

Chien-Chung (Edward) Huang

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Education

2008-2011	Georgia Institute of Technology, GA Ph.D. Industrial and Systems Engineering Major: Supply Chain Engineering Minor: Operations Management
2005-2008	Georgia Institute of Technology, GA M.S. Industrial Engineering
2001-2003	National Tsing Hua University, Taiwan M.S. Department of Industrial Engineering and Engineering Management
1997-2001	National Tsing Hua University, Taiwan B.S. Department of Industrial Engineering and Engineering Management

Work Experience

2012 -	Assistant Professor of Systems Engineering & Operations Research, Volgenau School of Engineering, George Mason University
2014	Visiting Professor of School of Mechanical and Aerospace Engineering, Nanyang Technological University, Singapore
2011 - 2012	Senior Systems Engineer, Innovative Scheduling, Gainesville, FL
2006 - 2011	Research Assistant, W.M. Keck Laboratory, Industrial and Systems Engineering Department, Georgia Institute of Technology, GA.
2003	Assistant Engineer, Industrial Technology Research Institute, Taiwan.

Honors and Awards

2017	Teacher of Distinction, GMU
2014	MHI-CICMHE Research Start-Up Award
2011	Selected to INFORMS Future Academician Colloquium
2003	Acer Dragon Thesis Award
1999	First Price in Taiwan IE programming Competition

Research

Publications

A. Journals

- A1 E. Huang*, and K. Wu, "Job Scheduling at Cascading Machines," accepted, *IEEE Transaction on Automation Science Engineering*.
- A2 L. Y. Hsieh, E. Huang, C.-H. Chen, "Equipment Utilization Enhancement in Photolithography Area through a Dynamic System Control Using Multi-fidelity Simulation Optimization with Big Data Technique," *IEEE Transactions on Semiconductor Manufacturing*, 30(2), 166-175, 2017.
- A3 E. Huang*, P. Mital, M. Goetschalckx, and Kan Wu, "Optimal Assignment of Airport Baggage Unloading Zones to Outgoing Flights," *Transportation Research Part E*, 94, pp. 110-122, 2016, Impact factor 2.279.
- A4 J. Xu, E. Huang, L. Hsieh, L. H. Lee, Q.-S. Jia, and C.-H. Chen, "Simulation optimization in the era of Industrial 4.0 and the Industrial Internet," 10(4), 310-320, *Journal of Simulation*, 2016. Impact factor 0.383.
- A5 L. Y. Hsieh, E. Huang, S. Zhang, K.-H. Chang, and C.-H. Chen, "Application of Multi-Fidelity Simulation Modeling to Integrated Circuit Packaging," *International Journal of Simulation and Process Modelling*, 28(2), 195-208, Spring 2016.
- A6 E. Huang, S. Zhang*, L. H. Lee, E. P. Chew, and C.-H. Chen, "Improving Analytic Hierarchy Process Expert Allocation Using Optimal Computing Budget Allocation," *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, 46(8), 1140-1147, 2016.
- A7 J. Xu, S. Zhang*, E. Huang, C.-H. Chen, L. H. Lee, and N. Celik, "MO2TOS: multi-fidelity optimization with ordinal transformation and optimal sampling," *Asia-Pacific Journal of Operational Research*, Vol. 33, No. 3, 2016.
- A8 P. Mital, M. Goetschalckx, and E. Huang*, "Robust Material Handling System Design with Standard Deviation, Variance and Downside Risk as Risk Measures," *International Journal of Production Economics*, Vol. 170, Part C, pp. 815-824, 2015. Impact factor 2.54.
- A9 J. Xu*, E. Huang, C.-H. Chen and L. H. Lee, "Simulation Optimization: a Review and Exploration in the New Era of Cloud Computing and Big Data," *Asia-Pacific Journal of Operational Research*, Vol. 32, No. 3, 2015. Impact factor 0.22.
- A10 G. Kim, K. Wu and E. Huang*, "Optimal Inventory Control in a Multi-Period Newsvendor Problem with Non-Stationary Demand," *Advanced Engineering Informatics*, Vol. 29, No. 1, pp. 139-145, 2015. Impact factor 2.068.
- A11 E. Huang*, and M. Goetschalckx, "Strategic robust supply chain design based on the Pareto optimal tradeoff between efficiency and risk," *European Journal of Operations Research*, Vol. 237, No. 2, pp. 508-518, 2014. Impact factor 1.843.
- A12 O. Batarseh*, E. Huang, and L. McGinnis, "Capturing simulation tool and application domain knowledge for automating simulation model creation," *Journal of Simulation*, Vol. 9, No. 1, pp. 1-15, 2014. Impact factor 0.383.
- A13 M. Goetschalckx*, E. Huang, and M. Pratik, "Robust Global Supply Network Design," *Information Knowledge Systems Management*, IOS Press, Vol. 11, pp.119-130, 2012. Impact factor 2.639.
- A14 L. McGinnis*, E. Huang, K. Kwon, and V. Ustun, "Ontologies and Simulation: A Practical Approach," *Journal of Simulation*, Vol. 5, No. 4, pp. 190-201, 2011. Impact factor 0.383.

- A15 J. T. Lin*, T.-L. Chen, and E. Huang, "A Hierarchy Planning Model for TFT-LCD Production Chain," *International Journal of Electronic Business Management*, Vol. 2, No. 1, pp. 59-68, 2004.
- A16 E. Huang, T.-L. Chen and G.-R. Liang*, "Decision Support System for Production Line," *Journal of the Mechatronic Industry*, Vol. 206, No. 5, pp.228-251, 2000. [in Chinese]
- A17 E. Huang*, L. McGinnis, and S. Mitchell, "Using Petri Nets to Verify Control Models Specified as Activity Diagrams," *Systems Engineering*, under review.
- A18 K. Wu*, M. Wang, S. Srivathsan, and E. Huang, "Job Dispatch Control for Production Lines with Overlapped Time Window Constraints," *IEEE Transactions on Semiconductor Manufacturing*, under review.
- A19 J. T. Lin*, C.-C. Chiu, E. Huang, and H.-M. Chen, "An effective multi-fidelity model approach for simultaneous scheduling of machines and AGVs in FMS," under review.
- A20 H. Zhao, E. Huang, and K. Wu*, "Clinical Trial Supply Chain Design Based on the Pareto-Optimal Time-Cost Tradeoff," under review.
- A21 Y. Peng*, E. Huang, J. Xu, C.-H. Chen. "A Coordinate Optimization Approach for Concurrent Engineering." *IEEE Transactions on Automatic Control*, under review.

B. Book Chapters

- B1 Goetschalckx M., and E. Huang, "Robust Supply Chain Design," in *Tennenbaum Institute Series: Manufacturing in a Global Enterprise*, IOS Press, Volume 4, pp. 119-130, 2012.
- B2 Goetschalckx M., E. Huang, and P. Mital, "Robust Material Handling System Design Based On The Risk Versus Cost Tradeoff," in *Progress in Material Handling Research: 2012*, Material Handling Industry of America Press, pp. 186-200, 2012.
- B3 Goetschalckx M., and E. Huang, "Strategic design of a robust supply chain," in *Progress in Material Handling Research: 2010*, Material Handling Industry of America Press, pp. 143-160, 2010.

C. Refereed Conference Proceedings

- C1 Y. Peng, E. Huang, J. Xu, C.-H. Chen, "Concurrent Engineering: An Optimization Approach for Team Coordination Through Information Sharing," *Conference: 13th Conference on Automation Science and Engineering*, 2017.
- C2 E. Huang, A. K. Zaidi, and K. B. Laskey, "Inference Enterprise Multi-Modeling for Insider Threat Detection Systems," *15th Annual Conference on Systems Engineering Research*, 2017.
- C3 S. Yazdani, Y.-T. Lin, W. Cai, E. Huang, "A Game Theory Perspective on Requirement-Based Engineering Design," *15th Annual Conference on Systems Engineering Research*, 2017.
- C4 C.-C. Chiu, S. Zhang, E. Huang, J. T. Lin and L. Zhen, "Improving the Efficiency of Evolutionary Algorithms for Large-Scale Optimization with Multi-Fidelity Models", *Winter Simulation Conference*, 2016.
- C5 S. Zhang, J. Xu, E. Huang and C.-H. Chen, "A New Optimal Sampling Rule for Multi-Fidelity Optimization via Ordinal Transformation," *12th Conference on Automation Science and Engineering (CASE), ISAM*, 2016.
- C6 S. Zhang, J. Xu, E. Huang, C.-H. Chen, and S. Gao, "Improving Ordinal Transformation Through Optimal Combination of Multi-model Predictions," *2016 IEEE International Conference on Industrial Technology*, pp. 1545-1549, 2016.
- C7 E. Huang, J. Xu, S. Zhang, and C.-H. Chen, "Multi-Fidelity Model Integration for Engineering Design," *Procedia Computer Science*, 44, pp. 336-344, 2015.

- C8 J. T. Lin, E. Huang, P.-H. Shih, and C.-C. Chiu, "Airport Baggage Handling System Simulation Modeling Using SysML," in Proceedings of the 2015 International Conference on Industrial Engineering and Operations Management, Dubai, United Arab Emirates, 2015
- C9 D. Flanigan, and E. Huang, "Border security system resiliency evaluation framework," The Council of Engineering Systems Universities, 2014.
- C10 J. Xu, S. Zang, E. Huang, C.-H. Chen, L. H. Lee, and N. Celik, "An Ordinal Transformation Framework for Multi-Fidelity Simulation Optimization," 2014 IEEE International Conference on Automation Science and Engineering, pp. 385-390, 2014.
- C11 J. Xu, S. Zang, E. Huang, C.-H. Chen, L. H. Lee, and N. Celik, "Efficient multi-fidelity simulation optimization," Winter Simulation Conference, pp. 3940-3951, 2014. Acceptance rate: 64%.
- C12 M. Goetschalckx, P. Mital and E. Huang, "A Framework For the Robust Design of Unit Load Storage Systems," In Proceedings of the 2014 International Material Handling Research Colloquium, 2014.
- C13 M. Goetschalckx, E. Huang, and P. Mital, "Trading off Supply Chain Risk and Efficiency through Supply Chain Design," 11th Annual Conference on Systems Engineering Research, 2013.
- C14 M. Goetschalckx, E. Huang, and P. Mital, "Robust Material Handling System Design Based On The Risk Versus Cost Tradeoff," In Proceedings of the 2012 International Material Handling Research Colloquium, 2012.
- C15 M. Goetschalckx, and E. Huang, "Two-stage supply chain design considering the efficiency and risk," Institute of Industrial Engineers Annual Conference, 2011
- C16 M. Goetschalckx, and E. Huang. "Strategic design of a robust supply chain," In Proceedings of the 2010 International Material Handling Research Colloquium, 2010.
- C17 E. Huang, K. Kwon, and L. F. McGinnis, "Toward on-demand wafer fab simulation using formal structure & behavior models," Winter Simulation Conference, 2341-2349, 2008. Acceptance rate 82%.
- C18 E. Huang, R. Ramamurthy, and L. F. McGinnis, "System and simulation modeling using SysML," Winter Simulation Conference, 796-803, 2007. Acceptance rate 62%.
- C19 L. F. McGinnis, E. Huang, and K. Wu, "Systems engineering and design of high-tech factories," Winter Simulation Conference, 1880-1886, 2006. Acceptance rate 70%.
- C20 J. T. Lin, T.-L. Chen, C.-C. Huang and Y.-Y. Chen, "A Hierarchy Planning Framework for TFT-LCD Production Chain," Industry Commerce and Logistic Management Conference, 2003.
- C21 J. T. Lin, T.-L. Chen, C.-C. Huang and W.-D. Jheng, "Constraint-Based Simulation Algorithm for Multiply Constraints Production Chain," Chinese Institute of Industrial Engineering Association, 2003

D. Other Publications (Non-Refereed Conferences, Technical Reports, etc.)

- D1 Huang E., and A. Zaidi, "Designing/Building an Electric Power Plant Using MBSE," Technical Report, Pohang University of Science and Technology, Department of Energy, September 2014.
- D2 Huang, E., M. Goetschalckx and P. Mital, "Supply Chain Design Considering Downside Risk," *Proceedings of the Institute of Industrial Engineers Asian Conference*, 2013.
- D3 Huang, E., "Discrete Event System Modeling Using SysML and Model Transformation," *Ph.D. Thesis*, Department of Industrial and Systems Engineering, Georgia Institute of Technology, October 2011.

- D4 Huang, E., “Multi-Site Planning and Scheduling for TFT-LCD Manufacturing Industry,” *Master Thesis*, Department of Industrial Engineering and Engineering Management. National Tsing Hua University, Taiwan, June 2003.

Funded Research Projects: (Total: \$2,708,565. approx. \$ 0.93 M, Edward)

1. “Inference Enterprise Multi-Modeling”, IARPA, Co-PI, with Kathryn Laskey and Abbas Zaidi, \$1,884,635, 3/21/2016-3/20/19.
2. “Improving Search Efficiency in Engineering Design by Integrating Multiple Models at Different Fidelities”, NSF, PI, with J. Xu, and C.-H. Chen, \$ 459,066, 5/1/15-4/30/18.
3. “A New Scalable Paradigm for Optimal Resource Allocation in Dynamic Data Systems via Multi-Scale and Multi-Fidelity Simulation and Optimization,” NSF/AFOSR, Co-PI, with J. Xu, C. H. Chen and K. C. Chang, \$249,364, 06/01/15-05/31/17.
4. “Robust Material Handling System Design,” Material Handling Education/College Industry Council on Material Handling Education, Research Start-Up Grants, \$11,000, 2014.
5. “Designing/Building an Electric Power Plant Using MBSE,” Pohang University of Science and Technology, Co-PI, with A. Sofer and A. Zaidi, \$100,000, 01/01/14 – 08/31/14.
6. “Foundation of System Behavior Modeling,” Research Foundation, George Mason University, PI, \$4,500, 07/01/14 - 10/01/14.

International Collaborative Funded Research Projects:

1. “Planning Problem of Controlling a Baggage Handling System at International Airport Terminal,” Advanced Control & Systems Inc., Co-PI, with J. T. Lin (National Tsing-Hua University), approximate NT \$1,000,000, 09/01/13 – 02/28/15.
2. “Productivity Enhancement at SSMC - CMP and Furnaces Dispatching Algorithm Development,” Systems on Silicon Manufacturing Co. Ltd, Collaborator, with Kan Wu (Nanyang Technological University), S\$126,800, 09/01/13 – 08/31/14.
3. “Reducing Excess Production of the Active Pharmaceutical Ingredient during Early-Phase Development,” GlaxoSmithKline, Collaborator, with Kan Wu (Nanyang Technological University), S\$593,160, 07/01/12-12/31/18.

Invited Presentations

A. Invited Seminars

2017

- May, Department of Industrial Engineering and Engineering Management, National Tsing Hua University, Taiwan

2016

- May, Faculty of Economics, Fukuoka University, Japan.
- May, Department of Industrial Engineering and Engineering Management, National Tsing Hua University, Taiwan
- May, IDI

2014

- December, Northern Virginia Electric Cooperative
- October, Langley Center, NASA

- August, Visiting Professor of School of Mechanical and Aerospace Engineering, Nanyang Technological University, Singapore

2013

- August, Department of Industrial Engineering and Engineering Management, National Tsing Hua University, Taiwan
- April, NOVEC

B. Invited Presentations at Conferences

- B1 “Inference Enterprise Multi-Modeling for Insider Threat Detection Systems,” 15th Annual Conference on Systems Engineering Research, Los Angeles, CA, 2017.
- B2 “A Game Theory Perspective on Requirement-Based Engineering Design,” 15th Annual Conference on Systems Engineering Research, Los Angeles, CA, 2017.
- B3 “Continuing Education Opportunities at George Mason”, MBSE & UPDM Workshop, VA, 2016.
- B4 “Employing MBSE for the Design and Construction of a Power Plant - A Case Study”, 2016 SEDC Conference, D.C., 2016.
- B5 “Multi-Formalism Cyber Security Applications”, 2016 SEDC Conference, D.C., 2016.
- B6 “Optimal Assignment of Airport Baggage Unloading Zones to Outgoing Flights”, with P. Mital and M. Goetschalckx, 2015 INFORMS Annual Meeting, Philadelphia 2015.
- B7 “Multi-fidelity Optimization with Ordinal Transformation and Optimal Sampling”, with J. Xu, S. Zhang, C.-H. Chen and L. H. Lee, INFORMS Computing Society Conference, Richmond, Virginia, 2015.
- B8 “Robust Design of Unit Load Storage Systems”, with P. Mital and M. Goetschalckx, INFORMS, San Francisco CA, 2014
- B9 “Unit Load Storage System Design”, with P. Mital and M. Goetschalckx, 2014 INFORMS Annual Meeting, San Francisco CA, 2014
- B10 “An Ordinal Transformation Framework for Multi-Fidelity Simulation Optimization,” ”, with J. Xu, S. Zhang, C.-H. Chen and L. H. Lee, 2014 IEEE Conference on Automation Science and Engineering, Taipei, Taiwan, 2014.
- B11 “Border security system resiliency evaluation framework,” with A. Flanigan, The Council of Engineering Systems Universities, Hoboken, New Jersey, 2014.
- B12 “A Framework For the Robust Design of Unit Load Storage Systems,” with P. Mital and M. Goetschalckx, 2014 International Material Handling Research Colloquium, Cincinnati, Ohio, 2014
- B13 “Trading off Supply Chain Risk and Efficiency through Supply Chain Design,” with P. Mital and M. Goetschalckx, Conference on Systems Engineering Research, Atlanta GA, 2013.
- B14 “Supply Chain Design Considering Downside Risk”, with P. Mital and M. Goetschalckx, IIE Asia Conference, Taipei, Taiwan, 2013.
- B15 “Robust Electrical Distribution Network Design under Uncertainty,” with P. Mital and M. Goetschalckx, 2013 INFORMS Annual Meeting, Minneapolis, Minnesota, 2013.
- B16 “Robust Material Handling System Design Based On the Risk Versus Cost Tradeoff,” with P. Mital and M. Goetschalckx, International Material Handling Research Colloquium, 2012.
- B17 “Strategic supply chain design considering various risk measures”, with M. Goetschalckx, INFORMS, Charlotte NC, 2011.

- B18 “Two-stage supply chain design considering the efficiency and risk”, with M. Goetschalckx, Institute of Industrial Engineers Annual Conference, 2011
- B19 “Robust strategic supply chain design,” with M. Goetschalckx, 2010 INFORMS Annual Meeting, Austin TX, 2010.
- B20 “Toward on-demand wafer fab simulation using formal structure & behavior models,” with K. Kwon and L. F. McGinnis, Winter Simulation Conference, Miami, 2008.
- B21 “System and simulation modeling using SysML,” with R. Ramamurthy, and L. F. McGinnis, Winter Simulation Conference, Washington D. C, 2007.
- B22 “System and simulation modeling using SysML,” with R. Ramamurthy, and L. F. McGinnis, Industrial Engineering Research Conference, Nashville TN, 2007.

Professional Society Service

Committee

- Program Committee, International Conference on Complex Information Systems (COMPLEXIS), 2016-2017.
- Program Committee, International Conference on Semantic Technology in Intelligence, Defense and Security, 2016-2017.
- Program Committee, IEEE International Conference on Complex Systems Engineering, 2015.
- Technical Committee, Winter Simulation Conference Big Data Simulation Track, 2015.
- Technical Committee, Modeling and Analysis of Semiconductor Manufacturing (MASM), 2015.
- Lifecycle Modeling Language (LML) Steering Committee, INCOSE, 2013-2015.
- Session Chair, INFORMS Annual Meeting, 2014.
- Session Chair, 11th Annual Conference on Systems Engineering Research, 2013.
- Session Chair, 2010 INFORMS Annual Meeting, 2010.

Reviewer

- Associate Editor, Asia Pacific Journal of Operational Research, 2017.
- Reviewer, Systems Engineering, 2017.
- Reviewer, Journal of Defense Modeling and Simulation, 2016.
- Reviewer, Industrial Management & Data Systems, 2016.
- Reviewer, Computers & Industrial Engineering, 2016.
- Reviewer, Simulation Modelling Practice and Theory, 2016.
- Reviewer, European Journal of Operational Research, 2015.
- Reviewer, IEEE Transactions on Control Systems Technology, 2015.
- Reviewer, Applied Mathematical Modelling, 2015.
- Reviewer, Optimization Methods and Software, 2015.
- Reviewer, Asia-Pacific Journal of Operational Research, 2014-2015, 2017.
- Reviewer, IEEE Transactions on Systems, Man and Cybernetics: Systems, 2015.
- Reviewer, IEEE Transactions on Reliability, 2015.

- Reviewer, IEEE Transactions on Automation Science and Engineering, 2013-2017.
- Reviewer, International Journal of Production Economics, 2014-2015.
- Reviewer, Transportation Research part E, 2014-2015.
- Reviewer, Advanced Engineering Informatics, 2013-2014.
- Reviewer, Journal of Simulation, 2013.
- Reviewer, Scientia Iranica, 2015.
- Reviewer, Winter Simulation Conference, 2015
- Reviewer, International Conference on Modeling and Analysis of Semiconductor Manufacturing (MASM), 2015
- Reviewer, Semantic Technology for Intelligence, Defense, and Security, 2015.
- Reviewer, IEEE International Conference on Automation Science and Engineering, 2016-2017.
- Reviewer, International Conference on Industrial Engineering and Operations Management, 2014.
- Reviewer, Conference on Systems Engineering Research (CSER), 2013.
- Reviewer, International Conference on Complex Information Systems, 2016.
- Reviewer, NSF CMMI Systems Science Program, 2015, 2017.

Professional Affiliations

- Member, International Council on Systems Engineering (INCOSE)
- Member, Institute for Operations Research and Management Science (INFORMS)

University Service

College/School Service

- Judge, Mason's Annual 3MT™ Competition, 2017
- Reviewer, George Mason University Summer Fund, 2014

Department Service

- Co-Chair, Colloquia Committee, 2012-2016
- Member, Department Chair Search Committee, 2016-2017
- Member, Graduate Curriculum Committee Systems Engineering Focus, 2014-2017
- Chair, Graduate Curriculum Committee Systems Engineering Focus, 2017-2018
- Member, Program Marketing Committee, 2014-2018
- Member, Faculty Search Committee, 2015-2016
- Member, Spring Preview, 2017
- Member, Fall Premiere Open House, 2014

Teaching / Supervision

Post Doctoral Fellow Supervised

- Liam Y Hsieh, 2015-current
- Yijie Peng, 2016-2017
- G. Kim, 2013-14, currently with Nanyang Technological University, Singapore.
- Young D Shin, 2013-2015, currently with Samsung Thales.

Ph.D. Student Supervision

As Dissertation Advisor

1. Soodabeth Yazdani, GMU, in progress.
2. Robert Aarhus, GMU, in progress.

As Member of Other Ph.D. Dissertation Committees

1. Yun Guo, CS Dept., GMU, in progress.
2. Mohan Krishnamoorthy, CS Dept., GMU, in progress.
3. Xing Wang, CS Dept., GMU, in progress.
4. Rohan Khade, CS Dept., GMU, in progress.
5. Omar Nachawati, CS Dept., GMU, in progress.
6. Hui Zhou, School of Mechanical and Aerospace Engineering, Nanyang University, Singapore, in progress.
7. John Situ, SEOR Dept., GMU, in progress.
8. Fernando Boccanera, IT Dept., GMU, in progress.
9. Chun-Chih Chiu, IEEM Dept., National Tsing Hua University, in progress.
10. Wee Wee Sim, AIT Dept., GMU, 2015.
11. Tim Sprock, ISYE Dept., Georgia Institute of Technology, 2015.
12. George Thiers, ISYE Dept., Georgia Institute of Technology, 2013.

As Member of Other Masters Thesis Committees

1. Irene Liou, IEEM Dept., National Tsing Hua University, 2017.
2. Chun-Hui Chao, IEEM Dept., National Tsing Hua University, 2017.
3. Yan-Cheng Liu, IEEM Dept., National Tsing Hua University, 2014.
4. Ya-Ning Hsu, IEEM Dept., National Tsing Hua University, 2014.
5. I-Hsin Weng, IEEM Dept., National Tsing Hua University, 2013.
6. Mei-Jen Lu, IEEM Dept., National Tsing Hua University, 2013.

Student Evaluation for Teaching at George Mason University (2012-Present)

Semester Year	Courses/Titles	Students Enrolled	Rating of Instructor (max 5.0)+	Rating of Course (max 5.0)+
Spring 2017	SYST 618: Model-based Systems Engineering (Online)	11	4.90	4.70

Spring 2017	SYST 618: Model-based Systems Engineering	6	4.80	4.80
Fall 2016	OR 441*: Deterministic Operations Research	69	4.96	4.78
Spring 2016	SYST 618: Model-based Systems Engineering (Online)	5	5.00	5.00
Spring 2016	SYST 618: Model-based Systems Engineering	13	5.00	4.56
Spring 2016	OR 441*: Deterministic Operations Research	39	4.95	4.81
Fall 2015	SYST 618: Model-based Systems Engineering (Online)	6	5.00	4.80
Spring 2015	SYST 618: Model-based Systems Engineering	15	5.00	4.80
Fall 2014	OR 441*: Deterministic Operations Research	56	4.87	4.73
Spring 2014	SYST 659: Model-based Systems Engineering	6	5.00	4.83
Fall 2013	OR 441*: Deterministic Operations Research	50	4.92	4.87
Spring 2013	OR 541*: Deterministic Models	14	4.54	4.31
Fall 2012	OR 541*: Deterministic Models	16	4.53	4.27

* The courses with this mark are core courses; all students in the programs are required to take them.

+ Evaluation: Excellent = 5.0
 Good = 4.0
 Satisfactory = 3.0
 Marginal = 2.0
 Poor = 1.0

Student Evaluation for Teaching at Georgia Institute of Technology (2010)

Semester Year	Courses/Titles	Students Enrolled	Effective Teacher (max 5.0)+	Encouraged students (max 5.0)+	Explained material clearly (max 5.0)+
2010 Summer	ISyE 3025*: Engineering Economy	142	4.1	4.3	4.0