Refereed Journal Articles

*: Corresponding author, ^s: Graduate/Undergraduate student, IF: Impact Factor

- [52] Lamichane, S.^s, **Egilmez, G.***, Bhutta, M.K., Gedik, R., Erenay, B., 2020, Benchmarking OECD Countries' Sustainable Development Performance: A Goal-Specific PCA Approach, *Journal of Cleaner Production* (Revised).
- [51] Bhutta, M.K.S.*^s, Muzaffar, A., **Egilmez, G.**, Huq, F., Warriach, M.A., 2020, "Environmental Sustainability, Innovation Capacity, and Supply Chain Management Practices Nexus: A Mixed Methods Research Approach", *Int. J. of Integrated Supply Management* (Accepted).
- [49] Rokaya, A.^s, **Egilmez, G.**, Jeongho, K.*^s, 2020, Incompatible Graded Finite Elements for Orthotropic Functionally Graded Materials, *Computers and Structures* (Accepted).
- [47] **Egilmez, G.***, Gedik, R., and Reitz, D., 2020, "An Integrated Simulation-based Decision Support Approach to Investigate Order and Production Cycle Times", *Journal of the Operational Research Society* (Revised).
- [46] **Egilmez, G.**, Oztanriseven, F.*^s, Gedik, R., 2020, "Energy, Climate, Water Nexus: A Multi-Region Input Output Analysis of U.S. Manufacturing, Structural Change and Economic Dynamics" (In Print) <https://doi.org/10.1080/10429247.2020.1758539>
- [45] Ezici, B.^s, **Egilmez, G.***, Gedik, R., 2020, "Assessing Eco-efficiency of the U.S. Manufacturing Industries with a Specific Focus on Renewable vs. Non-renewable Energy Use: An Integrated Time Series MRIO and DEA Approach", *Journal of Cleaner Production* (IF: 6.395) <https://doi.org/10.1016/j.jclepro.2019.119630>.
- [44] **Egilmez, G.*** and Steward, S.^s, 2019, "Food Security Performance Assessment of the U.S. States: A DEA-Based Malmquist Productivity Index Approach", *International Journal of Agricultural Resources, Governance and Ecology*, Vol: 15, I: 1, <https://doi.org/10.1504/IJARGE.2019.099797>.
- [43] **Egilmez, G.***, Erdil, N.O., Arani, M.O.^s, Vahid, M.^s, 2019, "Application of Artificial Neural Networks to Assess Student Happiness", *International Journal of Applied Decision Sciences*, Vol: 12 Issue: 2, Pages: 115-140, <https://doi.org/10.1504/IJADS.2019.098674>
- [42] Park, Y.S.*^s, Aslam, M., Gebremikael, F., **Egilmez, G.**, 2018, "Benchmarking Environmental Efficiency of Ports using Data Mining and RDEA: The case of a U.S. Container Ports", *International Journal of Logistics Research and Applications* 22 (2), 172-187, <https://doi.org/10.1080/13675567.2018.1504903>
- [41] **Egilmez, G.***, Erenay, B. and Süer, G.A., 2018, "Hybrid Cellular Manufacturing System Design with Cellularization Ratio: An Integrated Mixed Integer Nonlinear Programming and Discrete Event Simulation Approach", *International Journal of Services and Operations Management*, Vol: 32, Issue: 1, Pg: 1-24 (IF: 1.32, <https://doi.org/10.1504/IJSOM.2019.097036>
- [40] Gedik, R.*^s, Kalathia, D.^s, **Egilmez, G.**, Kirac, E., 2018, "A Constraint Programming Approach for Solving Unrelated Parallel Machine Scheduling Problem", *Computers and Industrial Engineering* (IF: 3.195), Vol: 121, I: July, Pages: 139-149, <https://doi.org/10.1016/j.cie.2018.05.014>
- [39] **Egilmez, G.***, Arinsoy, A.^s, and Süer, G.A., 2018, "A Stochastic Scheduling Approach to Minimize the Number of Risky Jobs and Total Probability of Tardiness", *International Journal of Services and Operations Management* (IF:1.32), Jan 2018, Vol. 30, Issue 2, pp. 186-202 <https://doi.org/10.1504/IJSOM.2018.091905>.
- [38] Park, Y. S.*^s, Lim, S., **Egilmez, G.** and Szmerekovsky, J., 2018, Environmental Efficiency Assessment of U.S. Transport Sector: A Slack-based Data Envelopment Analysis Approach", *Transportation Research Part D, Transport and Environment*, Elsevier, Elsevier (IF: 3.445), <https://doi.org/10.1016/j.trd.2016.09.009>
- [37] **Egilmez, G.***, Aslam, M.^s, Gedik, R., 2017, "Layer Analysis of CO2 Sources in the U.S. Economic Supply Chains: An Input Output LCA Study", *Industrial Management and Data Systems*, Emerald (IF: 2.948), Vol. 117 Issue: 10, pp.2171-2193, <https://doi.org/10.1108/IMDS-11-2016-0473>
- [36] **Egilmez, G.*** and McAvoy, D., 2017, "Predicting Nationwide Road Fatalities in the U.S.: A Neural Network Approach", *International Journal of Metaheuristics*, Jan 2017, Vol. 6, Issue 4, pp. 257-278 <http://dx.doi.org/10.1504/IJMHEUR.2017.10006776>

- [35] **Egilmez, G.***, Bhutta, K., Erenay, B., Park, Y. S.^s, Gedik, R., 2017, "Carbon footprint stock analysis of US manufacturing: a time series input-output LCA", *Industrial Management and Data Systems, Emerald*, (IF: 2.948) Vol. 117 Issue: 5, Pages 853-872, <https://doi.org/10.1108/IMDS-06-2016-0253>
- [34] Tatari, O.*, **Egilmez, G.** and Dhruva, K.^s, 2016, "Socio-economic Efficiency Analysis of Highways: A Data Envelopment Analysis", *Journal of Civil Engineering and Management, Taylor & Francis*, (IF: 1.546) ,Pages 747-757, <http://dx.doi.org/10.3846/13923730.2014.914079>
- [33] **Egilmez, G.***, Gumus, S., Kucukvar, M., Tatari, O., 2016. "A Fuzzy Data Envelopment Analysis Framework for Dealing with Uncertainty Impacts of Input-Output Life Cycle Assessment Models on Eco-efficiency Assessment", *Journal of Cleaner Production, Elsevier* (IF: 5.651). Volume 129, 15 August 2016 Pages 622-636, <http://dx.doi.org/10.1016/j.jclepro.2016.03.111>
- [32] Kucukvar, M., **Egilmez, G.***, Onat, N.C.^s, Samadi, H.^s, and Cansev, B.^s, 2016. "Energy-Climate-Manufacturing Nexus: New Insights from the Regional and Global Supply Chains of Manufacturing Industries", *Applied Energy, Elsevier*, Vol: 184, Pages: 889-904 (IF: 7.9). <http://dx.doi.org/10.1016/j.apenergy.2016.03.068>
- [31] Aslam, M.^s, **Egilmez, G.***, Kucukvar, M., and Bhutta, M.K.S., 2016. "From Green Buildings to Green Supply Chains: An Integrated Input Output Life Cycle Assessment and Optimization Framework for Carbon Footprint Reduction Policy Making", *Management of Environmental Quality: An International Journal, Emeralds*, Vol. 28 Issue: 4, Pages 532-548, <http://dx.doi.org/10.1108/MEQ-12-2015-021>
- [30] Park, Y. S.^s, Al-Qublan, H., Lee, E.*, **Egilmez, G.**, 2016. "Interactive Spatio-temporal Analysis of Oil Spills using Comap in North Dakota", *Informatics*, Vol 3(2), <http://dx.doi.org/10.3390/informatics3020004>
- [29] Bhutta, M.K., **Egilmez, G.***, Chatha, K., Huq, F., 2016. "Survey of Lean Management Practices in Pakistani Industrial Sectors", *International Journal of Services and Operations Management (IF:1.32)*, Jan 2017, Vol. 28, Issue 3, pp. 309-334, <https://doi.org/10.1504/IJSOM.2017.087287>
- [28] Onat, N.C.^s, Kucukvar, M., Tatari, O.*, and **Egilmez G.** 2016. "Integration of System Dynamics Approach towards Deepening and Broadening the Life Cycle Sustainability Assessment Framework: A Case for Electric Vehicles " *International Journal of Life Cycle Assessment, Springerlink*, (IF:4.195), Volume 21, Issue 7, Pages 1009–1034 <http://dx.doi.org/10.1007/s11367-016-1070-4>
- [27] Kucukvar, M., **Egilmez, G.** and Tatari, O.*, 2016. "Life Cycle Assessment and Optimization-Based Decision Analysis of Construction Waste Recycling for a LEED-Certified University Building", *Sustainability (IF: 2.077)*, Vol: 8, I: 1, 89, <doi:10.3390/su8010089>
- [26] Park, Y.S.^s, **Egilmez, G.**, and Kucukvar, M., 2016. "Emergy and End-point Impact Assessment of Agricultural and Food Production in the United States: A Supply Chain-linked Ecologically-based Life Cycle Assessment", *Ecological Indicators, Elsevier*, (IF: 3.983) Vol. 62, Pages 117-137, <https://doi.org/10.1016/j.ecolind.2015.11.045>
- [25] **Egilmez, G.***, Kucukvar, M. and Park, Y.S.^s, 2015. "Supply Chain-linked Sustainability Assessment of the U.S. Manufacturing: An Ecosystem Perspective", *Sustainable Production and Consumption, Elsevier*, (IF:2.73) Volume 5, Pages 65–81 , <https://doi.org/10.1016/j.spc.2015.10.001>
- [24] Gumus, S., **Egilmez, G.***, Kucukvar, M. and Park, Y.S.^s, 2015. "Integrating Expert Weighting and Multi-Criteria Decision Making into Eco-efficiency Analysis: The Case of U.S. Manufacturing", *Journal of the Operational Research Society*, (IF: 1.077) Vol. 67, Issue 4, Pages 616-628, <http://dx.doi.org/10.1057/jors.2015.88>
- [23] Singh, S.^s, **Egilmez, G.*** and Ozguner, O.^s, 2015. "Cell formation in a cellular manufacturing system under uncertain demand and processing times: A Stochastic Genetic Algorithm (SGA) approach", *International Journal of Services and Operations Management (IF: 1.32)*, Volume 26, Issue 2, Pages 162-185, <http://dx.doi.org/10.1504/IJSOM.2017.081489>
- [22] Park, Y.S.^s, **Egilmez, G.***, and Kucukvar, M., 2015. "Eco-efficiency Analysis of the Freight Logistics in the U.S. with a Specific focus on Air, Rail, Truck and Water Models: An Integrated Life Cycle Assessment and Linear Programming Approach", *World Review of Intermodal Transport*, Vol. 6, No. 1, <http://dx.doi.org/10.1504/WRITR.2016.078137>
- [21] Kucukvar, M.*, **Egilmez, G.**, Onat, N.C., and Samadi, H.^s, 2015. "A global, scope-based Carbon Footprint Modeling for Effective Carbon Reduction Policies: Lessons from the Turkish

- Manufacturing”, *Sustainable Production and Consumption, Elsevier* (IF:2.73), Volume 1, Pages 47–66, <https://doi.org/10.1016/j.spc.2015.05.005>
- [20] **Egilmez, G.**, Celikbilek, C.^s, Altun, M.^s, and Süer, G.A., 2015, “Cell Loading and Shipment Optimization in a Cellular Manufacturing System: An Integrated Genetic Algorithms and Neural Network Approach”, *International Journal of Industrial and Systems Engineering, Inderscience* (IF: 0.36), Volume 24, Issue 3, Pages 302-332, <http://dx.doi.org/10.1504/IJISE.2016.079822>
- [19] **Egilmez, G.***, Erenay, B., Mese, E.M., Süer, G.A., 2015, “Group Scheduling in a Cellular Manufacturing Shop to Minimize Total Tardiness and nT: A Comparative Genetic Algorithm and Mathematical Modeling Approach”, *International Journal of Services and Operations Management* (IF: 1.32), *Inderscience*, Volume 24, Issue 1, Pages 125-146, <http://dx.doi.org/10.1504/IJSOM.2016.075766>
- [18] **Egilmez, G.*** and Süer, G.A., 2015, “Multi-period Cell Loading and Job Sequencing in a Cellular Manufacturing System”, *International Journal of Advanced Operations Management, Inderscience*, Vol: 7, Issue 2, Pages 98-113, <http://dx.doi.org/10.1504/IJAOM.2015.071468>
- [17] Park, Y.S.^s and **Egilmez, G.***, 2015, “TRACI Impact Assessment of Transportation Manufacturing Nexus in the U.S.: A Supply Chain-Linked Cradle-to-Gate LCA”, *Environmental Management and Sustainable Development*. <http://dx.doi.org/10.5296/emsd.v4i2.7427>
- [16] Park, Y.S.^s, **Egilmez, G.** and Kucukvar, M., 2015, “A Novel Life Cycle-based Principal Component Analysis Framework for Eco-Efficiency Analysis: Case of the U.S. Manufacturing and Transportation Nexus”, *Journal of Cleaner Production, Elsevier*, (IF: 5.651). Volume 92, Pages 327-342, <http://dx.doi.org/10.1016/j.jclepro.2014.12.057>
- [15] **Egilmez, G.*** and Süer, G.A., 2014, “Stochastic Cell Loading to Minimize nT Subject To Maximum Acceptable Risk Levels”, *Journal of Manufacturing Systems, Elsevier* (IF: 3.699), Volume 35, Pages 136-143, <http://dx.doi.org/10.1016/j.jmsy.2014.11.018>.
- [14] **Egilmez, G.***, Gumus, S., Kucukvar, M., 2014, “Environmental Sustainability Benchmarking of U.S. and Canada Metropolises: An Expert Judgment-based Fuzzy Multi-criteria Decision-Making Approach”, *Cities – The International Journal of Urban Policy and Planning, Elsevier*, (IF: 2.797), Volume 42, Pages 31-41, <http://dx.doi.org/10.1016/j.cities.2014.08.006>
- [13] **Egilmez, G.*** and Park, Y.S.^s, 2014, “Transportation Related Carbon, Energy and Water Footprint Analysis of U.S. Manufacturing: A Life Cycle-based Sustainability Assessment”, *Transportation Research Part D: Transport and Environment, Elsevier*, (IF: 3.445), Volume 32, Pages 143-159, <http://dx.doi.org/10.1016/j.trd.2014.07.001>.
- [12] Kucukvar, M.^s, Tatari, O. and **Egilmez, G.***, 2014, “Sustainability Assessment of U.S. Final Consumption and Investments: Triple-Bottom-Line Input-Output Analysis”, *Journal of Cleaner Production, Elsevier*, (IF: 5.651), Volume 81, Pages 234-243, <http://dx.doi.org/10.1016/j.jclepro.2014.06.033>.
- [11] **Egilmez, G.***, Erenay, B.^s, and Süer, G.A., 2014, “Stochastic Skill-based Manpower Allocation in a Cellular Manufacturing System”, *Journal of Manufacturing Systems, Elsevier*, (IF: 3.699), Volume 33, Issue 4, Pages 578-588, <http://dx.doi.org/10.1016/j.jmsy.2014.05.005>.
- [10] Kucukvar, M., **Egilmez, G.*** and Tatari, O., 2014, “Evaluating Environmental Impacts of Alternative Construction Waste Management Approaches Using Supply Chain-linked Life-Cycle Analysis”, *Waste Management Research*, (IF: 1.114), Volume 32, Issue 6, Pages 500-508, <http://dx.doi.org/10.1177/0734242X14536457>.
- [9] Onat, N.C.^s, **Egilmez, G.*** and Tatari, O., 2014, “Towards Greening the U.S. Residential Building Stock: A System Dynamics Approach”, *Building and Environment, Elsevier*, (IF: 4.464), Volume 78, Pages 68-80, <http://dx.doi.org/10.1016/j.buildenv.2014.03.030>.
- [8] Kucukvar, M., Noori, M.^s, **Egilmez, G.** and Tatari, O.* , 2014, “Stochastic decision modeling for sustainable pavement designs”, *International Journal of Life Cycle Assessment, Springerlink*, (IF: 3.173) June 2014, Volume 19, Issue 6, Pages 1185–1199. <http://dx.doi.org/10.1007/s11367-014-0723-4>.
- [7] Kucukvar, M., Gumus, S., **Egilmez, G.**, and Tatari, O.* , 2014, “Ranking the sustainability performance of pavements: An intuitionistic fuzzy decision-making method”, *Automation in Construction, Elsevier*, (IF: 3.432) Volume 52, Issue 5, 2014. <http://dx.doi.org/10.1016/j.autcon.2013.12.009>.

- [6] **Egilmez, G.***, Kucukvar, M.^s, Tatari, O. and Bhutta, M.K., 2014, "Supply Chain Sustainability Assessment of US Food Manufacturing: A Life Cycle-based Frontier Approach", *Resources Conservation and Recycling*, Elsevier, (IF: 4.141) Volume: 82, January 2014, Pages 8–20. <http://dx.doi.org/10.1016/j.resconrec.2013.10.008>.
- [5] **Egilmez, G.*** and Sürer, G.A., 2013, "The Impact of Risk on the Integrated Cellular Design and Control", *International Journal of Production Research*, Taylor and Francis (IF: 2.623), Volume 52, Issue 5, Pages 1455-1478, <http://dx.doi.org/10.1080/00207543.2013.844375>.
- [4] **Egilmez, G.***, Sürer, G.A.* and Huang, J.^s, 2012, "Stochastic Cellular Manufacturing System Design Subject To Maximum Acceptable Risk Level", *Computers and Industrial Engineering*, Elsevier, (IF: 3.195) Volume 63, Issue 4, December 2012, Pages 842–854, <http://dx.doi.org/10.1016/j.cie.2012.05.006>.
- [3] **Egilmez, G.*** and McAvoy, D., 2013, "Benchmarking Road Safety of U.S. States: A DEA-Based Malmquist Productivity Index Approach", *Accident Analysis and Prevention*, Elsevier, (IF: 3.244) Volume 53, Pages 55-64, <http://dx.doi.org/10.1016/j.aap.2012.12.038>
- [2] **Egilmez, G.***, Kucukvar, M. and Tatari, O., 2013, "Sustainability Assessment of U.S. Manufacturing Sectors: An Economic Input Output-based Frontier Approach", *Journal of Cleaner Production*, Elsevier, (IF: 5.651) Volume 53, 15 August 2013, Pages 91–102, <http://dx.doi.org/10.1016/j.jclepro.2013.03.037>.
- [1] **Egilmez, G.*** and Tatari, O.* 2012, "A Dynamic Modeling Approach To Highway Sustainability: Strategies to Reduce the Overall Impact", *Transportation Research Part D: Transport and Environment*, Elsevier, Elsevier, (IF: 3.445) Vol: 46. I:7, Pages: 1086-1096. <http://dx.doi.org/10.1016/j.tra.2012.04.011>.

Edited Book

-**Egilmez, G.**, 2018, *Agricultural Value Chain*, Intech Open Publishers, ISBN: 978-1-78923-007-9 ([Pdf](#))

Refereed Book Chapter

- [2] Park, Y.S.^s, **Egilmez, G.***, and Kucukvar, M., 2016, "Chapter 24: Cradle-to-gate Life Cycle Analysis of Agricultural and Food Production in the U.S.: A TRACI Impact Assessment", in *Sustainability Challenges in the Agro-Food Sector*, Wiley Blackwell Publishers, UK (*In Print*)
- [1] **Egilmez, G.**, Sürer, G.A.* and Ozguner, O.^s 2011. "Stochastic Cellular Manufacturing System Design with Hybrid Similarity Coefficient", in "*Manufacturing Systems*", ISBN: 979-953-307-493-0.

Conference Proceedings (Refereed Papers)

- [15] Patel, H.^s, Thakkar, S.^s, **Egilmez, G.***, 2020, "A PCA Application to Assess OECD Countries' Sustainable Development Performance", 51st Annual Conference of the Decision Sciences Institute, 21 - 23 November 2020 (Virtual)
- [14] **Egilmez, G.***, 2019, "Project-based service-learning integration in data analytics and statistics courses", Decision Science Institute's 50th Annual Conference, November 22-25, 2019, New Orleans, LA ([Pdf](#))
- [13] **Egilmez, G.***, Viscomi, P.A., Carnasciali, M.L., 2019, "Assessing an Online Engineering Ethics Module from Experiential Learning Perspective", American Society of Engineering Education, 126th Annual Conference and Exhibition, June 16-19, Tampa, FL, USA ([Pdf](#))
- [12] **Egilmez, G.***, Sormaz, D., Gedik, R., 2018, "A Project-based Learning Approach in Teaching Simulation to Undergraduate and Graduate Students", American Society of Engineering Education, 125th Annual Conference and Exhibition, June 24-27, Salt Lake City, UT, USA ([Pdf](#))
- [11] **Egilmez, G.***, Gedik, R., 2018, "A Gamification Approach for Experiential Education of Inventory Control", American Society of Engineering Education, 125th Annual Conference and Exhibition, June 24-27, Salt Lake City, UT, USA ([Pdf](#))
- [10] Park, Y.S.^s, Lim S, **Egilmez, G.**, and Szmerekovsky, J., 2016, "Environmental efficiency assessment of U.S. transportation sector: A slack based data envelopment analysis approach." *Transportation Research Record*, Annual Meeting, Washington DC, USA ([Pdf](#))
- [9] Erenay, B.*, **Egilmez, G.**, and Suer, G.A., 2015, "Stochastic Capacitated Lot Sizing Subject to Maximum Acceptable Risk Level of Overutilization", 26th Annual POMS Conference, May 8-11, Washington DC, USA

- [8] **Egilmez, G.** and McAvoy, D.*, 2013, “*Benchmarking Road Safety of US States: A Frontier Approach*”, Transportation Research Board 92nd Annual Meeting, 13-2122, 13-17 January, Washington DC
- [7] **Egilmez, G.** and Süer, G.A.*, 2012, “*Multi-period Cell Loading in Cellular Manufacturing Systems*”, IEOM, July 3-6, Istanbul, Turkey.
- [6] **Egilmez, G.***, Süer, G.A. and Celikbilek, C., 2012, “*Stochastic Identical Parallel Machine Scheduling to Minimize Risky Jobs*”, IIE Annual Conference and Expo, May 19-23, Orlando FL.
- [5] **Egilmez, G.*** and Süer, G.A., 2012, “*Stochastic Single Machine Family Scheduling to Minimize the Number of Risky Jobs*”, POMS, April 20-23, Chicago, IL USA.
- [4] **Egilmez, G.***, Süer, G.A. and Ozgüner, O., 2012, “*Capacitated Cellular Manufacturing System Design: A Genetic Algorithm Approach*”, POMS, April 20-23, Chicago, IL USA.
- [3] **Egilmez, G.*** and Süer, G.A., 2011, “*Stochastic Manpower Allocation and Cell Loading in Cellular Manufacturing Systems*”, The 41st International Conference on Computers and Industrial Engineering, October 23-26, Los Angeles, CA USA.
- [2] **Egilmez, G.*** and Süer, G.A., 2011. “*Stochastic Cell Loading, Family and Job Sequencing in a Cellular Manufacturing Environment*”, The 41st International Conference on Computers and Industrial Engineering, October 23-26, Los Angeles, CA USA.
- [1] Süer, G.A., Mese, E.M. and **Egilmez, G.**, 2011, “*Cell Loading, Family and Job Sequencing to Minimize TT*” International Conference on Intelligent Manufacturing Logistics Systems, February 27 – March 01, Chung-Li, Taiwan.

Conference Proceedings (Refereed Abstracts)

- [50] Reitz, D.*, **Egilmez, G.**, 2020, “*Practical application of sustainability principles/model with examples for both multinational and SME*”, Institute of Industrial and Systems Engineers Virtual Conference and Expo, November 1-3, 2020
- [49] Lamichhane, S., **Egilmez, G.***, Gedik, R., 2020, “*A PCA Application to Assess OECD Countries' Sustainable Development Performance*”, Institute of Industrial and Systems Engineers Virtual Conference and Expo, November 1-3, 2020
- [48] Ezici, B., **Egilmez, G.***, Gedik, R., 2019, “*An Integrated MRIO And DEA Approach for Renewable and Nonrenewable Energy Analysis of The U.S. Manufacturing*” Decision Science Institute’s 50th Meeting, November 23-25, 2019, New Orleans, LA
- [47] Bai, L., Gedik, R.*, **Egilmez, G.**, “*Predicting Severity and Investigating Risk Factors of Traffic Crashes in Connecticut*” Decision Science Institute’s 50th Meeting, November 23-25, 2019, New Orleans, LA
- [46] Ezici, B.s, **Egilmez, G.***, and Gedik, R., 2019, “*Renewable and Nonrenewable Energy Use Analysis of the U.S. Manufacturing: A Time-series MRIO Approach*”, 30th POMS Annual Conference, May 2-6, 2019, Washington DC
- [45] Erenay, B.*, **Egilmez, G.**, Sanni, S.s 2018, “*Benchmarking logistics performances of emerging economies: A DEA-based Malmquist productivity index approach*”, Decision Sciences Institute 49th Annual Meeting, November 17-19, 2018, Chicago, IL
- [44] **Egilmez, G.**, Gedik, R, Oztanriseven, F.*, Ezici, B., 2018, “*A Multi-Region Input-Output Analysis of U.S. Manufacturing Industries*”, Decision Sciences Institute 49th Annual Meeting, November 17-19, 2018, Chicago, IL
- [43] **Egilmez, G.***, Erenay, B., 2018, “*A project-based experiential learning approach in Project Management course*”, Decision Sciences Institute 49th Annual Meeting, November 17-19, 2018, Chicago, IL
- [42] Ezici, B.s, **Egilmez, G.***, Gedik, R., 2018, “*Energy Footprint Analysis of U.S. Manufacturing: A Multi Region Input Output Framework*”, Institute of Industrial and Systems Engineers Annual Conference and Expo, May 19-22, 2018, Orlando, FL
- [41] Saber, M.s, **Egilmez, G.***, Ezici, B., 2018, “*Multi Region Emery and End Point Impact Life Cycle Assessment: Case of U.S. Manufacturing*”, Institute of Industrial and Systems Engineers Annual Conference and Expo, May 19-22, 2018, Orlando, FL
- [40] **Egilmez, G.*** and Andrulat, A.s, 2017, “*Teaching Inventory Control with Gamification*”, 48th Annual Meeting of Decision Sciences Institute, Washington DC, November 19, 2017.

- [39] **Egilmez, G.*** and Gedik, R., 2017, "Investigating Production and Order Cycle Times in a Metal Powder Production Plant", 48th Annual Meeting of Decision Sciences Institute, Washington DC, November 19, 2017.
- [38] Erenay, B. and **Egilmez, G.***, 2017, "Engineering Interventions for Workplace Safety: Comparison of Baseline and Follow-up CTD Reports", 48th Annual Meeting of Decision Sciences Institute, Washington DC, November 19, 2017.
- [37] **Egilmez, G.*** and Colletti, A.^s, 2017, "Identifying the Barriers that Prevent the Effective Decision Making for Sustainable Development Across the Society and Organizations", Institute of Industrial and Systems Engineers Annual Conference, May 20-23, 2017, Pittsburgh, PA
- [36] **Egilmez, G.***, Aslam, M.^s, Gedik, R., 2017, "Layer Analysis of the CO2 Sources in the U.S. Economic Supply Chains: An Input-Output Analysis", Institute of Industrial and Systems Engineers Annual Conference, May 20-23, 2017, Pittsburgh, PA
- [35] Gedik, R.*^s, Ausseil, R.^s, Kalathia, D.^s, **Egilmez, G.**, 2017, "A Constraint Programming Approach to Minimize Makespan on Unrelated Parallel Machines with Sequence-Dependent Setup Times", Institute of Industrial and Systems Engineers Annual Conference, May 20-23, 2017, Pittsburgh, PA
- [34] Chang, B.*^s, Starcher, K., Aktas, C., Chen, G., **Egilmez, G.**, 2017, "Economic Evaluation of Wind Energy Investments in Texas", Institute of Industrial and Systems Engineers Annual Conference, May 20-23, 2017, Pittsburgh, PA
- [33] Celikbilek, C.*^s, **Egilmez, G.**, Erenay, B., 2017, "Optimization and Predictive Modeling for the US States Energy Industry", Production and Operations Management Society (POMS) 28th Annual Conference, Seattle, WA, May 5-8, 2017.
- [32] **Egilmez, G.***, 2016, "Triple-Bottom-Line Sustainability Assessment of University of New Haven", 47th Annual Meeting of Decision Sciences Institute, Austin, TX, November 19, 2016.
- [31] Onat, N.C., Kucukvar, M., Tatari, O., **Egilmez, G.***, 2016, "Systems Thinking in Life Cycle Sustainability Assessment: The Case for Alternative Vehicle Options", Social LCA 2016, Harvard University, Cambridge, MA, June 13-15, 2016
- [30] **Egilmez, G.***, Park, Y.S.^s, and Kucukvar, K., 2016, "Emergy and End-point Impact Assessment of Agricultural and Food Production in the United States: A Supply Chain-linked Ecologically-based Life Cycle Assessment" Institute of Industrial and Systems Engineers Annual Conference and Expo, May 21 - 21, 2016.
- [29] Onat, N.C.^s, Kucukvar, M., Tatari, O., **Egilmez, G.***, 2016. "Dynamic Life Cycle Sustainability Assessment Framework for Electric Vehicles in the U.S." Transportation Research Board (TRB), 95th Annual Meeting, January 10-14, 2016, Washington, D.C, USA.
- [28] **Egilmez, G.**, Aslam, M. ^s and Kucukvar, M. 2015, A Layer Analysis Framework to Investigate the CO2 Sinks in the U.S. Manufacturing Supply Chain Network, INFORMS Annual Meeting, November 8-11, 2-15, Philadelphia, PA, USA
- [27] Kucukvar M.*^s, and **Egilmez, G.**, 2015, "Integration of world economic input-output data to carbon footprint hot-spot analysis". Big Data Analysis and Education Conference Europe, co-organized with the IBM U.S and IBM Turkey, July 30-31, 2015, Istanbul Sehir University, Istanbul, Turkey.
- [26] **Egilmez, G.**, and Kucukvar, M.*^s, 2015, "A framework for sustainability accounting of U.S. manufacturing supply chains: New insights from time-series economic data." Big Data Analysis and Education Conference Europe, co-organized with the IBM U.S and IBM Turkey, July 30-31, 2015, Istanbul Sehir University, Istanbul, Turkey.
- [25] **Egilmez, G.**, 2015, "Integration of Input Output Modeling with Life Cycle Assessment for Agricultural and Food Industries' Environmental Sustainability Assessment", 2015 ASABE North Central Intersectional Conference, Biltmore, Fargo, ND USA
- [24] Onat, N.C.^s, **Egilmez, G.**, Tatari, O.*^s, 2015, "Dynamic Modeling of the Green Building Movement in the U.S.: Strategies to Reduce Carbon Footprint of Residential Building Stock" ICSBIE 2015: International Conference on Sustainable Building and Infrastructure Engineering, Jul 29-30, 2015, Istanbul, Turkey

- [23] **Egilmez, G.**, Erenay, B.* and Suer, G.A., (2015) "Stochastic Capacitated Hybrid Manufacturing System Design by Using the Cell Similarity Threshold to Combine Cellular and Process Layouts", 15th IFAC Symposium on Information Control Problems in Manufacturing. May 11-13, 2015, Ottawa, Canada
- [22] **Egilmez, G.***, Kucukvar, M. and Park, Y.S.s, "Integrating scope-based carbon footprint modeling into global manufacturing supply chains", *IIE Annual Conference and Expo*, May 30 – June 2, 2015, Nashville, Tennessee.
- [21] **Egilmez, G.***, Kucukvar, M. and Park, Y.S.s, "Supply Chain-linked Triple Bottom Line Life Cycle Assessment of the US Manufacturing and Consumption Nexus", *IIE Annual Conference and Expo*, May 30 – June 2, 2015, Nashville, Tennessee.
- [20] **Egilmez, G.*** and Park, Y.S.s, "Eco-efficiency Analysis of Manufacturing and Transportation Nexus in the U.S. with PCA", *INFORMS Annual Meeting*, November 9-12, 2014, San Francisco, California.
- [19] Park, Y.S. s and **Egilmez, G.***, "Life Cycle based Environmental Impact Intensity Assessment of National Freight Transportation", *INFORMS Annual Meeting*, November 9-12, 2014, San Francisco, California.
- [18] Gumus, S., **Egilmez, G.*** and Kucukvar, M., 2014, "Ranking Sustainability Performance of the US and Canada Metropolises: An IF-MCDM Approach", *INFORMS Annual Meeting*, November 9-12, 2014, San Francisco, California.
- [17] Bhutta, M.K.S., **Egilmez, G.***, Kucukvar, M., Tatari, O., 2014, "A Life Cycle Frontier Approach to Supply Chain Sustainability Assessment in the U.S. Food Manufacturing Sectors", *DSI Annual Meeting*, November 22-25, 2014, Tampa, FL, USA.
- [16] **Egilmez, G.***, Suer, G.A. and Huang, J., 2014, "Stochastic Manufacturing Cell Formation subject to Maximum Allowable Risk", *2nd Annual International Conference on Industrial, Systems and Design Engineering*, 23-26 June 2014, Athens, Greece.
- [15] **Egilmez, G.*** and Kucukvar, M., 2014, "Transportation-focused Environmental Impact Assessment of U.S. Manufacturing: A Life Cycle Analysis", *IIE Annual Conference and Expo*, May 31 – June 3, 2014, Montreal, Canada.
- [14] Kucukvar, M. and **Egilmez, G.***, 2014, "Ecological Footprints of U.S. Manufacturing Industry", *IIE Annual Conference and Expo*, May 31 – June 3, 2014, Montreal, Canada.
- [13] Erenay, B.*, Suer, G.A. and **Egilmez, G.**, 2014, "Stochastic Capacitated Plant Location to Minimize the Total Investment and Transportation Cost", *IIE Annual Conference and Expo*, May 31 – June 3, 2014, Montreal, Canada.
- [12] Celikbilek, C.*, Suer, G.A. and **Egilmez, G.**, 2014, "Manufacturing Cell Loading and Shipment Optimization: A Joint GA and ANN Approach", *IIE Annual Conference and Expo*, May 31 – June 3, 2014, Montreal, Canada.
- [11] **Egilmez, G.**, Kucukvar, M.*, and Tatari, O., 2013, "Life Cycle Sustainability Assessment of Building-related Waste Recycling Considering the Onsite and Supply Chain Impacts", *ChemTech 2013*, 26-28, December, Istanbul, Turkey.
- [10] **Egilmez, G.***, Gumus, S. and Kucukvar, M., 2013, "Sustainability Performance Assessment of U.S. Food Manufacturing: A Fuzzy Eco-efficiency Analysis", *INFORMS Annual Meeting*, October 6-9, 2013. Minneapolis, MN, USA.
- [9] Kucukvar, M., **Egilmez, G.***, and **Tatari, O.**, 2013, "Supply Chain Sustainability Assessment of the U.S. Manufacturing Sectors", *INFORMS Annual Meeting*, October 6-9, 2013. Minneapolis, MN, USA .
- [8] **Egilmez, G.***, Kucukvar, M. and Tatari, O., and Bhutta, M.K.S., 2013, "Supply Chain Sustainability Assessment of the Food Manufacturing Sectors in the United States", *International IIE Conference*, June 26-28, Istanbul, Turkey.
- [7] Kucukvar, M.*, Noori, M., Tatari, O., **Egilmez, G.**, 2013, "Multi-criteria Decision Analysis of the U.S. Wind Power Technologies: A Triple Bottom-Line Accounting", *International IIE Conference*, June 26-28, Istanbul, Turkey.
- [6] Celikbilek, C.*, **Egilmez, G.**, and Suer, G.A., 2013, "Stochastic Operating Room Capacity Allocation", *International IIE Conference*, June 26th-28th, Istanbul, Turkey

- [5] **Egilmez, G.***, Kucukvar, M.^s and Tatari, O., 2013, "Benchmarking the Sustainability Performance of U.S. Manufacturing Sectors from an Eco-efficiency Perspective", *IIE Annual Conference and Expo*, May 18-22, 2013, San Juan, Puerto Rico.
- [4] **Egilmez, G.*** and Schwerha, D., 2013, "Introduction of a Learning Effect into Single Machine Stochastic Scheduling To Improve Model Performance on Risky Jobs", *IIE Annual Conference and Expo*, May 18-22, 2013, San Juan, Puerto Rico.
- [3] Erenay, B.^s, **Egilmez, G.*** and Suer, G.A., 2013, "Stochastic Capacitated Lot Sizing subject to Maximum Acceptable Risk Level", *IIE Annual Conference and Expo*, May 18-22, 2013, San Juan, Puerto Rico.
- [2] **Egilmez, G.***, Kucukvar, M.^s and Tatari, O., 2013, "Sustainable Consumption and Investment Strategies for U.S. Final Demand Categories: A Macro-Level Analysis", *IIE Annual Conference and Expo*, May 18-22, 2013, San Juan, Puerto Rico.
- [1] **Egilmez, G. ^{s*}**, Kucukvar, M.^s and Tatari, O., 2012, "Assessing the Sustainability Performance of U.S. Industrial Sectors: A Life Cycle Analysis", *IIE Annual Conference and Expo*, May 19-23, Orlando FL.

Conference Proceedings (Refereed Posters)

- [2] Yong, P.S. and **Egilmez, G.***, 2015, "Assessing the Ecosystem Goods and Service of U.S Modal Freight: Supply Chain Linked Cradle-to-Gate Ecological Based Life Cycle Model", International Symposium on Systematic Approaches to Environmental Sustainability in Transportation (ISSAEST), August 2-5, 2015 | Fairbanks, Alaska, USA
- [1] McAvoy, D.* , **Egilmez, G.** and Park, Y.S.^s, 2015, "Integrating Self-Organizing Maps into Road Safety Benchmarking to Provide Improvement Paths: DEA-Based Kohonen Network Approach", January 11-15, 2015, in Washington, D.C.

Poster Presentations (Nonrefereed)

- [12] Lacmichane, S.^s , **Egilmez, G.**, Gedik, R., 2019, "Benchmarking OECD Countries Sustainable Development Performance: A Goal-Specific PCA Approach", Graduate Student Showcase Spring 2019, University of New Haven, West Haven, CT
- [12] Bai, L.^s, Gedik, R., **Egilmez, G.**, 2019, "Predicting Severity of Traffic Crashes in Connecticut", Graduate Student Showcase Spring 2019, University of New Haven, West Haven, CT
- [11] Callia, R. ^s, , Gedik, R., and **Egilmez, G.**, 2018, "Assessing Supply Chain Resilience of the Manufacturing Industry in CT", Summer Undergraduate Research Fellowship (SURF)", SURF Poster Day, Fall 2018, University of New Haven, West Haven, CT
- [10] Vohora M.^s, and **Egilmez, G.**, 2017, "Road Safety in CT: Application of Data Analytics on Severity of Road Accidents", Graduate Student Expo Fall 2017, University of New Haven, West Haven, CT
- [9] Ezici, B.^s, and **Egilmez, G.**, 2017, "Global & Domestic Energy Use Impact Assessment of the U.S. Manufacturing", Graduate Student Expo Fall 2017, University of New Haven, West Haven, CT
- [8] Abbood, K.^s, and **Egilmez, G.**, 2016, "Multi-region Input-Output-based Carbon and Energy Footprint Analysis of U.S. Manufacturing", Graduate Student Expo Fall 2016, University of New Haven, West Haven, CT
- [7] Owen, J.^s, **Egilmez, G.**, and Simson, A., 2016, "Should Neodymium Be Recycled?", SURF Project Presentation Fall 2016, University of New Haven, West Haven, CT
- [6] Arani, O.^s, Vahid, M.^s, and **Egilmez, G.**, 2016, "Multi-region Input-Output-based Carbon and Energy Footprint Analysis of U.S. Manufacturing", Graduate Student Expo Spring 2016, University of New Haven, West Haven, CT
- [5] Park, Y.S.^s, Lim, S. H., and **Egilmez, G.**, 2016, "Environmental Efficiency Assessment of U.S. Transport Sector: A Slack-based Data Envelopment Analysis Approach", Transportation Research Board (TRB), 95th Annual Meeting, January 10-14, 2016, Washington, D.C, USA.
- [4] Onat, N.C.^s, Kucukvar, M., Tatari, O., **Egilmez, G.**, 2016, "Dynamic Life Cycle Sustainability Assessment Framework for Electric Vehicles in the U.S." Transportation Research Board (TRB), 95th Annual Meeting, January 10-14, 2016, Washington, D.C, USA.

- [3] Aslam, M.^s, and **Egilmez, G.**, 2015, "A Policy Programming Model for Optimized Carbon Footprint Reduction Strategies: Case study of Residential, Commercial and Industrial Buildings", ND EPSCoR State Conference - April 22nd, 2015, Fargo, ND.
- [2] Yong, P.S.^s, and **Egilmez, G.**, 2015, "Carbon footprint reduction optimization for manufacturing and freight logistics nexus in U.S: Life cycle based linear programming approach", 56TH Annual Transportation Research Forum, March 12-14, 2015, Atlanta, GA.
- [1] Yong, P.S.^s, and **Egilmez, G.**, 2015, "Assessing the Ecosystem Goods and Service of U.S Modal Freight: Supply Chain Linked Cradle-to-Gate Ecological Based Life Cycle Model", International Symposium on Systematic Approaches to Environmental Sustainability in Transportation (ISSAEST), August 2-5, 2015 | Fairbanks, Alaska, USA.

Dissertation

- **Egilmez, G.**, 2012, "Stochastic Cellular Manufacturing System Design and Control", Industrial and Systems Engineering, Ohio University (Adviser: Dr. Gürsel A. Sürer).
https://etd.ohiolink.edu/ap/10?10957636989098::NO:10:P10_ETD_SUBID:2139

Theses

1. **Egilmez, G.**, 2013, "Road Safety Assessment of U.S. States: A joint frontier and prediction modeling approach", Civil Engineering, Ohio University (Adviser: Dr. Deborah S. McAvoy).
https://etd.ohiolink.edu/ap:10:0::NO:10:P10_ETD_SUBID:87990
2. **Egilmez, G.**, 2009, "Consumption-driven Finite Capacity Inventory Planning and Production Control", Industrial and Systems Engineering, Ohio University (Adviser: Dr. Gürsel Suer).
https://etd.ohiolink.edu/ap/10?4448771635608::NO:10:P10_ETD_SUBID:61278

Other

- **Egilmez, G.** and McAvoy, D., 2013, "Benchmarking Road Safety of US States: A DEA-based Malmquist Productivity Index Approach", Key Research Articles, Psychology Progress.

GRANTS, CONTRACTS & INDUSTRY PROJECTS

- **Egilmez, G. (PI)**, "Process Improvement of Lake Gaillard Water Treatment Plant with Discrete Event Simulation Modeling", \$9, 867.17, Industry Project, Contract, Spring 2019, Regional Water Authority.
- **Egilmez, G. (PI)**, "Teaching Project Management with Virtual Reality and Investigating its Impacts on Students' Learning Experience and Instructor's Teaching Experience", \$3,250, Summer Research Grant, Summer 2018, University of New Haven.
- Ricozzi, C. (PI-Undergraduate Student), **Egilmez, G. (Faculty Mentor)**, Gedik, R. (Faculty Mentor), "Assessing Supply Chain Resilience of the Manufacturing Industry in CT", Summer Undergraduate Research Fellowship (SURF), \$1,500, Summer, 2018, University of New Haven, West Haven, CT
- **Egilmez, G. (PI)**, "Sustainability Assessment of Connecticut's Economy: A Specific Analysis of CT Manufacturing Industry and its Global Resource Dependency", \$3,250, Summer Research Grant, Summer 2017, University of New Haven
- Andrulat, A. (PI- Undergraduate Student) and **Egilmez, G. (Faculty Mentor)**, "Developing a Serious Game to Enhance Experiential Education at UNH: An Application of Gamification to the Green Supply Chain Management", NASA Connecticut Space Grant Consortium, Spring, 2017, \$4,410.00
- Johnson, O. (PI-Undergraduate Student), **Egilmez, G. (Faculty Mentor)**, Simson, A. (Faculty Mentor), "Sustainability Assessment of Rare Earth and Precious Metals in the CT Region" Summer Undergraduate Research Fellowship (SURF), \$1,450, Summer 2016, University of New Haven, West Haven, CT.
- Andrulat, A., Huseini, I., and Scneph, I. (Undergraduate Students), **Egilmez (PI)**, Simulation Modeling of Metal Powder Production Plant, Fall 2016, Inventec Performance Chemicals, Deep River, CT

- **Egilmez, G. (Project Assistant)**, “Work Safety Assessment of Ohio Transportation Sector”, Summer 2011, Division of Safety and Hygiene, Bureau of Workers’ Compensation, Pickerington, OH
- **Egilmez, G. (Project Assistant)**, “Claims’ Severity Analysis”, Summer 2011, Division of Safety and Hygiene, Bureau of Workers’ Compensation, Pickerington, OH

PRESENTATIONS

- [34] “A PCA Application to Assess OECD Countries' Sustainable Development Performance”, Institute of Industrial and Systems Engineers Virtual Conference and Expo, November 1-3, 2020
- [33] “Project-based Service-learning Integration in Data Analytics and Statistics Courses”, Decision Science Institute’s 50th Meeting, November 23-25, 2019, New Orleans, LA
- [32] “An Integrated MRIO And DEA Approach for Renewable and Nonrenewable Energy Analysis of The U.S. Manufacturing”, Decision Science Institute’s 50th Meeting, November 23-25, 2019, New Orleans, LA
- [31] “Renewable and Nonrenewable Energy Use Analysis of the U.S. Manufacturing: A Time-series MRIO Approach”, 30th POMS Annual Conference, May 2-6, 2019, Washington DC
- [30] “A project-based experiential learning approach in Project Management Course”, 49th meeting of Decision Science Institute, Chicago IL,
- [29] "A Project-based Learning Approach in Teaching Simulation to Undergraduate and Graduate Students", American Society of Engineering Education, 125th Annual Conference and Exhibition, June 24-27, 2018, Salt Lake City, UT, USA
- [28] “A Gamification Approach for Experiential Education of Inventory Control", American Society of Engineering Education, 125th Annual Conference and Exhibition, June 24-27, Salt Lake City, 2018, UT, USA
- [27] “Teaching Inventory Control with Gamification”, 48th Annual Meeting of Decision Sciences Institute, Washington DC, November 19, 2017.
- [26] “Investigating Production and Order Cycle Times in a Metal Powder Production Plant”, 48th Annual Meeting of Decision Sciences Institute, Washington DC, November 19, 2017.
- [25] “Carbon Footprint Analysis of US Manufacturing”, Food for thought – Faculty Research Luncheon: Industry and Climate Change, University of New Haven, Bartels Alumni Center, October 10, 2017
- [24] “Layer Analysis of the CO2 Sources in the U.S. Economic Supply Chains: An Input-Output Analysis”, Institute of Industrial and Systems Engineers Annual Conference, May 20-23, 2017, Pittsburgh, PA
- [23] “Identifying the Barriers that Prevent the Effective Decision Making for Sustainable Development Across the Society and Organizations”, Institute of Industrial and Systems Engineers Annual Conference, May 20-23, 2017, Pittsburgh, PA
- [22] “Triple-Bottom-Line Sustainability Assessment of University of New Haven”, 47th Annual Meeting of Decision Sciences Institute, Austin, TX, November 18-21, 2016.
- [21] “Emergy and End-point Impact Assessment of Agricultural and Food Production in the United States: A Supply Chain-linked Ecologically-based Life Cycle Assessment” Institute of Industrial and Systems Engineers Annual Conference and Expo, May 21 – 21, 2016.
- [20] “A Layer Analysis Framework to Investigate The Co2 Sinks In The Us Manufacturing Supply Chain Network”, INFORMS Annual Meeting, November 8-11, 2015, Philadelphia, PA
- [19] “A framework for sustainability accounting of U.S. manufacturing supply chains: New insights from time-series economic data.” Big Data Analysis and Education Conference Europe, co-organized with the IBM U.S and IBM Turkey, July 30-31, 2015, Istanbul Sehir University, Istanbul, Turkey.
- [18] “Eco-efficiency Analysis of Manufacturing and Transportation Nexus in the U.S. with PCA”, *INFORMS Annual Meeting*, November 9-12, 2014, San Francisco, California.
- [17] “Ecological Footprints of U.S. Manufacturing Industry”, IIE Annual Conference and Expo, May 31 – June 3, 2014, Montreal, Canada.
- [16] “Stochastic Capacitated Plant Location to Minimize the Total Investment and Transportation Cost”, IIE Annual Conference and Expo, May 31 – June 3, 2014, Montreal, Canada.

- [15] "Transportation-focused Environmental Impact Assessment of U.S. Manufacturing: A Life Cycle Analysis", IIE Annual Conference and Expo, May 31 – June 3, 2014, Montreal, Canada.
- [14] "Life Cycle Sustainability Assessment of Building-related Waste Recycling Considering the Onsite and Supply Chain Impacts", ChemTech 2013, 16-18, December, Istanbul, Turkey.
- [13] "Sustainability Performance Assessment of U.S. Food Manufacturing: A Fuzzy Eco-efficiency Analysis", INFORMS Annual Meeting, October 6-9, 2013. Minneapolis, MN, USA.
- [12] "Sustainable Supply Chain Management and the Triple Bottom Line EIO Modeling", INFORMS Annual Meeting, October 6-9, 2013. Minneapolis, MN, USA.
- [11] "Benchmarking the Sustainability Performance of U.S. Manufacturing Sectors from an Eco-efficiency Perspective", IIE Annual Conference and Expo, May 18-22, 2013, San Juan, Puerto Rico.
- [10] "Introduction of a Learning Effect Into Single Machine Stochastic Scheduling to Minimize the Number of Risky Jobs", IIE Annual Conference and Expo, May 18-22, 2013, San Juan, Puerto Rico.
- [9] "Sustainability Assessment of U.S. Manufacturing Sectors: A Life Cycle Assessment Approach", IIE Annual Conference and Expo, May 19-23, 2012, Orlando FL USA.
- [8] "Stochastic Identical Parallel Machine Scheduling to Minimize Risky Jobs", *IIE Annual Conference and Expo*, May 19-23, 2012, Orlando FL USA.
- [7] "Stochastic Identical Parallel Machine Scheduling to Minimize Risky Jobs", Ohio University Research Fair, May 3, 2012, Athens, OH USA.
- [6] "Stochastic Cellular Manufacturing System Design Subject to Maximum Acceptable Risk Level", Research Workshop, May 2, 2012, Department of Industrial and Systems Engineering, Ohio University, Athens, OH USA.
- [5] "Single Machine Stochastic Family and Job Scheduling to minimize the number of risky jobs", *23rd Annual POMS Conference*, April 20-23, 2012, Chicago, IL USA.
- [4] "Capacitated Cellular Manufacturing System Design: A Genetic Algorithm Approach", *23rd Annual POMS Conference*, April 20-23, 2012, Chicago, IL USA.
- [3] "Claims' Frequency and Severity Assessment of Ohio Industrial Sectors: A joint application of Data Envelopment Analysis, Artificial Neural Networks and Dynamic Simulation Modeling", Proposal Presentation, Ohio Bureau of Workers Compensation, September 5, 2011, Pickerington, OH USA.
- [2] "Stochastic Cell Loading, Family and Job Sequencing in a Cellular Manufacturing Environment." *41st International Conference on Computers and Industrial Engineering*, October 23-26, 2011, Los Angeles, CA USA.
- [1] "Stochastic Manpower Allocation and Cell Loading in Cellular Manufacturing Systems." *41st International Conference on Computers and Industrial Engineering*, October 23-26, 2011, Los Angeles, CA USA.

SEMINARS & WEBINARS

- [10] "Assessing Eco-efficiency of the U.S. Manufacturing Industries from Renewable vs. Non-renewable Energy Use Perspective", Mechanical, Industrial, and Biomedical Engineering Research Seminars, University of New Haven, West Haven, CT, November 1, 2019
- [9] "System Dynamics Simulation Modeling and An Application to U.S. Highway System Sustainability", Manufacturing Simulation Center, University of Connecticut, Storrs, CT, October 25, 2019
- [8] "LCA Methods and the Need for a Paradigm Shift for Climate Change Communication (3C)", Institute of Industrial and Systems Engineers, Sustainable Development Division, March 10, 2017 (*Webinar*)
- [7] "History of Modern Turkey: The Rise of Mustafa Kemal Ataturk to Present Day Turkey", Guilford Community Center, Guilford, 04/03/2016, CT, USA
- [6] "How to be more effective and efficient in academia while having too much on plate?" Department of Mathematics, Turkish Military Academy, January 6th, 2014, Ankara, Turkey.
- [5] "Higher Education in the U.S.: An Overview", College of Business, Mehmet Akif Ersoy University (MAKU), December 25th, 2013, Burdur, Turkey.

- [4] "Sustainable Systems Analysis (SSA) - Research Overview", Department of IME Graduate Seminar, December 6th, 2013, NDSU, Fargo, ND, USA.
- [3] "The Impact of Risk on the Integrated Manufacturing System Design and Control", 02/08/2013, Eurofins Lancaster Laboratories Environmental, Richmond, VA, USA.
- [2] "Stochastic Cell Loading Family Job Sequencing", Research Workshop, April 25, 2012, Department of Industrial and Systems Engineering, Ohio University, Athens, OH USA.
- [1] "Benchmarking U.S. States' Road Safety: A Frontier Approach", Civil Engineering Graduate Research Seminar, Ohio University, April 17, 2012, Athens, OH USA.

UNIVERSITY SERVICE

1. *Committee Member*, Faculty Senate, University of New Haven, (Fall 2020, Spring 2023)
2. *Undergraduate Course Coordinator*, EASC 2232 Project Management and Engineering Economic Analysis, Tagliatela College of Engineering, University of New Haven (Spring, 2017 - Present).
3. *Faculty Adviser*, Industrial and Systems Engineering Student Chapter, University of New Haven, (Fall 2018-Present).
4. *Committee Member*, University Library Advisory Committee, University of New Haven, (Fall, 2017-Present).
5. *Committee Member*, Non-tenure-track Faculty Hiring Committee, Department of Mechanical and Industrial Engineering, University of New Haven (Fall, 2018-Spring, 2019).
6. *Committee Member*, Business Analytics Program Ad-Hoc Committee, College of Business, University of New Haven, (Fall, 2018-Spring 2019).
7. *Program Coordinator*, MS Industrial Engineering, Department of Mechanical and Industrial Engineering, University of New Haven, (Spring, 2018).
8. *Committee Chair*, College Undergraduate Curriculum Committee, Tagliatela College of Engineering, University of New Haven (Spring, 2018).
9. *Committee Member*, College Undergraduate Curriculum Committee (CUUC), Tagliatela College of Engineering, University of New Haven (Fall, 2017).
10. *Committee Member*, University Undergraduate Curriculum Committee (UUC), Representative for the Tagliatela College of Engineering, University of New Haven (Fall 2016-Spring 2017).
11. *Committee Member*, Healthcare Minor Committee, Department of Industrial and Manufacturing Engineering, North Dakota State University (2014-2015).
12. *Committee Member*, Visiting Faculty Hiring Committee, Department of Industrial and Manufacturing Engineering, North Dakota State University (2014-2015).
13. *Committee Member*, Graduate Student Admissions Committee, Department of Industrial and Manufacturing Engineering, North Dakota State University (2014-2015).
14. *Committee Member*, Tenure-track Faculty Hiring Committee, Department of Industrial and Manufacturing Engineering, North Dakota State University (2013-2014).
15. *Thesis/Dissertation Committee Chair/Member*
 - Chair, Thesis Committee, "Predictive Machine Learning Applications to Crash and Soccer Datasets", Lu Bai, MS in Industrial Engineering, Fall 2019, University of New Haven (Co-chaired with Dr. Ridvan Gedik)
 - Chair, Thesis Committee, "Benchmarking OECD Countries Sustainable Development Performance: A Goal-Specific PCA Approach", Shyam Lamichhane, MS in Industrial Engineering, Spring 2019, University of New Haven
 - Chair, Thesis Committee, "Global renewable and nonrenewable energy use impact assessment of U.S. manufacturing: An integrated cradle-to-gate LCA and DEA approach", Bahadir Ezici, MS in Industrial Engineering, Fall 2018, University of New Haven
 - Chair, Thesis Committee, "Midpoint and Endpoint Sustainability Assessment of U.S. and China Manufacturing A Comparative MRIO+RECIPE Analysis", Mustafa Saber, MS in Industrial Engineering, Fall 2018, University of New Haven

- Member, Thesis Committee, "Identifying Noise Level in Military Logistics under Anti-Access/Area Denial (A2/AD)", Rosemond Aussil, MS in Industrial Engineering, Spring, 2018, University of New Haven
- Member, Thesis Committee, "CFD Simulation and Analysis of Energy Consumption in Residential Buildings in Northeastern U.S.", Maryam Golbazi, MS in Civil Engineering, Summer 2017, University of New Haven
- Chair, Thesis Committee, "Multi-region Input-Output-based Carbon and Energy Footprint Analysis of U.S. Manufacturing", Kadhim Abbood, MS in Industrial Engineering, Fall 2016, University of New Haven
- Member, Thesis Committee, "Natural Gas Supply Chain Modeling by Using a Hybrid Simulation Approach", Zaid Kbah, MS in Engineering Operations Management, Fall 2016, University of New Haven
- Member, Dissertation Committee, "Domain ontology based detection approach to identify effect types of security requirements upon functional requirements", Bilal Ibrahim Al-Ahmad, Spring 2015, Department of Computer Science, North Dakota State University
- Member, Thesis Committee, "Dynamic Pricing in Supply Chains: Bringing the Perishable Approach to Dynamic Car Market", Prateek Triphathi, Fall 2014, Department of Industrial and Manufacturing Engineering, North Dakota State University

PROFESSIONAL SERVICE

1. Track Chair

- Sustainable Development Track, Institute of Industrial and Systems Engineers Virtual Conference and Expo, November 1-3, 2020
- Manufacturing Sustainability, 25th International Conference on Production Research 2019, August 9-14, 2019, Chicago, IL
- Sustainable Development Track, IISE Annual Conference and Expo, Orlando, FL, May 19-22, 2018
- Social, Economic, and Environmental Sustainability Track, IISE Annual Conference and Expo, Pittsburgh, PA, May 20-23, 2017

2. Session Chair

- "Sustainable Development: SDG 2 No Hunger", Institute of Industrial and Systems Engineers Virtual Conference and Expo, November 1-3, 2020
- Methodological Advances in Sustainability Research, Decision Science Institute's 50th Meeting, November 23-25, 2019, New Orleans, LA
- Sustainable Energy, 30th POMS Annual Conference, May 2-6, 2019, Washington DC
- Sustainability, CSR, and Humanitarian Operations: Environmental Performance, 49th meeting of Decision Science Institute, Chicago IL, November 17-19, 2018.
- Sustainability and Corporate Social Responsibility: *Environmental Management*, 48th Annual Meeting of Decision Sciences Institute, Washington DC, November 19, 2017.
- Social, Economic, and Environmental Sustainability Track, IISE Annual Conference and Expo, Pittsburgh, PA, May 20-23, 2017
- "Green businesses", Social, Environmental and Sustainability track, IISE Annual Conference and Expo, Anaheim, CA, May 21-24, 2016
- "Decision Making for Holistic Sustainability Assessment", INFORMS Annual Meeting, San Francisco, CA, November 9-12, 2014 (*Invited Session, Organized by Dr. Egilmez*).
- "Stochastic Supply Planning", IIE Annual Conference and Expo, Montreal, QC, CANADA, May 31-June 2, 2014.
- "Sustainability and Environmental Operations", INFORMS Annual Meeting, Minneapolis, MN, USA, October 6-9, 2013.
- "Production Planning and Scheduling", IIE Annual Conference and Expo, Orlando FL, USA, May 19-23, 2012.

- “Production Planning and Scheduling”, 23rd Annual POMS Conference, Chicago IL, USA, April 20-23, 2012.
3. **Technical Program Committee Member at Regional, National, and Global Conferences**
 - 9th IFAC/IFIP/IFORS/IISE/INFORMS Conference Manufacturing Modelling, Management and Control MIM 2019
 - SEES 2018 - International Conference on Sustainable Energy and Environment Sensing 2-3 April 2018, Cambridge, United Kingdom <http://sees-conference.org/index.php/committee>
 - The 2016 International Conference on Innovative Material Science and Technology (IMST2016), 19-August 19-21, 2016, Shenzhen, China <http://www.imst2016.org/?op=committee>
 - 2012 International Conference on Low-carbon Transportation and Logistics, Green Buildings, October 12-13, 2012, Beijing, China
 4. **Responsibilities in Statewide or Nationwide Professional Organizations**
 - Committee Member, Workforce Committee, ManufactureCT, CT, Fall, 2020 - Present
 - Committee Member, Government Affairs Committee, ManufactureCT, CT, Fall, 2020 - Present
 - Young Professionals Chair, Institute of Industrial and Systems Engineers, Regional Chapter, CT 2015-2018
 5. **Workshop Organization**
 - Research Workshop on R&D and Investment Opportunities in Eastern Turkey with Scholars from Firat University, Turkey, August 1-12, 2011, Ohio University, Athens, OH USA
 - Graduate Student Research Workshop, Industrial and Systems Engineering, Spring 2012, Ohio University, Athens, OH USA
 6. **Editorial Board Membership**
 - Sustainability (ISSN 2071-1050)
 - Forecasting (MDPI)
 - Applied Computer Science (ISSN 1895-3735)
 7. **Peer-reviewed Journal/Book Editorship**
 - Sustainability, Subject Editor (Fall 2018 - Present)
 - Agronomy, Journal, Special Issue Guest Editor, Special Issue Title: Sustainable Agriculture and Water Footprint , Spring 2018 [[Link](#)]
 - Agricultural Value Chain, Edited Book, Guest Editor, Spring 2018 [[Link](#)]
 6. **Awards and Honors**
 1. IISE Engineering Economy Division, Best Teaching Award, November 3, 2020
 2. Outstanding Paper Award, 2018 Emerald Literati Awards, “From green buildings to green supply chains: An integrated input-output life cycle assessment and optimization framework for carbon footprint reduction policy making”, Management of Environmental Quality: An International Journal, Vol. 28 Issue: 4, pp.532-548, <https://doi.org/10.1108/MEQ-12-2015-0211>, June, 2018.
 3. Outstanding Service Award in 2018 IISE Annual Conference and Expo as Track Chair, Sustainability Track, Institute of Industrial and Systems Engineers (IISE), May 2018
 4. Outstanding Service Award in 2018 IISE Annual Conference and Expo as Track Chair, Sustainability Track, Institute of Industrial and Systems Engineers (IISE), May 2017
 5. Faculty Travel Grant, Industrial and Manufacturing Engineering Dept. NDSU, Spring, 2014, 2015
 6. Excellence in Peer Review Award, 2014, Computers and Industrial Engineering Journal, Elsevier
 7. Alpha Pi Mu Industrial Engineering Honor Society (2010, Ohio University Chapter)
 8. Graduate Student Travel Grant, Spring, 2011, IIE Annual Conference and Expo, Orlando, FL
 9. Graduate Student Scholarship, Ohio University, Fall 2007 - Fall, 2012
 10. Outstanding Service Award, Intramural Sports, Ohio University, Spring, 2011
 7. **Certifications**
 1. Certified Associate Project Manager (CAPM), Project Management Institute, Feb. 2020- Feb. 2025
 2. SafeZone, Self-Guided Foundational Safe Zone Training, Safe Zone Project, Spring, 2019 (Online)
 3. Simio Level 2 - Teaching Certification, Simio LLC, Fall, 2017, Sewickley, PA
 4. Applied Analytics and Text Analytics Using SAS Enterprise Miner, SAS Inc., Spring 2017

5. Foundations of Online Teaching & Learning, University of New Haven, Fall 2015
8. **Professional Memberships**
 1. Decision Sciences Institute (DSI)
 2. Institute of Industrial and Systems Engineers (IISE)
 3. Council on Undergraduate Research (CUR)
9. **Reviewer**
 - **Journal (33)**
Applied Energy, Elsevier (SCI-Expanded); Accident Analysis and Prevention, Elsevier; Building and Environment, Elsevier (SCI); Buildings - An Open Access Journal; Computers and Industrial Engineering, Elsevier (SCI); Computers and Operations Research, Elsevier; Ecological Indicators, Elsevier (SCI); Environmental Science and Technology; Environment, Development and Sustainability; Expert Systems with Applications, Elsevier; Food Safety, Elsevier; Injury Prevention, Elsevier; International Journal of Information Technology & Decision Making; International Journal of Production Research, Taylor & Francis (SCI); International Journal of Operations Research; International Journal of Project Organization and Management; International Journal of Services and Operations Management; International Journal of Meta-heuristics; Industrial Management and Data Systems, Emeralds; IEEE Transactions on Smart Grid; Journal of Algorithms and Computational Technology; Journal of Cleaner Production, Elsevier (SCI Expanded); Journal of Industrial Ecology, Springer; Journal of Manufacturing Systems, Elsevier (SCI-Expanded); Journal of the Operational Research Society; Management of Environmental Quality; Neural Computing and Applications, Springer; Production Planning and Control, Taylor & Francis; Simulation: Transactions of the Society for Modeling and Simulation International; Socio-Economic Planning Sciences, Elsevier; Social Sciences - An Open Access Journal; Sustainability - An Open Access Journal; Sustainable Production and Consumption; Transportation Research, Part A, Elsevier; Transportation Research, Part D, Elsevier; Water Resources and Industry, Elsevier
 - **Grant (4)**
National Science Foundation, United States Department of Agriculture, Netherlands Organization for Scientific Research, The Minister of Education and Science of the Republic of Kazakhstan
 - **Annual Conference (4)**
 1. American Society for Engineering Education, Annual Conference and Expo (2014-Present)
 2. Institute of Industrial Engineers Annual Conference and Expo (2012-Present)
 3. Decision Science Institute Annual Conference (2014-Present)
 4. Transportation Research Board, Annual Meeting (2013-2016)

REFERENCES

- Can be provided upon request.