

R. John Milne

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Summary

Profile

During my 26-year career at IBM, I developed and applied operations research methods to complex decision problems in supply chain management, and held job titles that included *Master Inventor* and *Senior Engineer*. Since leaving IBM in 2010, it has been my pleasure to teach courses at Clarkson University in operations research, operations and supply chain management, and a third course that presently involves students developing patentable inventions. My research has focused on extending operations research methods to address problems in supply chain management, planning, and scheduling. I am among the world's experts on methods for boarding passengers onto airplanes.

I was the inaugural recipient of the David D. Reh School of Business *Faculty Teaching Excellence Award* in honor of Dr. Robert John McGill and Dr. Nye Smith, and later received the Reh School's *Faculty Research Excellence Award*. The world's leading professional society for operations research and analytics professionals, INFORMS, honored me with the *Franz Edelman Finalist Award for Achievement in Advanced Analytics, Operations Research, and Management Science*, the *Daniel H. Wagner Prize for Excellence in Operations Research Practice*, and elected me a *Fellow* "for exceptional practice of operations research, extensive service to INFORMS, and outstanding research in planning, scheduling, and supply chain management."

Education

- Ph.D., Decision Sciences & Engineering Systems, Rensselaer Polytechnic Institute 1995
- M. Eng., Operations Research and Industrial Engineering, Cornell University 1984
- B.S., Operations Research and Industrial Engineering, Cornell University 1983

Employment History

- Neil '64 and Karen Bonke Associate Professor in Engineering Management, Clarkson University David D. School of Business, Potsdam, NY Feb 2016-present
- Neil '64 and Karen Bonke Assistant Professor in Engineering Management, Clarkson University School of Business, Potsdam, NY August 2010-Jan 2016
- Master Inventor & Senior Engineer, IBM Enterprise Transformation & I.T., Test Software Engineering, Essex Junction, Vermont Dec 2008-Sept 2010
 - Analysis, support, and design of semiconductor failure diagnostics software
 - Member of IBM Burlington Technical Vitality Council
- Senior Technical Staff Member, IBM Research Division Sept 2008-Nov 2008

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- Temporary assignment supporting the commercialization of advanced analytics for semiconductor applications in data mining and data monitoring
- Senior Technical Staff Member, IBM, Essex Junction, Vermont 2004-Aug 2008
 - Technical leader on a team that conducted research and development related to client problems in global supply chain management and developed a suite of integrated software that optimizes decisions associated with the microelectronics industry complexities such as: tens of thousands of part numbers, alternative production and distribution locations, alternative bills of materials, alternative capacities, binning, lot sizes, and product substitutions. Developed new methods to optimize decision making in the data storage industry; modeled complexities such as: rework, disk downgrade, assembly-dependent substitutions, and demand perishability. This software has been used for enterprise and site planning by the IBM Microelectronics Division (multibillion dollars in annual revenue), Hitachi Global Storage Devices, Analog Devices Inc., and Macronix Ltd.
 - Co-chair of Master Inventor committee on invention review board best practices (2007-2009)
 - Co-chair of a division-wide Software Invention Review Board 2007-2008
 - Member of a division-wide Software Invention Review Board 2005-2008
 - Leader of a team evaluating people for promotion to Senior Technical Staff Member; 80% of the team members were *Distinguished Engineers* 2006-2007
- Adjunct Associate Professor, Dartmouth College, Hanover, NH 2007
 - Taught *Introduction to Optimization Methods* during the fall trimester.
 - Median student rating for overall quality of the course was “Very Good”
- Senior Engineer, IBM Microelectronics, Essex Junction, Vermont 1994-2004
 - A technical leader and developer of a suite of software for supply chain planning.
 - Outstanding Innovation Award for the “development of innovative, leading edge supply chain solutions.”
- Ph.D. student, Rensselaer Polytechnic Institute, Troy, NY 1992-1994
 - Awarded IBM Fellowship which funded two years of full-time study
 - 4.0 grade point average while in the program
 - Dissertation: Order Release in a Probabilistic Manufacturing Environment.
 - Awarded *Del and Ruth Karger Prize* for Outstanding Doctoral Dissertation in the department of Decision Sciences and Engineering Systems.
- Adjunct faculty member, Marist College, Poughkeepsie, NY 1990-1992
 - Taught two 3-credit hour classes in *Production Operations Management*
 - Taught two 3-credit hour classes in *Materials Management / Logistics*
- Engineer, Systems Analyst, & Programmer, IBM, East Fishkill, NY 1984-1992
 - Designed and implemented algorithms, software, and integrated data bases for master production scheduling, material requirements planning, capacity planning, non-product parts planning, customer order committing, WIP prioritization, and job order release configuration for the IBM East Fishkill semiconductor fabrication and multi-layer ceramics production site. Developed models which enabled IBM to plan production associated with a statistical level of confidence of delivery, developed methods to prioritize WIP based on the objective of delivering complete sets of products, and co-designed software to reduce risk through the stratification of products across wafers and jobs.

Research

Refereed Journal Publications

1. Milne, R.J., Cotfas, L.-A., Delcea, C., Crăciun, L., and Molănescu, A.G., (2022) “Health Risks of Airplane Boarding Methods with Apron Buses When Some Passengers Disregard Safe Social Distancing,” *PlosOne* 17(8): e0271544 (DOI: 10.1371/journal.pone.0271544)
2. Salari, M., Milne, R.J., Delcea, C., and Cotfas, L.-A., (2022) “Social Distancing in Airplane Seat Assignments for Passenger Groups,” *Transportmetrica B: Transport Dynamics* 10(1):1070-1098 (DOI: 10.1080/21680566.2021.2007816)
3. Milne, R.J., Cotfas, L.A., Delcea, C., (2022) “Minimizing Health Risks as a Function of the Number of Airplane Boarding Groups,” *Transportmetrica B: Transport Dynamics* 10(1):901-922, (DOI: 10.1080/21680566.2021.1968322)
4. Delcea, C., Milne, R.J., and Cotfas, L.-A., (2022) “Evaluating Classical Airplane Boarding Methods for Passenger Health Risks during Normal Times,” *Applied Sciences* 12(7), 3235 (DOI: 10.3390/app12073235)
5. Alharbi, E.A., Abdel-Malek, L.L., Milne, R.J., and Wali, A.M., (2022) “Analytical Model for Enhancing the Adoptability of Continuous Descent Approach at Airports,” *Applied Sciences* 12(3), 1506 (DOI: 10.3390/app12031506)
6. Delcea, C., Cotfas, L.-A., Milne, R.J., Xie, N., and Mierzwiak, R., (2022) “Grey Clustering of the Variations in the Back-to-front Airplane Boarding Method Considering COVID-19 Flying Restrictions,” *Grey Systems: Theory and Application* 12(1):25-59 (DOI: 10.1108/GS-11-2020-0142)
7. Cotfas, L.-A., Milne, R.J., Delcea, C., and Ioanăș, C. (2021), “An Investigation of Social Distancing and Quantity of Luggage Impacts on the Three Groups Reverse Pyramid Boarding Method,” *Symmetry* 13, 544 (DOI: 10.3390/sym13040544)
8. Milne, R.J., Delcea, C., and Cotfas, L.-A., (2021) “Airplane Boarding Methods that Reduce Risk from COVID-19,” *Safety Science* 134, 105061 (DOI: 10.1016/j.ssci.2020.105061)
9. Delcea, C., Milne, R.J., and Cotfas, L.-A., (2020), “Determining the Number of Passengers for Each of Three Reverse Pyramid Boarding Groups with COVID-19 Flying Restrictions,” *Symmetry* 12(12), 2038 (DOI: 10.3390/sym12122038)
10. Milne, R.J., Cotfas, L.-A., Delcea, C., Crăciun, L., and Molănescu, A.G., (2020), “Adapting the Reverse Pyramid Airplane Boarding Method for Social Distancing in Times of COVID-19,” *PlosOne* 15(11): e0242131 (DOI: 10.1371/journal.pone.0242131)
11. Salari, M., Milne, R.J., Delcea, C., Kattan, L., and Cotfas, L.-A., (2020) “Social Distancing in Airplane Seat Assignments,” *Journal of Air Transport Management* 89 (DOI: 10.1016/j.jairtraman.2020.101915)
12. Milne, R.J., Delcea, C., Cotfas, L.-A., and Ioanăș, C. (2020), “Evaluation of Boarding Methods Adapted for Social Distancing when using Apron Buses,” *IEEE Access* 8:151650-151667 (DOI: 10.1109/ACCESS.2020.3015736)
13. Cotfas, L.-A., Delcea, C., Milne, R.J., Salari, M., (2020) “Evaluating Classical Airplane Boarding Methods Considering COVID-19 Flying Restrictions,” *Symmetry* 12(7), 1087 (DOI: 10.3390/sym12071087) (identified by the journal as a *Feature paper*)

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14. Milne, R.J., Cotfas, L.-A., Delcea, C., Salari, M., Crăciun, L., and Molănescu, A.G., (2020), “Airplane Boarding Method for Passenger Groups when using Apron Buses,” *IEEE Access* 8:18019-18035 (DOI: 10.1109/ACCESS.2020.2968410)
15. Delcea, C., Milne, R.J., Cotfas, L.-A., Crăciun, L., and Molănescu, A.G., (2019) “Methods for Accelerating the Airplane Boarding Process in the Presence of Apron Buses,” *IEEE Access* 7(1):134372-134387 (DOI: 10.1109/ACCESS.2019.2941532)
16. Milne, R.J., Cotfas, L.-A., Delcea, C., Salari, M., Crăciun, L., and Molănescu, A.G., (2019), “Greedy Method for Boarding a Partially Occupied Airplane Using Apron Buses,” *Symmetry* 11(10), 1221 (DOI: 10.3390/sym11101221) (identified by the journal as a *Feature paper*)
17. Milne, R.J., Delcea, C., Cotfas, L.-A., and Salari, M., (2019), “New methods for two-door airplane boarding using apron buses,” *Journal of Air Transport Management*, 80, 101705 (DOI: 10.1016/j.jairtraman.2019.101705)
18. Salari, M., Milne, R.J., and Kattan, L., (2019), “Airplane boarding optimization considering reserved seats and passengers’ carry-on bags,” *OPSEARCH*, 56(3): 806-823 (DOI: 10.1007/s12597-019-00405-z)
19. Cotfas, L.-A., Delcea, C., Milne, R.J., Salari, M., Crăciun, L., and Molănescu, A.G., (2019), “Testing New Methods for Boarding a Partially Occupied Airplane using Apron Buses,” *Symmetry*, 11(8), 1044 (DOI: 10.3390/sym11081044)
20. Delcea, C., Cotfas, L.-A., Salari, M., and Milne, R.J., (2018), “Investigating Random Seat Boarding Method without Seat Assignments with Common Boarding Practices Using an Agent-Based Modeling,” *Sustainability*, 10(12), 4623 (DOI: 10.3390/su10124623)
21. Milne, R.J., Salari, M., and Kattan, L., (2018), “Robust Optimization of Airplane Passenger Seating Assignments,” *Aerospace*, 5(3), 80 (DOI: 10.3390/aerospace5030080)
22. Milne, R.J. and Salari, M., (2016), “Optimization of assigning passengers to seats on an airplanes based on their carry-on luggage”, *Journal of Air Transport Management*, 54:104-110 (DOI: 10.1016/j.jairtraman.2016.03.022)
23. Fordyce, K., Milne, R.J., Wang, C-T., and Zisgen, H., (2015), “Modeling and Integration of Planning, Scheduling, and Equipment Configuration in Semiconductor Manufacturing: Part I. Review of Successes and Opportunities,” *International Journal of Industrial Engineering: Theory, Applications, and Practice*, 22(5):575-600
24. Fordyce, K., Milne, R.J., Wang, C-T., and Zisgen, H., (2015), “Modeling and Integration of Planning, Scheduling, and Equipment Configuration in Semiconductor Manufacturing: Part II. Fab Capability Assessment,” *International Journal of Industrial Engineering: Theory, Applications, and Practice*, 22(5):601-617
25. Milne, R.J., Mahapatra, S., and Wang, C-T., (2015), “Optimizing planned lead times for enhancing performance of MRP systems,” *International Journal of Production Economics*, 167:220-231 (DOI: 10.1016/j.ijpe.2015.05.013)
26. Milne, R.J., Denton, B.T., and (Clarkson undergraduate student) White, T., (2015) “ASP, The Art and Science of Practice: How Analytics Practitioners Can Learn from Published Patents and Protect Their Work,” *Interfaces*, 45(3):271-277 (DOI: 10.1287/inte.2014.0775) (**INFORMS President’s Pick, June 2015**)
27. Milne, R.J., Wang, C-T., Denton, B.T., and Fordyce, K., (2015) “Incorporating contractual arrangements in production planning,” *Computers & Operations Research*, 53:353-363. (DOI: 10.1016/j.cor.2014.03.023)

28. Li, Q. and Milne, R.J., (2014), “A production scheduling problem with sequence-dependent changeover costs,” *International Journal of Production Research*, 52(13):4093-4102 (DOI: 10.1080/00207543.2014.889860)
29. Milne, R.J. and Wang, C-T., (2014), “Enhancing mathematical programming models to account for demand priorities increasing as a function of delivery date,” *Journal of Industrial and Production Engineering*, 31(1):51-63 (DOI: 10.1080/21681015.2014.881426)
30. Milne, R.J. and (Clarkson undergraduate student) Kelly, A.R., (2014), “A new method for boarding passengers onto an airplane,” *Journal of Air Transport Management*, 34(1):93-100 (DOI: 10.1016/j.jairtraman.2013.08.006)
31. Degbotse, A., Denton, B., Fordyce, K., Milne, R.J., Orzell, R., and Wang, C-T., (2013), “IBM blends heuristics and optimization to plan its semiconductor supply chain,” *Interfaces*, 43(2):130-141 (DOI: 10.1287/inte.1120.0642)
(A four paragraph summary based on this paper may be found on page 283 of the 13th edition of the textbook *Quantitative Methods for Business* by Anderson et al.)
32. Milne, R.J., Wang, C-T., Yen, C-K A., and Fordyce, K., (2012), “Optimized material requirements planning for semiconductor manufacturing,” *Journal of the Operational Research Society*, 63(11):1566-1577 (DOI: 10.1057/jors.2012.1)
33. Milne, R.J. and Zander, A.K., (2012), “Operations Research Capstone Courses for Business Majors with Analytical Backgrounds,” *INFORMS Transactions on Education*, 13(1):2-9. (DOI: 10.1287/ited.1120.0091)
34. Wang, C-T., Fordyce K., Milne, R.J., and Orzell, R., (2008), “The IBM advanced planning system for managing next generation demand-supply Networks,” *International Journal of Integrated Supply Management*, 4(1):125-140. (DOI: 10.1504/IJISM.2008.016072)
35. Denton, B., Forrest, J., and Milne, R.J., (2006), “IBM solves a mixed-integer program to optimize its supply chain,” *Interfaces*, 36(5):386-399. September/October 2006 (10.1287/inte.1060.0238) (**Wagner Prize Winner**)
36. Lyon, P., Milne, R.J., Orzell, R., and Rice, R., (2001), “Matching assets with demand in supply chain management at IBM Microelectronics,” *Interfaces*, 31(1):108-124. (DOI: 10.1287/inte.31.1.108.9693) (**Franz Edelman Finalist Award**)
37. Graves, R.J. and Milne, R.J., (1997), “A new method for order release,” *Production Planning and Control*, 8(4):332-342. (DOI: 10.1080/095372897235145)
38. Graves, R.J., Konopka, J.M., and Milne, R.J., (1995), “Literature review of material flow control mechanisms,” *Production Planning and Control*, 6(5):395-403. (DOI: 10.1080/09537289508930296)

Refereed Book Chapters

1. Fordyce, K., and Milne, R.J., (2012), “The Ongoing Challenge for a Responsive Demand Supply Network: the Final Frontier—Controlling the Factory,” chapter 3 in *Decision Policies for Production Networks*, edited by Armbruster, H.D. and Kempf, K. Springer. pp.31-69. (ISBN: 978-0857296436)
2. Fordyce, K., Wang, C-T, Chang, C-H, Degbotse, A, Denton, B., Lyon, P., Milne, R.J., Orzell, R., Rice, R., and Waite, J., (2011), “The Ongoing Challenge: Creating an Enterprise-wide Detailed Supply Chain Plan for Semiconductor and Package Operations,” chapter 14, pp.313-387 in *Planning Production and Inventories in the*

Extended Enterprise: A State of the Art Handbook, Volume 2, edited by Kempf, Keskinocak, and Uzsoy. Springer. International Series in Operations Research & Management Science, Vol. 152. (ISBN: 978-1441981905)

Refereed Conference Proceedings

1. Fordyce, K., Milne, R.J., Wang, C-T., and Zisgen, H., (2014), “Wafer Fabrication Capability Assessment—opportunities and challenges to improve responsiveness—a view from the trenches,” *Proceedings of the 2014 International Symposium on Semiconductor Manufacturing Intelligence*
2. Fordyce, K., Milne, R.J., Fournier, J., Singh, H., (2012), “Tutorial: Illusion of Capacity—Challenge of Incorporating the Complexity of Fab Capacity (Tool Deployment & Operating Curve) into Central Planning for Firms with Substantial Non-fab Complexity,” *Proceedings of the 2012 Winter Simulation Conference*. pp. 2302-2317. December 9-12, 2012, Berlin, Germany
3. Milne, R.J., (2012), “Teaching decision problem formulating and solving skills usings spreadsheets,” *Proceedings of the 2012 American Society for Engineering Education, St. Lawrence Section Annual Conference*, Potsdam, NY, March 24, 2012. pp. 26-30 at: http://www.asee.org/papers-and-publications/papers/section-proceedings/st-lawrence/2012_St_Lawrence_Section_Conference_Papers.pdf
4. Fordyce, K., and Milne, R.J., (2011), “The Ongoing Challenge — a Responsive Enterprise-wide Demand Supply Network for Semiconductor Based Package Goods — Something for Everyone,” *Proceedings of the 2011 Multidisciplinary International Conference on Scheduling: Theory and Applications (MISTA 2011)*, pp.10-93, August 9-11, 2011, Phoenix, Arizona. (Co-author Ken Fordyce gave this **plenary** presentation.)
5. Fordyce, K., Degbotse, A., Milne, J., Orzell, R., Wang, C-T, (2008), “The Ongoing Challenge—an accurate assessment of supply linked to demand to create an enterprise-wide end to end detailed central supply chain plan,” *Proceedings of the 2008 Winter Simulation Conference*, edited by S.J. Mason, R.R. Hill, L. Moench, O. Rose, T. Jefferson, and J.W. Fowler, pp. 2267-2270
6. Wang, C., Chang, C., Degbotse, A., Fordyce, K., Milne, R.J., Orzell, R. (2007), "OR & Future Supply Chain Planning", *Manufacturing & Service Operations Management (MSOM2007)* June 18-19, 2007, Tsinghua University, Beijing, China
7. Wang, C., Chang, C., Degbotse, A., Fordyce, K., Milne, R.J., Orzell, R. (2007), "Development of a Suite of Advanced Supply Chain Planning Software at IBM" *Manufacturing & Service Operations Management (MSOM2007)* June 18-19, 2007, Tsinghua University, Beijing, China
8. Wang, C-T, Chang, C., Degbotse, A., Fordyce, K., Hegde, S., Milne, R.J., Orzell, R., Patil, S., and Smith, S., (2006), “IBM Operational Framework for Advanced Supply Chain Planning: cutting edge functions for managing next-generation demand-supply networks,” *Proceedings of 2006 International Congress on Logistics and SCM Systems*, Kaohsiung, Taiwan, L1-L9
9. Rothberg, S., Hilmar, J., Milne, R.J., and Konopka, J., (1992), “A market-driven methodology for improving serviceability through an integrated customer/supplier partnership (CSP),” *Advanced Semiconductor Manufacturing Conference and Workshop*. (DOI: 10.1109/ASMC.1992.253823)

Patents

U.S. Patents Granted

1. Milne, R.J., "Method for avoiding or limiting early build due to yield decreases," U.S. Patent 8,615,416, December 24, 2013
2. Degbotse, A., Milne, R.J., Smith, S., and Ward, J., "Systems and methods of adjusting the order of product manufacturing and rescheduling release dates," U.S. Patent 8,452,637, May 28, 2013
3. Furland, T., Milne, R.J., Pastel, L.M.P., Stanley, K.W., and Virun, R.C., "Bit failure signature identification," U.S. Patent 8,451,018, May 28, 2013
4. Denton, B., and Milne, R.J., "Method for simultaneously considering customer commit dates and customer request dates," U.S. Patent 8,234,144, July 31, 2012
5. Degbotse, A., Denton, B. and Milne, R.J., "Approximating cycle times within material flow network," U.S. Patent 8,185,420, May 22, 2012
6. Burda, R., Degbotse, A., Denton, B., Fordyce, K., and Milne, R.J., "Method of release and product flow management for a manufacturing facility," U.S. Patent 8,165,704, April 24, 2012
7. Chang, C., Denton, B., Hegde, S., Milne, R.J., Smith, S., Wang, C., and Ward, J., "Planning production for complementary demands," U.S. Patent 8,140,372, March 20, 2012
8. Ashok, G, Dunki-Jacobs, R., Milne, R.J., Nahar, R., Shah, A., Tandel, S., and Venkatachalam, M., "Systems and methods of securing resources through passwords," U.S. Patent 7,992,008, August 2, 2011
9. Denton, B., Forrest, J., and Milne, R.J., "Method for considering hierarchical preemptive demand priorities in a supply chain optimization model," U.S. Patent 7,966,214, June 21, 2011
10. Denton, B., Milne, R.J., and Orzell, R.A., "Method for purchase order Rescheduling in a linear program," U.S. Patent 7,966,208, June 21, 2011
11. Burda, R., Degbotse, A., Denton, B., Fordyce, K., Hegde, S., Milne, R.J., Shikalgar, S., and Zuo, G. "Method and system for intelligent automated reticle management," U.S. Patent 7,953,507, May 31, 2011
12. Denton, B., Milne, R.J., and Wang, C., "Method for fair sharing limited resources between multiple customers," U.S. Patent 7,937,475, May 3, 2011
13. Denton, B., Elmer, B., Milne, R.J., and Sullivan, A., "Method, apparatus, and computer program product for organizing hierarchical information," U.S. Patent 7,885,958, February 8, 2011
14. Milne, R.J., Orzell, R., and Wang, C. "Large scale supply planning," U.S. Patent 7,856,287, December 21, 2010
15. Denton, B.T., and Milne, R.J., "Method for simultaneously considering customer support dates and customer request dates," U.S. Patent 7,778,860, August 17, 2010
16. Denton, B., Ervolina, T., Milne, R.J., Orzell, R., Raychaudhuri, S., "System for and method of interpolation for supply chain planning," U.S. Patent 7,738,984, June 15, 2010
17. Degbotse, A., Milne, R.J., and Orzell, R., "Supply consumption optimization and multiple component utilization," U.S. Patent 7,734,365, June 8, 2010
18. Denton, B., Milne, R.J., Nahar, R., Pleszkoch, M., Sharma, V., "Method, system, and program product for determining objective function coefficients of a mathematical programming model," U.S. Patent 7,689,592, March 30, 2010

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19. Denton, B., Fordyce, K., and Milne, R.J., "Method for autonomic control of an automated manufacturing system," U.S. Patent 7,653,451, January 26, 2010
20. Degbotse, A., Milne, R.J., and Orzell, R., "Supply consumption optimization and multiple component utilization," U.S. Patent 7,590,463, September 15, 2009
21. Milne, R.J., Orzell, R., and Wang, C. "Large scale supply planning," U.S. Patent 7,590,461, September 15, 2009
22. Denton, B., and Milne, R.J., "Method for simultaneously considering customer commit dates and customer request dates," U.S. Patent 7,584,113, September 1, 2009
23. Burda, R., Degbotse, A., Denton, B., Fordyce, K., Milne, R.J., "Method of release and product flow management for a manufacturing facility," U.S. Patent 7,477,958, January 13, 2009
24. Denton, B., Milne, R.J., and Wang, C., "Method for fair sharing limited resources between multiple customers," U.S. Patent 7,383,337, June 3, 2008
25. Ashok, G, Dunki-Jacobs, R., Milne, R.J., Nahar, R., Shah, A., Tandel, S., and Venkatachalam, M., "Systems and methods of securing resources through passwords," U.S. Patent 7,373,516, May 13, 2008
26. Denton, B., Fordyce, K., and Milne, R.J., "Method for autonomic control of an automated manufacturing system," U.S. Patent 7,349,751, March 25, 2008. Note: On November 5, 2008, the patent office issued a certificate of correction which recorded Milne as a co-inventor of this patent; however, this correction appears to have been updated in only some records in the patent office's data bases.
27. Burda, R., Degbotse, A., Denton, B., Fordyce, K., and Milne, R.J., "Method, system, and computer program product for controlling the flow of material in a manufacturing facility using an extended zone of control," U.S. Patent 7,305,276, December 4, 2007
28. Denton, B., Forrest, J., and Milne, R.J., "Method for sizing production lot starts within a linear system programming environment," U.S. Patent 7,292,904, November 6, 2007
29. Burda, R., Degbotse, A., Denton, B., Fordyce, K., Milne, R.J., and Williamson, E., "Method, system, and computer program product for improved flow of development lots in a manufacturing facility," U.S. Patent 7,239,930, July 3, 2007
30. Burda, R., Degbotse, A., Denton, B., Fordyce, K., Milne, R.J., Shikalgar, S., and Zuo, G. "Method and system for intelligent automated reticle management," U.S. Patent 7,206,652, April 17, 2007
31. Coppola, K., Denton, B., Mackay, G., and Milne, R.J., "Method, system and storage medium for integrating rework operations into an advanced planning process," U.S. Patent 7,200,454, April 3, 2007
32. Hegde, S., Milne, R.J., Orzell, R.A., Pati, M.C., and Patil, S.P., "Method for allocating limited component supply and capacity to optimize production scheduling, U.S. Patent 7,197,469, March 27, 2007
33. Denton, B., Fordyce, K., and Milne, R.J., "Method for autonomic control of an automated manufacturing system," U.S. Patent 7,151,972, December 19, 2006
34. Denton, B., Milne, R.J., Orzell, R.A., Vajjala, S., and Ward, J., "Method for optimizing foundry capacity," U.S. Patent 7,103,436, September 5, 2006
35. Denton, B., Fordyce, K., and Milne, R.J., "System and method for batch scheduling of lots based on flow time and number of batches," U.S. Patent 7,043,322, May 9, 2006
36. Denton, B. and Milne, R.J., "Method for optimizing material substitutions within a supply chain," U.S. Patent 6,983,190, January 3, 2006

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37. Hegde, S., Milne, R.J., Orzell, R.A., Pati, M., Patil, S., “Decomposition system and method for solving a large-scale semiconductor production planning problem,” U.S. Patent 6,701,201, March 2, 2004
38. Milne, R.J., O’Neil, J.P., Orzell, R.A., Tang, X., and Wong, Y., “Projected supply planning matching assets with demand in microelectronics manufacturing,” U.S. Patent 6,049,742, April 11, 2000
39. Dangat, G.S., Milne, R.J., and Orzell, R.A., “Method to provide common support for multiple types of solvers for matching assets with demand in microelectronics manufacturing,” U.S. Patent 6,041,267, March 21, 2000
40. Dangat, G.S., Gokhale, A.R., Li, S., Milne, R.J., Orzell, R.A., Reid, R.L., Tang, X, and Yen, C., “Best can do matching of assets with demand in microelectronics manufacturing,” U.S. Patent 5,971,585, October 26, 1999
41. Milne, R.J., Orzell, R.A., and Yen, C. “Advanced material requirements planning in microelectronics manufacturing,” U.S. Patent 5,943,484, August 24, 1999

Foreign Patents

42. Burda, R., Degbotse, A., Denton, B., Fordyce, K., Hegde, S., Milne, R.J., Shikalgar, S., and Zuo, G. “Method, system and program storage device of controlling a manufacturing system,” Taiwan Patent TWI363258, May 1, 2012
43. Burda, R., Degbotse, A., Denton, B., Fordyce, K., and Milne, R.J., “Method, system, and computer program product for controlling the flow of material in a manufacturing facility using an extended zone of control”, China Patent ZL20060136608.2, April 15, 2009
44. Coppola, K., Denton, B., Mackay, G., and Milne, R.J., “Method, system and storage medium for integrating rework operations into an advanced planning process,” China patent ZL200480024691.3, February 11, 2009
45. Coppola, K., Denton, B., Mackay, G., and Milne, R.J., “Method, system and storage medium for integrating rework operations into an advanced planning process,” Taiwan patent TWI302660, November, 1, 2008
46. Burda, R., Degbotse, A., Denton, B., Fordyce, K., Milne, R.J., Shikalgar, S., and Zuo, G. “Method and system for intelligent automated reticle management,” China patent ZL200510092652.3, September 3, 200

Conference Presentations

1. Co-author, Lustig, I., Balaporia, Z., Kempf, K., Milne, J., Saxena, R., “Change Management for Analytics Projects,” INFORMS Analytics Conference, Orlando, 2016
2. Co-author, Fordyce, K., Milne, R.J., Lyon, P., Tenga, R., Singh, H., Singh, S., Sullivan, G., and Wang, C.-T., “Supply Chain Management Planning for the Production of Semiconductor Based Packaged Goods: Tasks, Purposes, Challenges, and a bit of History—a Perspective from Agents of Change in the Trenches,” Seminar 16062 on Modeling and Analysis of Semiconductor Supply Chains, Dagstuhl, Germany, 2016
3. Co-author, Lustig, I., Balaporia, Z., Kempf, K., Milne, J., Saxena, R., “Change Management for Analytics Projects,” INFORMS Annual Meeting, Philadelphia, 2015
4. Presenter, Milne, R.J. and Wang, C.-T., “Incorporating Dynamic Relative Importance into Health Care Resource Allocation Models,” 5th Biennial Workshop on Information Intensive Services, Whitman School of Management at Syracuse University, 2015
5. Co-author, Fordyce K., Milne, R.J., Wang, C-T., and Zisgen, H., “Wafer Fabrication Capability Assessment—Opportunities and Challenges to Improve Responsiveness—a

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- View from the Trenches,” International Symposium on Semiconductor Manufacturing Intelligence, Taipei, August 17, 2014
6. Presenter, Milne, R.J., Martinez, C., Draper, M., and Sethi, R., “Facilitating the Development of Student Inventions,” IIE Conference, Montreal, 2014
 7. Presenter, Milne, R.J. and Kelly, A.R., “A New Method for Boarding Passengers onto an Airplane,” IIE Conference, Montreal, 2014
 8. Co-author, Wang, C. and Milne, R.J., “Incorporating Dynamic Relative Importance into LP and MIP models,” IIE Conference, Montreal, 2014
 9. Co-author, Fordyce K., Milne, R.J., and Wang, C-T., “Industrial Strength Optimization for Enterprise SCM—Observations from the Trenches,” IIE Conference, Montreal, 2014
 10. Presenter, Milne, R.J., “Practical aspects of getting people to use OR models,” INFORMS Professional Colloquium, Boston, 2014
 11. Co-author, Fordyce, K., Milne, R.J., Fournier, J., Singh, H., (2012), “Tutorial: Illusion of Capacity—Challenge of incorporating the Complexity of Fab Capacity (Tool Deployment & Operating Curve) into Central Planning for Firms with Substantial Non-fab complexity,” 2012 Winter Simulation Conference, December, 2012, Berlin, Germany
 12. Presenter, Milne, R.J., “Teaching decision problem formulating and solving skills using spreadsheets,” American Society for Engineering Education, St. Lawrence Section, Clarkson University, March 23-24, 2012
 13. Co-author, Fordyce, K., and Milne, R.J., (2011), “The Ongoing Challenge—a Responsive Enterprise-wide Demand Supply Network for Semiconductor Based Package Goods—Something for Everyone,” Multidisciplinary International Conference on Scheduling: Theory and Applications (MISTA 2011), August, 2011, Phoenix, Arizona. (Co-author Ken Fordyce gave this **plenary** presentation)
 14. Presenter, Milne, R.J., and Biehn, N. “Getting People to Change During OR Projects,” INFORMS Professional Colloquium, Chicago, 2011 (Invited to Reprise)
 15. Presenter, Milne, R.J., “Blending Linear Programming and Heuristics for Planning IBM’s Semiconductor Supply Chain,” INFORMS Orlando, 2010
(This was one of 20 fifty-minute presentations selected from among 63 submissions)
 16. Presenter, Milne, R.J., “Getting People to Change During OR Projects,” INFORMS Professional Colloquium, Orlando, 2010
 17. Co-author, Fordyce, K., Degbotse, A., Milne, J., Orzell, R., Wang, C-T, (2008), “The Ongoing Challenge—an accurate assessment of supply linked to demand to create an enterprise-wide end to end detailed central supply chain plan,” 2008 Winter Simulation Conference, December, Miami, Florida
 18. Co-presenter, Fordyce, K., Burda, R., Chang, C., Degbotse, A., Milne, R.J., and Orzell, R., “Mathematical Optimization’s role in Structured Problem Solving,” IBM Vermont Symposium on Structured Problem Solving, May 13-15, 2008
 19. Co-author, Wang, C., Chang, C., Degbotse, A., Fordyce, K., Milne, R.J., and Orzell, R., “OR and Future Supply Chain Planning,” Manufacturing & Service Operations Management, Beijing, 2007
 20. Co-author, Wang, C., Chang, C., Degbotse, A., Fordyce, K., Milne, R.J., and Orzell, R., “Development of a suite of advanced supply chain planning software at IBM,” Manufacturing & Service Operations Management, Beijing, 2007

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21. Co-author, Degbotse, A., Elmer, B., Milne, R.J., Orzell, R.A., and Wang, C., “Matching Supply from Multiple Components to Competing Demands with Changing Attributes,” INFORMS, Pittsburgh, 2006
22. Co-author, Fordyce, K., Degbotse, Milne, R.J., Wang, C., Orzell, R. and Sullivan, G. “Extending the Borders of “Bounded Rationality” in Demand-Supply Networks”, POMS 2006, May 1, 2006, Boston, MA
23. Co-author, Wang, C., Chang, C., Degbotse, A., Fordyce K., Hegde, S., Milne, R.J., Orzell, R., Patil, S., and Smith, S., (2006), “IBM Operational Framework for Advanced Supply Chain Planning: Cutting edge functions for managing next generation demand-supply networks,” 2006 International Congress on Logistics and SCM Systems, Kaohsiung, Taiwan, May, 2006
24. Co-presenter, “Methods for Solving a Mixed Integer Program for Semiconductor Supply Chain Optimization at IBM,” reprise INFORMS, Miami, Florida 2006
25. Co-presenter, “Methods for Solving a Mixed Integer Program for Semiconductor Supply Chain Optimization at IBM,” INFORMS, San Francisco, California 2005
26. Co-author, “Emerging Challenges for Supply Chain Management (SCM) Matching Applications: Improving Organizational Responsiveness,” POMS, Chicago, 2005
27. Co-author, “Continuous Improvement in Semiconductor Supply Chain Optimization at IBM Systems and Technology Group,” INFORMS, Denver, Colorado 2004
28. Co-author, “Semiconductor Supply Chain Optimization at IBM’s Systems and Technology Group,” INFORMS, Cambridge, Massachusetts 2004
29. Co-author, “Optimization of Production Planning in IBM’s Microelectronics Supply Chain,” University of Florida Supply Chain Optimization Conference, Gainesville 2003
30. Co-author, “Optimization of Production Planning and Scheduling for Semiconductor Manufacturing,” INFORMS, San Jose, California 2002
31. Co-author, “Decision Technology as the Lynchpin to SCM Synchronization for IBM Technology Group—An Overview,” INFORMS, San Jose, California 2002
32. Co-author, “Supporting IBM Microelectronics State of the Art 300mm Wafer Line—One Eye on Customer Status and another on Line Dispatch,” INFORMS, San Jose, 2002
33. Presenter, “PROFIT: Planning Resources Optimally for Integrated Technology,” INFORMS poster board session, San Antonio, Texas 2000
34. Presenter, “Beware of what you ask for: issues in owning a large daily linear program people rely upon,” INFORMS, Salt Lake City, Utah 2000
35. Presenter, “Advanced MRP at IBM Microelectronics,” INFORMS, Philadelphia, 1999
36. Presenter, “Advanced MRP for Semiconductor Manufacturing,” INFORMS, Montreal, 1998
37. Co-author, “A Market-Driven Methodology for improving interplant serviceability through Set Leverage Analysis,” Center for Manufacturing Systems Engineering, 7th Conference with Industry, Lehigh University, Bethlehem, PA., May 25-26, 1993
38. Co-author, “Evaluation of Service Performance Measures when yield and cycle times are stochastic,” Konopka, J., Milne, R., and Verdini, W., POMS National Conference, Orlando, FL, October 18-21, 1992
39. Co-author, “A Market-Driven Methodology for Improving Serviceability through an integrated Customer/Supplier Partnership (CSP),” Advanced Semiconductor Manufacturing Conference (ASMC), Cambridge, MA, September 28-29, 1992

Visibility of Research in Popular Media (Highlights)

Radio

- **BBC World Update** with Dan Damon, London, 3 April 2014
- *6PR—Breakfast with Steve and Basil*, Perth, Australia, 11 February 2014
- *WXXI Radio* with Kate O’Connell, Rochester, NY, 7 January 2014

Television

- **Fox 5 NY**, New York City Metropolitan area, “Faster Boarding?” 20 September 2018
- YNN, Time Warner Cable News, “Researchers devise method to speed up plane boarding,” people told me they saw me on television in the following regions: Albany, Rochester, St. Lawrence County, and Syracuse circa: 12 January 2014
- *7 News* (local CBS affiliate), “Clarkson Researchers Offer Solution to Airline Boarding Delays,” on 6 pm and 11 pm news and summarized during their commercials for that night’s news, 10 January 2014
- **NBC’s Today Show**, “What’s Trending Today: It’s Plane Easy—Fastest Airplane Boarding Methods,” 6 January 2014

Major Newspapers

- *Wired*, “The Art and Science of Boarding an Airplane in a Pandemic,” 22 January 2021
- *NY Times*, “How to (Literally) Drive the Coronavirus Away,” 16 January 2021 (updated 17 January 2021)
- *AFAR Magazine* [over 1M readers], “Why Can’t Airlines Fix the Boarding Process?”, 4 December 2019
- *Telegraph* [London], “Has Gatwick found the perfect way to board a plane?”, 30 October 2019 [by Oliver Smith, Digital Travel Editor]
- *Telegraph* [London], “When did boarding a plane become so complicated?”, 14 December 2018
- **Los Angeles Times**, “Delta Air Lines’ new boarding process loads big spenders and loyal customers first,” 13 December 2018
- *ABC News Online* [Australia], “What’s the fastest way to board an aeroplane? It’s definitely not how we do it now,” 14 August 2018.
- *Telegraph* [London], “Pay least, board last—British Airways unveils its newest policy”, 20 November 2017
- *Telegraph* [London], “A US airline has unveiled the most complicated boarding system of all time”, 24 February 2017
- *Telegraph* [London], “A simple change will speed up plane boarding—so why won’t airlines listen?” 14 September 2016
- *The New Zealand Herald*, “Airports minus queues equals...,” 13 May 2014
- **MailOnline** [London], “An end to queuing for flights? Scientists devise formula for boarding airline passengers depending on how much hand luggage they have,” 11 May 2014
- *Telegraph* [London], “Fastest way to board a plane,” 11 May 2014
- *The Western Australian* [WA Today, Perth], “By the bag: a faster way to board planes,” 10 February 2014
- *The Age* [Melbourne], “By the bag: a faster way to board planes,” 9 February 2014

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- *The Sydney Morning Herald*, “By the bag: a faster way to board planes,” 9 February 2014
- *Milwaukee Wisconsin Journal Sentinel*, “Board by number of bags might be fast,” 10 January 2014
- *Orlando Sentinel*, “A new idea for faster boarding: by carry-on bag,” 6 January 2014
- *Sacramento Bee*, “A new idea for faster boarding: by carry-on bag,” 6 January 2014
- *Chicago Tribune*, “New airline seating plan looks at time wasted stowing carry-on bags,” 5 January 2014
- *Los Angeles Times*, “New airline seating plan looks at time wasted stowing carry-on bags,” 5 January 2014

Foreign Language Press

- Echipa Mindcraft Stories, “Cum urcăm în avion pentru a scădea riscul de COVID-19? Soluția unor cercetători români,” 11 February 2021
- Replicário, “A arte e a ciência de embarcar em um avião durante uma pandemia”, 23 January 2021
- *Aftenposten* [Norway’s largest newspaper], “Fire måter å boarde et fly på,” 16 March 2015
- *Bergens Tidende*, “Fire måter å boarde et fly på,” 17 February 2015
- *Økonomi - Forbrukerrådet.no*, “Slik bor flyene boards,” 17 February 2015
- *Okezone.com*, “Pesawat Delay, Bukan Hanya Salah Maskapai,” 12 February 2014
- *Ekstra Bladet*, “Hvordan boarder man hurtigst et fly?” 10 February 2014
- *Basler Zeitung*, “Die Mathematik des Boardings,” 17 January 2014
- *Bernerzeitung.ch*, “Die Mathematik des Boardings,” 17 January 2014
- *Tagesanzeiger.ch*, “Die Mathematik des Boardings,” 12 January 2014
- *Mihai Jurca (The Guide)*, “O noua metoda de imbarcare a pasagerilor, care ar putea economisi timp si bani in aviatie,” 7 January 2014

Teaching

Teaching Summary at Clarkson

I have taught the below courses at Clarkson University. EM331 and OM331 are cross-registered courses where a section of each is taught together at the same time. EM456 is the replacement name for ES456.

- EM331/OM331 Operations and Supply Chain Management
 - fall semesters (2011, 2010—two sections)
 - spring semesters (2021—two sections, 2015-2018, 2012—two sections)
- EM333 Operations Research
 - fall semesters (2022, 2011-2019)
 - spring semesters (2020, 2019, 2014, 2011)
- EM356/SB356 Invention Development & Protection
 - SB356: spring 2020, fall 2018, spring 2018, fall 2017
 - EM356: fall 2020 (two sections), spring 2020, fall 2018

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- EM456/ES456 Engineering & Management Capstone Design Projects
 - fall semesters (2022, 2012-2020—two sections in 2020)
 - spring semesters (2022, 2015-2020, 2013-2014—two sections, 2011—two sections)
- Undergraduate Research (and in the case of EM487, special projects)
 - Spring 2020 (EM487—four students), spring 2019 (EM487—four students), fall 2015 (EM490), fall 2014 (EM490), spring 2013 (ES443)

Student Patents

Provisional U.S. patent applications filed by Milne's students

1. Craig, L. and Miller, K., "Waterfowl Decoy Attachment," Application 63/387522, filed 15 December 2022.
2. Gelfuso, N. and Reville, J., "Internal Decking Heating Apparatus," Application 63/387521, filed 15 December 2022.
3. Mook, E. and Ogborn, B., "Pallet Moving Machine," Application 63/387520, filed 15 December 2022.
4. Liu, K. and VanHelsdingen, B., "Lifting Grip for Long Nails," Application 63/400430, filed 24 August 2022.
5. Liu, K. and VanHelsdingen, B., "Suitcase with a Vacuum Compressible Compartment," Application 63/400425, filed 24 August 2022.
6. Gomez, L., Nee, M., and Pennington, J., "Detachable Weightlifting Bar Grip," Application 63/341787, filed 13 May 2022.
7. Gilchrist, A., Perez, J., and Scheremeta, S., "Magnetic Bait and Tackle Launcher," Application 63/341783, filed 13 May 2022.
8. Smith, C., Spinosa, Z., and Vaccaro, A., "Coat Lock," Application 63/341781, filed 13 May 2022.
9. Weiner, R., "Ski Boot Liner," Application 63/341778, filed 13 May 2022.
10. Sciotti, J. and Silvanic, H., "Smart Hard Hat," Application 63/341675, filed 13 May 2022.
11. Anastasia, C. and Pych, S., "Footwear and Tongue Fastener," Application 63/341671, filed 13 May 2022.
12. Blount, C., Hoang, X., and Mee, T., "Sink Protector and Splash Guard," Application 63/341667, filed 13 May 2022.
13. Hadley, J. and Penney, B., "Whiteboard Section Selector and Eraser," Application 63/341666, filed 13 May 2022.
14. Andreaggi, D., Clark, M., and Novak, W., "Windshield ice, snow, and frost removal apparatus," Application 63/341608, filed 13 May 2022.
15. Hadley, J. and Penney, B., "Wearable Food Holder," Application 63/341602, filed 13 May 2022.
16. Burditt, A. and Greenwood, Z., "Beverage Dispensing Pillow," Application 63/341600, filed 13 May 2022.
17. Cardinuto, A., Hill, C., Hill, J., LoMascolo, D., and Pendris, C., "Solar Panel Frame," Application 63/126116, filed December 16, 2020.
18. Morrill, R., Tessier, A., and Ulrich-Verderber, L., "Face mask for visual communication and air filtration," Application 63/126035, filed December 16, 2020.

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19. Forrester, E., Noll, T., and Richards, J., "Portable Multi-use Sports Goal," Application 63/126004, filed December 16, 2020.
20. Bouwens, J. and Howley, R., "Ice Fishing Apparatus," Application 62/030534, filed May 27, 2020.
21. Harvin, L. and Phadnis, M., "Touchpad Gaming Controller," Application 62/030487, filed May 27, 2020.
22. Miller, R., Stone, M., and Thomason, A., "Phone Case," Application 62/030428, filed May 27, 2020.
23. Chesin, N., Homkey, A., and Zaffran, E., "Portable Waste Container", Application 62/958331, filed January 8, 2020
24. Gambell, J., Happel, E., and Horne, A., "Tripod Smartphone Charger", Application 62/958057, filed January 7, 2020
25. Knick, A., Merritt, B., and Strok, D., "Electronic Accessories Case", Application 62/958005, filed January 7, 2020
26. LoMascolo, D., LoMascolo, M., and Sullivan, D., "Multiple Compartment Dispenser", Application 62/957931, filed January 7, 2020
27. Braun, T., Holdrege, K, and Salzman, J., "The Entity Presence Detection and Notification System", Application 62/957873, filed January 7, 2020
28. Armstrong, A., Hornak, M., and Morrill, M., "Water Vessel Protection System," Application 62/844806, filed May 8, 2019
29. Lapasnick, J. and Szot, C., "Bow Holder," Application 62/832671, filed April 25, 2019
30. Bonin, C., Menapace, S., and Messier Jr., M, "Heating and Dimming Glass," Application 62/837242, filed April 23, 2019
31. Cain, R., Popp, T., and Slack, A., "Free-weight tracking and support device," Application 62/837220, filed April 23, 2019
32. Brogan, C. and Voss, C., "Bed Dressing Stabilizer," Application 62/836756, filed April 22, 2019
33. Atkins, B., Bushway IV, E., and Paul, T., "Back-of-Hand Use Liquid Dispenser," Application 62/836124, filed April 19, 2019
34. Heinike, J. and Kozsan, Z., "Windshield Heater," Application 62/836104, filed April 19, 2019
35. Fountain, S., Reese, C., and Seaman, B., "Automatic Telescoping Trailer Hitch," Application 62/835134, filed April 17, 2019
36. Baker, B. and O'Leary, T., "Apparatus for hanging objects," Application 62/775576, filed December 5, 2018
37. Guinta, N., McDonald, R., and Wheeler, S., "Personal Cooling Patch," Application 62/775458, filed December 5, 2018
38. Hornak, M., Malczewski, B., and McKinley, K., "Customizable compression device," Application 62/774470, filed December 3, 2018
39. McLeod, J., Seagrave, N., and Todd, S., "An apparatus for protecting the eye," Application 62/774400, filed December 3, 2018
40. Cushing, E., Faulkner, L, and Holdrege, M., "Beer Keg Tapping Apparatus," Application 62/774350, filed December 3, 2018
41. Carbon, C., Dawley, B., and Hartnagel, A., "Fluid container for regulating temperature," Application 62/7744349, filed December 3, 2018

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42. Lancette, S., Montagne, E., and Sheridan, R., "Method for Tracking Campus Involvement," Application 62/668457, filed May 8, 2018
43. Gohl, C. and Piraino, G., "A method for determining and communicating hair modifications," Application 62/666227, filed May 3, 2018
44. Armstrong, A. and Hornak, M., "Boat Protection System," Application 62/665762, filed May 2, 2018
45. Lock, C., Rieth, L., Safford, T., and Slack, A., "Mountable Phone Case," Application 62/659388, filed April 18, 2018
46. Drenna, L. and Naughter, J., "Dynamic Garment," Application 62/658656, filed April 17, 2018
47. Bach, A., Judson-Cady, J., and Knauf, B., "Lavatory Item Carrier," Application 62/658199, filed April 16, 2018
48. Green, B., Jones IV, H., and Lazarus, K., "Heated Housing for Animals," Application 62/658089, filed April 16, 2018
49. Ballard, A., Fortin, N., Morrill, M., and Parker, J., "Heat Retaining Phone Pouch," Application 62/608139, filed December 20, 2017
50. Carroll, Jr., J., Clough, J., Mitchell, F., Najewski, S., and Wittek, A., "At Home Device for Receiving Packages from UAVs," Application 62/595809, filed December 7, 2017
51. Aitken, K., Larson, C., Miron, J., and Sabnani, N., "Automated Footwear Cleaning Apparatus," Application 62/594087, filed December 4, 2017
52. Fanelli, M., McNeil, K., and Valik, S., "Hole Saw Plug Ejector," Application 62/594629, filed December 5, 2017
53. Peczonczk, H., Voorhees, C., and Westerdale, A., "Personal Emergency Air Filter," Application 62/592483, filed November 30, 2017
54. Abel, T., Mathews, R., and Negron, H., "Beverage Carrier," Application 62/502837, filed May 8, 2017
55. Dosser, S., Francis, M., and Gibbons, E., "Ticket Management Network," Application 62/502804, filed May 8, 2017
56. Honey, C. and Johnson, M., "Personal Myofascial Adhesion Detector and Reliever," Application 62/502792, filed May 8, 2017
57. Miner, Jr., D., White, A., and White, T., "Mask for Preventing Asphyxiation," Application 62/84493, filed April 12, 2017
58. Beck, N., Lenta, N., and Okosky, G., "Prosthetic Pressure Claw," Application 62/431463, filed December 8, 2016
59. Rakeicki, A., Hutton, J., and Van Bramer, J., "Windshield Defender", Application 62/431448, filed December 8, 2016
60. Prehoda, D. and Thayer, B., "Cuff for monitoring and reacting to core body parameters," Application 62/429935, filed December 5, 2016
61. Drake, D.M. and Luskay, J.C., "Device capable of sorting pills," Application 62/429904, filed December 5, 2016
62. Beck, N., Holodook, C., and Marron, J., "Head Positioning and Support Device," Application 62/422829, filed November 16, 2016
63. Gilbert A., Martin, R., Recchia, R., and Wierzba, J., "Assistive Reading Device," Application 62/422136, filed November 15, 2016
64. Galek, B., Hammond, J., and Wickstat, D., "BluScale" application 62/326870, filed April 25, 2016

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65. Anson, M., Arasu, A., Snyder, S., and Zeigler, S., "Gait Belt Air Cushion Accessory," application 62/325487, filed April 21, 2016
66. Levey, D., Scheutzow, P., and Zwierzchowski, S., "Strength and Cardio Tracking Exercise Equipment," application 62/325174, filed April 20, 2016
67. Griffith, S., Hoppy, J., Jeffrey, E., and Musialowski, M., "Grater Gloves," application 62/323846, filed April 18, 2016
68. Ancin, P., DeMott, A., and Farley, B., "Parking Garage Assistance System," application 62/322826, filed April 15, 2016.
69. Miller, N., Scaia, T., and Shepardson, T., "Paint-o-Matic 4000," application 62/261507, filed December 1, 2015
70. Snider, C., "Automated Solar Snow Removal Device, application 62/256201, filed November 17, 2015
71. Losito, R. and Virkler, T., "Soft terrain wheelchair attachments," application 62/254230, filed November 12, 2015
72. Chapman II, D., "Snap-on clip for finishing surfaces of buildings," application 62/253719, filed November 11, 2015
73. Abraham, T., Gaston, W., and Magiera, C., "Text-Stop," application 62/153113, filed April 27, 2015
74. Goldstone, T., Siracuse, J., and Weller, C., "The Sleeper Hold," application 62/150339, filed April 21, 2015
75. Shuster, A., Morton-Black, B., Geraghty, D., and Dilai, K., "Drying Enclosure," application 62/149939, filed April 20, 2015
76. Feldman, B.H. and McNulty, N.C., "Kay-Pac" application 62/149782, filed April 20, 2015
77. Hanson, D. and Harrison, J., "Vending Machine Cooling Apparatus," application 62/149752, filed April 20, 2015
78. Caldara, L. and McPike, P., "Twier," application 62/088915, filed December 8, 2014
79. Batchelder, T., Ciani, M., Mailhot, J., and Mailhot, J-P., "Cross Belt," application 62/087452, filed December 4, 2014
80. Ribeiro, A., Rouleau, B., Russell, J., and Woodhouse, J., "Yard Bot," application 62/085777, filed December 1, 2014
81. Doud, B., Redlinski, E., and Miller, J., "Near-Waist Loading, Lift-Assisted Roof Rack System," application 62/080,486, filed November 17, 2014
82. Collins, S., Dekanek, C., Huie, J., and Tremblay, E., "Estrous Cow Tracker," application 61/986,209, filed April 30, 2014
83. Carreau, K., Greenwald, C., Kunkel, J., and Woods, T., "Eskimo Tek," application 61/985,569, filed April 29, 2014
84. Clement, R. and Gipe, C., "Jumper Bin," application 61/985,506, filed April 29, 2014
85. Carreau, K., Greenwald, C., Kunkel, J., and Woods, T., "Food Aid Device," application 61/985,120, filed April 28, 2014
86. Keida, P., Krauss, T., Plummer, C., and Wilder, A., "Couch Table," application 61/984,101, filed April 28, 2014
87. Baum, E., Castellano, M., Hill, A., and Riggi, E., "Piezoelectric Seaweed," application 61/983,504, filed April 24, 2014
88. Liddy, D. and Wright, J., "Choozie," application 61/984223, filed April 25, 2014

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89. Gillingham, C., Jeffrey, S., Winsman, L., and Wyant, C., “Pet Link,” application 61/983,724, filed April 24, 2014
90. Zimmer, S., Kroll, D., Dick, J. and Schumacher, M., “Lift-a-Leg,” application 61/978,500, filed April 11, 2014
91. Briggs, P., Chudy, B. and Hopkins, B., “On-the-Go Blender Cup,” application 61/911,656, filed December 4, 2013
92. Hayward, M., Mayotte, M., and L’Esperance, C., “Eco-Charger,” application 61/904,109, filed November 14, 2013
93. Roberts, C., Ruocco, J. and Simpson, J., “Continuous Detritus Remover,” application 61/904,002, filed November 14, 2013
94. Childs, C. and Rainville, A., “Lost-N-Find,” application 61/903,994, filed November 14, 2013
95. Mageria, K. and Stevens, J., “Peel-Able Plate,” application 61/897,847, filed October 31, 2013
96. Richardson, T., Jipner, B. and Ancillotti, D., “Automated Refueling System,” application 61/764,788, filed February 14, 2013
97. Lenz, G., Stoddard, T. and Barton, F., “Swivel Trailer Hitch,” application 61/764,660, filed February 14, 2013
98. Coffin, C. and Harrison, A., “Spoon and Fork Conversion,” application 61/764,606, filed February 14, 2013
99. Jondro, K. and Sherwin, J., “Advanced Ballistic Interceptor Armor,” application 61/765,357, filed February 14, 2013
100. Rogers, C. and West, J., “Wire, Cord and Cable Modular Organizer Box,” application 61/765,275, filed February 14, 2013
101. Lenz, G., Stoddard, T. and Barton, F., “Rubberized Bike Crankshaft Guard,” application 61/764,184, filed February 14, 2013

Student Presentations

- Jamie Griffin, Stephanie Guzzi, and Jacob Shea presented their business plan for a therapeutic leg extender, North Country Regional Business Plan Competition, Clarkson University, NY, 4/7/2017
(won first place in the advanced technology category)
The same students presented their plan at the NY State Business Plan competition on 4/28/2017. In the state competition, they won a **Spirit Award**.
- Inventor team presentations during Global Entrepreneurship Week, Clarkson University, Novembers, 2013-2016
- Five students (three teams) presented highlights of their research and inventing work to the Business Leadership Council of the Clarkson University School of Business, 5/3/2014
- Alexander Kelly presented, “A new method for boarding passengers onto an airplane,” Clarkson University Student Undergraduate Research Experience Symposium, 4/13/2013
(won first place in computing category)
- Jeff Sherwin presented his business plan for utilizing his body armor invention, North Country Regional Business Plan Competition, Clarkson University, NY, 3/29/2013
(won first place in the products and services category)

Visibility of Teaching in Popular Media

1. “Igniting Invention” is a video that Clarkson’s marketing department created and posted in youtube. In the video, five of Milne’s students discuss their experience inventing at Clarkson University. The video was posted on 5/30/2019 and as of November 2020 has been viewed over 1,000 times. The superintendent of Farmington, CT Public Schools said that she and the Farmington High School principal “are thrilled to share [the video] with our school district community... The video is a powerful example of the impressive programming offered at Clarkson in the area of Engineering and Management.”
2. An article in Entrepreneur Magazine on “5 Schools that Cater to Undergrads Who Want to Be Tech Innovators” includes, “The Invention Capstone Design Class [facilitated by Milne] has seen 52 students develop inventions and file twenty provisional patent applications. Student inventions include: flexible body armor, temperature-resistant cell phone case, tangle-free pet leash and a therapeutic device for paraplegics.”
<http://www.entrepreneur.com/article/237388> (9/15/2014)
3. Milne appeared three times in a PBS television documentary on Building North Country Innovation. Milne appears at times: 10:25, 11:57, and 14:51 in the 24 minute video, first aired 2/25/2014.

Pedagogical and Colloquium Presentations

1. Presenter, Milne, R.J., “Professional Benefits of Volunteering,” presented to Clarkson University’s Engineering & Management Society on November 14, 2016 (Invited presentation)
2. Presenter, Milne, R.J., “Career Lessons from an ORIE Practitioner,” Enterprise Engineering Colloquium, Cornell University, May 4, 2016 (Invited presentation)
3. Presenter, Milne, R.J., Martinez, C., Draper, M., and Sethi, R., “Facilitating the Development of Student Inventions,” IIE Conference, Montreal, 2014
4. Presenter, Milne, R.J., “Practical aspects of getting people to use OR models,” INFORMS Professional Colloquium, Boston, 2014
5. Presenter, Milne, R.J., “Teaching decision problem formulating and solving skills using spreadsheets,” American Society for Engineering Education, St. Lawrence Section, Clarkson University, March 23-24, 2012
6. Presenter, Milne, R.J., and Biehn, N. “Getting People to Change During OR Projects,” INFORMS Professional Colloquium, Chicago, 2011 (Invited to Reprise)
7. Presenter, Milne, R.J., “Getting People to Change During OR Projects,” INFORMS Professional Colloquium, Orlando, 2010

Teaching Workshops Attended

1. Teaching Circle discussions, Clarkson University, several one-hour sessions, Falls 2021-2022
2. Reframing Instruction for Success Everywhere, Clarkson University, July-August 2020
3. IBM Design Thinking workshop, Clarkson University, January 24, 2018
4. Workshop on “Teaching Entrepreneurship Across Disciplines,” Associated Colleges of the St. Lawrence Valley, Potsdam, NY, December 1, 2017
5. Teaching Workshop, Clarkson University School of Business, August 14, 2017

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- 24th Annual Teaching Effectiveness Conference, Associated Colleges of the St. Lawrence Valley, Potsdam, NY, October 24, 2015
- 23rd Annual Teaching Effectiveness Conference, Associated Colleges of the St. Lawrence Valley, Canton, NY, November 1, 2014
- Innovation Acceleration Workshop, CITEC, Potsdam, NY, August 14, 2013
- "Innovations in Engineering and Technology Education," American Society for Engineering Education, Potsdam, NY, March 23, 2012 - March 24, 2012
- "Peak Performance Practices of Productive and Happy Faculty," Clarkson, May 24, 2011
- "19th Annual Teaching Effectiveness Conference," Associated Colleges of the St. Lawrence Valley, Canton, NY, November 6, 2010

Adjunct Teaching

- Adjunct Associate Professor, Dartmouth College, Hanover, NH 2007
 - Taught *Introduction to Optimization Methods* during the fall trimester. This three credit hour course focused on the modeling of managerial decision problems
 - This is a required course in the Dartmouth Master of Engineering Management program offered by their Thayer School of Engineering in conjunction with Tuck School of Business
 - Median student rating for overall quality of the course was "Very Good"
- Adjunct faculty member, Marist College, Poughkeepsie, NY 1990-1992
 - Taught two 3-credit hour classes in *Production Operations Management*
 - Taught two 3-credit hour classes in *Materials Management / Logistics*

Service

Professional Registration

Licensed Professional Engineer, Vermont #68409 (018.0068409)
(valid: 12/29/2010 through 07/31/2024)

Professional Society Memberships

- Member of the Institute for Operations Research and the Management Sciences (INFORMS) 1998-present, 1985-1995
- Lifetime member of Production Operations Management Society (POMS), circa 1993-present
- Member of Analytics Section of INFORMS, 2011-present
- Member of the INFORMS Section on Practice (formerly CPMS), 1998-present
- Member of Manufacturing and Service Operations Management (MSOM) Society, 2010-2020

INFORMS Service

R. John Milne

1. Board member of the INFORMS Section on Practice (formerly Council, formerly CPMS) (2003-present)
2. Special issue editor of the annual *INFORMS Journal on Applied Analytics* (formerly *Interfaces*) issues focusing on the Franz Edelman Award Finalist papers (Jan/Feb 2013 issue-Jan/Feb 2022 issue—ten years)
3. Author of *Edelman Special Issue Editor's Handbook* (October 2021)
4. Associate Editor of the *INFORMS Journal on Applied Analytics* (formerly *Interfaces*), 2016-2021
5. Chair, INFORMS Practice Section Officers Nominating Committee (summer 2021)
6. Served on INFORMS committee for selection of Franz Edelman Award semifinalists and finalists (2002-2019, 2000)
7. Past President, INFORMS Section on Practice (2018-2019)
8. Editor, newsletter of the INFORMS Section on Practice (Fall 2018)
9. Chair, INFORMS Section on Practice (2017) (**re-elected**)
10. Chair, CPMS, the practice section of INFORMS (2016) (**elected**)
11. Vice-chair (Chair-elect), CPMS, the practice section of INFORMS, (**elected** for 2014 term and **re-elected** for 2015 term)
12. Judge on INFORMS panel selecting Franz Edelman Award winner (2012-2016, 2010, 2004-2006)
13. Chair, Franz Edelman Award Procedures Review Committee (2016)
14. Lead author of Edelman Award Chair's Handbook (2016)
15. Lead author of Edelman Award Judge's Handbook (2016)
16. Secretary, CPMS (**elected** for 2012 term and **re-elected** for 2013 term)
17. Verifier of Edelman Award Semifinalists (2017, 2008-2012, 2006, 2002-2003, 2000)
18. Coach of Franz Edelman Award Winner, "Midwest ISO unlocks billions in savings through the application of operations research to energy and ancillary services market," Chicago, IL (2011)
19. Member of INFORMS Board of Directors, Vice President/Practice Activities (**elected** 2008-2009)
20. Member of INFORMS Roundtable Executive Committee (2008-2009)
21. Chair of INFORMS Practitioner and Practice Activities Committee (2008-2009)
22. Coach of Franz Edelman Award Finalist, "Operations Research improves sales force productivity at IBM," Phoenix, AZ (2009)
23. Chair of the INFORMS Franz Edelman Award Gala Committee (2007)
24. Master of Ceremonies, Edelman Honors Reception, INFORMS, Vancouver, BC (2007)
25. Member of INFORMS Edelman Award Gala Committee (2006-2008)
26. Coach of Franz Edelman Award Finalist, "Coca-Cola Enterprises Optimizes its Product Delivery," Vancouver, BC (2007)
27. Chair of the INFORMS Franz Edelman Award Committee (2005 and 2006 competitions)
28. Advisory council member of the INFORMS 2005 and 2006 Practice Conference Meetings
29. Invited Panelist, "How to have an OR Career," INFORMS, San Francisco (2005)
30. Keynote Panelist, "Extreme Makeover of the Edelman Competition: From Internally Distinguished to Externally Celebrated," INFORMS, San Francisco, CA (2005)

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31. Coach of Franz Edelman Award Winner, “The Canadian Pacific Railway Transforms Operations by Using Models to Develop its Operating Plans,” INFORMS, Phoenix, AZ (2003)
32. Coach of Franz Edelman Award Finalist, “Optimization of the production planning and trade of lily flowers at Jan De Wit Company,” INFORMS, San Diego, CA (2001)

Conference Related Service (not included elsewhere on CV)

1. Member, Program Committee of the 18th International Conference on Modeling and Analysis of Semiconductor Manufacturing (MASM), held December 2022, Singapore
2. Member, Program Committee of the 17th International Conference on Modeling and Analysis of Semiconductor Manufacturing (MASM), held December 2021, Desert Ridge, Arizona
3. Member, Program Committee of the 16th International Conference on Modeling and Analysis of Semiconductor Manufacturing (MASM), held December 2020, virtual
4. Member, Program Committee of the 15th International Conference on Modeling and Analysis of Semiconductor Manufacturing (MASM), held December 2019, National Harbor, Maryland
5. Member, Program Committee of the 14th International Conference on Modeling and Analysis of Semiconductor Manufacturing (MASM), held December 2018, Gothenburg, Sweden
6. Member, Program Committee of the 13th International Conference on Modeling and Analysis of Semiconductor Manufacturing (MASM), held December 2017, Las Vegas, Nevada
7. Member, Program Committee of the 12th International Conference on Modeling and Analysis of Semiconductor Manufacturing (MASM), held December 2016, Arlington, Virginia
8. Member, Program Committee of the 2016 International Symposium on Semiconductor Manufacturing Intelligence, held August, 2016, in Taipei, Taiwan
9. Member, Program Committee of the 2015 International Symposium on Semiconductor Manufacturing Intelligence. This symposium was held October 16-18, 2015 at Kaist in Daejeon, South Korea
10. Session Chair, *Transportation Service Systems*, IIE Conference, Montreal, 2014
11. Session organizer for POMS Atlanta 2014
12. Session organizer for POMS Denver 2013
13. Session chair, Edelman Award Finalist Reprises, INFORMS San Diego 2009
14. Keynote session chair, Edelman Award Winner reprise, INFORMS Pittsburgh 2006
15. Session chair, Edelman Award Finalist reprises, INFORMS Pittsburgh, 2006
16. Keynote session chair, Edelman Award Winner reprise, INFORMS Miami, 2006
17. Track chair and sessions chair, Edelman Award competition INFORMS, Miami, 2006
18. Keynote session chair, Edelman Award Winner reprise, INFORMS San Francisco, 2005
19. Session chair, Edelman Award Finalist reprises, INFORMS San Francisco, 2005
20. Keynote session chair, Edelman Award Winner reprise, INFORMS Palm Springs 2005
21. Track chair and sessions chair, Edelman Award competition, INFORMS Palm Springs, 2005
22. Session chair, various non-Edelman sessions at INFORMS, Palm Springs, 2005
23. Session Chair, *Supply Chain Optimization*, INFORMS, Salt Lake City, 2000

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24. Session Chair, *Decision Technology in SCM in Semiconductor Industry Applications*, INFORMS, Philadelphia, 1999
25. Session chair, *Semiconductor Industry Applications*, INFORMS, Montreal, 1998

Professional Articles

1. Beam, C. and Milne, R.J., (2022), "Introduction: 2021 Franz Edelman Award for Achievement in Advanced Analytics, Operations Research, and Management Science," *INFORMS Journal on Applied Analytics*, 52(1):4-7
2. Dewan, P. and Milne, R.J., (2021), "Introduction: 2020 Franz Edelman Award for Achievement in Advanced Analytics, Operations Research, and Management Science," *INFORMS Journal on Applied Analytics*, 51(1):6-8
3. Dewan, P. and Milne, R.J., (2020), "Introduction: 2019 Franz Edelman Award for Achievement in Advanced Analytics, Operations Research, and Management Science," *INFORMS Journal on Applied Analytics*, 50(1):3-6
4. Milne, R.J. and Robinson, A.G., (2019), "Introduction: 2018 Franz Edelman Award for Achievement in Advanced Analytics, Operations Research, and Management Science," *INFORMS Journal on Applied Analytics*, 49(1):3-6
5. Labe, R.P. and Milne, R.J., (2018), "Special Issue Editors' Note: Wagner Prize Finalist Carbajal et al./Turner Broadcasting System," *Interfaces* 48(5), 402-402
6. Milne, R.J., (2018), "Note from the Newsletter Editor," *The Practice Section Newsletter*, October 23, 2018
7. Milne, R.J., (2018), "What's your StORy," *OR/MS Today*, February 2018, p. 23
8. Milne, R.J. and Robinson, A.G., (2018), "Introduction: 2017 Franz Edelman Award for Achievement in Operations Research and the Management Sciences," *Interfaces*, 48(1):3-6
9. Milne, R.J., (2017), "Wide Range of Practice Activities in Houston," October 2017, *INFORMS Practice Section Newsletter*
10. Milne, R.J., (2017), "Volunteering to Advance the Operations Research Profession through the INFORMS Section on Practice," *2017 Edelman Gala Program Book*, INFORMS, p.84
11. Milne, R.J., (2017), "New Name; Same Mission—Advancing the Practice of OR Through the INFORMS Section on Practice," March 2017, *INFORMS Practice Section Newsletter*
12. Milne, R.J. and Trick, M., (2017), "Introduction: 2016 Franz Edelman Award for Achievement in Operations Research and the Management Sciences," *Interfaces* 47(1):1-4
13. Milne, R.J., (2016), "Wide Range of Practice Activities in Nashville," October 2016, *CPMS Newsletter*
14. Milne, R.J., (2016), "Volunteering to Advance the Operations Research Profession through the INFORMS Section on Practice," *2016 Edelman Gala Program Book*, INFORMS, p.80
15. Milne, R.J., (2016), "Orlando Analytics Conference Exciting for CPMS members," March 2016, *CPMS Newsletter*
16. Milne, R.J. and Trick, M., (2016), "Introduction: 2015 Franz Edelman Award for Achievement in Operations Research and the Management Sciences," *Interfaces* 46(1):1-4
17. Milne, J. and Denton, B., (2015), "Your Guide to Analytics Patents," home page of www.allanalytics.com, accessed 24 June 2015

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18. Bell, P. and Milne, R.J., (2015), “Introduction: 2014 Franz Edelman Award for Achievement in Operations Research and the Management Sciences,” *Interfaces* 45(1):1,1-4
19. Robinson, R.S. and Milne, R.J., (2014), “Special Issue Editors’ Note: Wagner Prize Second-Place Winner Lee et al./Grady Health Systems,” *Interfaces* 44(5), 444-444
20. Bell, P. and Milne, R.J., (2014), “Introduction: 2013 Franz Edelman Award for Achievement in Operations Research and the Management Sciences,” *Interfaces* 44(1),3-6
21. Graves, S.C. and Milne, R.J., (2013), “Introduction: 2012 Franz Edelman Award for Achievement in Operations Research and the Management Sciences,” *Interfaces* 43(1),1-4
22. Milne, R.J., (2010), “User Feedback Through Social Networking,” July 2010, *CPMS Newsletter*
23. Milne, R.J., (2010), “Optimizing Your Job Application,” March 2010, *CPMS Newsletter*
24. Milne, R.J., (2009), “Laid-Off OR Professionals,” July 2009, *CPMS Newsletter*
25. Milne, R.J., (2009), “Should I attend this April’s Practice Conference?” March 2009, *CPMS Newsletter*
26. Milne, R.J., (2008), “Judging Edelman Finalists—Which Iceberg is Best?” *2008 Franz Edelman Gala Program Book*, INFORMS, pp. 26-27
27. Milne, R.J. and Graves, S.C., (2007), “Introduction: 2006 Franz Edelman Award for Achievement in Operations Research and the Management Sciences,” *Interfaces* 37(1),2-6
28. Milne, R.J., (2006), “Edelman Finalists Celebrated in Miami,” September 2006, *CPMS Newsletter*
29. Milne, R.J., (2006), “Finalists Announced for 2006 Edelman Competition,” March 2006, *CPMS Newsletter*
30. Milne, R.J. and Graves, S.C., (2006), “2005 Franz Edelman Award for Achievement in Operations Research and the Management Sciences,” *Interfaces* 36(1), 1-5
31. Milne, R.J., (2005), “General Motors Claims 2005 Edelman Prize,” June 2005, *CPMS Newsletter*

Referee Reviews Conducted

1. *European Journal of Operational Research* (2022-December, 2022-July)
2. *Transportation Research Part B* (2022-July)
3. *Winter Simulation Conference Proceedings* (2022-May three times, 2021-May twice, 2020-May twice, 2019-May three times, 2018-May five times, 2017-May twice, 2016-May twice)
4. *Journal of Air Transport Management* (2022-March, 2021-August, 2020-July, 2019-December (twice), 2019-October, 2018-October, 2017-November, 2017-October, 2016-August, 2016-January, 2015-December, 2015-November (twice), 2015-August, 2015-June, 2014-May, 2014-March, 2013-December)
5. *Transportmetrica B: Transport Dynamics* (2021-October, 2021-September, 2021-August (twice), 2021-June, 2021-May (twice))
6. *Sustainability* (2020-December, 2020-June, 2019-September, 2018-September)
7. *INFORMS Journal on Applied Analytics* (2020-March, 2020-February, 2019-September)
8. *IEEE Transactions on Semiconductor Manufacturing* (2020-March twice)
9. *Algorithms* (2019-November)
10. *International Journal of Production Research* (2019-July, 2019-May, 2017-February, 2014-January)

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11. *Mathematics* (2019-July)
12. *INFORMS Transactions on Education* (2017-April, 2016-December)
13. *International Journal of Production Research* (2017-February, 2014-January)
14. *International Journal of Industrial Engineering: Theory, Applications, and Practice* (2015-August)
15. *International Symposium on Semiconductor Manufacturing Intelligence* (2015-August)
16. *Journal of the Operational Research Society* (2015-February, 2013-March, 2011-Sept, 2011-Feb)
17. *Interfaces* (2014-November, 2014-July, 2014-January, 2013-July, 2013-Feb, 2012-May, 2011-June, 2011-May, 2011-April, 2010-August)
18. *Production Operations Management* (2014-March, 2013-May)
19. *IBM Journal of Research and Development* (2012-Feb)
20. *Operations Research* (2011-May, 2011-Feb, 2010-Sept)

Clarkson University Service

David D. Reh School of Business Service

1. Responsible for selecting the student who wins the Dr. Amy K. Zander Engineering and Management Award for Outstanding Career Potential, November 2017-present
2. Meet with prospective E&M students and their parents, 2011-present
 - a. Attend Clarkson Open House (11/11/2022, 10/1/2022)
3. Member, Engineering and Management Faculty Advisory Committee, 2010-present
4. Member, Global Supply Chain Management Curriculum Committee, 2010-present
5. Class visitation and report for Shafique Chaudhry's class in Applied Data Analytics, 22 November 2022
6. Class visitation and report for Ty Mackey's class in Organizational Policy and Strategy, 10 November 2022
7. Member, Faculty Development Committee, Fall 2022-Spring 2024
8. Member, Third Year Review Committees (Fall 2022, Spring 2021)
9. Panelist, E&M Alumni Career Panel organized by the Student Association for Engineering Management—only non-alum invited onto the panel. 8 Sept. 2022
10. Speaker, Reh School Orientation Session for new faculty (23 August 2022)
11. Member, Search Committee for E&M Visiting Assistant Faculty, Spring 2021
12. Member, Undergraduate Policy Committee, March-May 2021
13. *Last Lecture* to E&M graduating seniors at the invitation of the Clarkson chapter of Alpha Pi Mu, May 3, 2021
14. Member, Governance Committee, Fall 2019-Spring 2021
15. Panelist, final presentations by SB437 students on commercializing innovation, spring semesters 2019, 2015, 2014
16. Editor of E&M students' professional experience reports, August 2018-May 2019
17. Reader, Alpha Pi Mu induction ceremony, April 5, 2019; December 7, 2018
18. Class visitation and report for Golshan Madraki's class in Project Management, 5 February 2019
19. Class visitation and report for Amir Mousavian's class in Advanced Project Management, November 2018
20. Chair, Reh School of Business Awards Committee, Spring 2018
21. Member, Reh School of Business Awards Committee, Spring 2017

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22. Chair, Governance Committee, Fall 2016 – Spring 2017
23. Member, Committee to Redesign Innovation and Entrepreneurship Curriculum, Fall 2015-Spring 2017
24. Class Visitation and Report for Mohamed Mekhaimer’s class in Financial Management, April 2016
25. Guest speaker in Joe Andriano’s class in Business Ethics, March 2016
26. Member, Committee on Committees, Fall 2015 – Spring 2016
27. Member, Graduate Admissions Committee for residential and online MBA programs, Fall 2014-Spring 2015
28. Member, ad hoc committee outlining a program for a Master of Supply Chain Management degree, 2012-2014
29. Attendee, induction ceremonies for Sigma Nu Tau, Novembers 2013-2015, 2011
30. Moderator, Young Alumni Engineering & Management Careers Panel, 3/7/2014
31. Member, CUSB Bylaws Revision Committee, Fall 2013
32. Member, Global Business Program Committee, Fall 2013
33. Mentor of first year CUSB student team in Entrepreneurship & Innovation course where they develop concepts for business funding, Fall 2013—students received \$2,700 funding for their startup
34. Provider of juggling lessons for the Service Auction of the Clarkson University Graduate Business Association, 2012
35. Member, Engineering & Management Faculty Search Committee, 2011
36. Member, ad hoc committee proposing technical courses for non-EM business students, 2010-2011
37. Attained professional engineering license (2010)—which was requested by CUSB because of its useful in ABET accreditation by helping to demonstrate that even though our E&M program resides within a school of business, we have engineers on the E&M faculty

Coulter School of Engineering Service

1. Member, committee to propose course requirements for a minor in Manufacturing Engineering (Spring-Summer 2022)
2. Member, Dissertation Committee, Zhechong Zhao (advisor Lei Wu), “Impacts of demand response and renewable generation in electricity power market,” 6/6/2014
3. Member, Dissertation Committee, Zhi Chen (advisor Lei Wu), “Uncertainty constrained energy optimization in smart grid,” 6/6/2014
4. Member, Examining Committee, Ph.D. Proposal, Zhechong Zhao (advisor Lei Wu), “Impacts of demand response and renewable generation in electricity power market,” 8/22/2013
5. Member, Examining Committee, Ph.D. Proposal, Zhi Chen (advisor Lei Wu), “Uncertainty constrained energy optimization in smart grid,” 8/22/2013

University-wide Service

1. Judge, Ignite Summer of Innovation 22 July 2022
2. Advisor of student club: College Republicans, Fall 2021-Spring 2022
3. Interviewee for Ignite First Year Seminar on Innovation Research, 2019-2021
4. Member, Marketing and Branding Task Force to support Clarkson's next Strategic Plan, Summer 2019 – Spring 2020
5. Interview prospective students for the Clarkson Honors Program, 2017-2019

R. John Milne

6. Panelist, 3Day-Startup (organized by Clarkson Ignite), September 2019
7. Poster session at the summer reunion's Clarkson Craze: discussed with alums my class on "Invention Development and Protection," on a Friday in mid-July, 2018-2019
8. Judge, President's Design Challenge, April 2019
9. Member, Research and Intellectual Property Committee, Fall 2018 – Spring 2019
10. Facilitator, 3Day-Startup (organized by Clarkson Ignite), October 2018
11. Member, Search Committee for AccessABILITY Services Coordinator, Summer 2018
12. Member of a committee on improving OAS testing procedures, Spring 2018
13. Campus Champion award, President's Design Challenge, April 2018
14. Reader (undergraduate) Honors Thesis, 2018
15. Reviewer (undergraduate) Honors Thesis Proposal, 2018
16. Member, Intellectual Property Advisory Board, Fall 2015 – Spring 2017
17. Attendee, Clarkson School Faculty Mentor Dinner, Fall 2016 – Fall 2017
18. Brainstorming facilitator, President's Challenge Workshop: Making Smart Buildings (hosted by Delta Zeta), 11/29/2017
19. Participant, Innovation Micro-challenge, Clarkson University, 4/14/2017
20. Co-facilitated 3D Print in Space design competition for students, Fall 2016
21. Member, Americans with Disabilities Act 504 Committee, Fall 2015 – Spring 2016
22. Member, Curriculum and Academic Policy Committee, Sept. 2013 - May 2016
23. Mentor, 3Day-Startup (facilitated by Reh Center), October 2015
24. Book discussion leader, new student orientation, Augusts 2014 and 2015
25. Judge, National Engineers Week [Students] Design Competition, Clarkson University, 2/21/15
26. Member, Search Committee for Assistant Director of the Office of Accommodative Services, Summer 2014
27. Member, ad hoc committee proposing an interschool program and curriculum for Master of Science in Data Analytics (Fall 2013 - Spring 2014)
28. Evolution to Excellence Kickoff Dinner & brief speech, 10/14/2011
29. Panelist, *Your first year at Clarkson*, 8/16/2011

Other Universities Service

- Presenter, Milne, R.J., "Career Lessons from an ORIE Practitioner," Enterprise Engineering Colloquium, Cornell University, 4 May 2016 (Invited presentation)
- Cornell Alumni Admissions Ambassador, 2006-2010
- Panel Reviewer of Senior and Master of Engineering Management Projects, Dartmouth College, Hanover, New Hampshire, 2004, 2005, 2009
- "Linear Programming in Practice," April 1997, seminar for the Department of Decision Sciences and Engineering Systems, Rensselaer Polytechnic Institute

Community & U.S. Federal Government

- Mentor, Engineering Design and Development projects, New Milford [CT] High School, November 2022-present
- Interviewed by U.S. Government Accountability Office regarding Communicable Disease and Air Travel, 8 April 2021
- Panelist for senior project presentations at Potsdam High School, 2013-2018

R. John Milne

- Founder and Facilitator of Youth Bible Exploration, United Christian Assembly Church, Jericho, Vermont, 2002-2008
- Guest lecturer at MMU High School math class, Jericho, Vermont (theme: usefulness of math in decision making for large scale problems, 2006)
- Coach, Jericho-Underhill, VT Recreation Soccer League, 2007, 2001-2005
- Coach, Mount Mansfield Girls Basketball League (undefeated in girls competition, 2002-2003)
- Assistant Soccer Coach Jericho-Underhill Recreation Soccer League, 1999-2000

Awards / Honors

Academic Honors

1. *Faculty Research Excellence Award (2022)*—awarded annually to a Clarkson University David D. Reh School of Business faculty member
2. Special issue editor of the annual *INFORMS Journal on Applied Analytics* (formerly *Interfaces*) issues focusing on the Franz Edelman Finalist Award papers (Jan/Feb 2013 issue-Jan/Feb 2022)
3. *Fellow* of the Institute for Operations Research and the Management Sciences “for exceptional practice of operations research, extensive service to INFORMS, and outstanding research in planning, scheduling, and supply chain management” (INFORMS, **elected** 2018)
4. Chair, INFORMS Section on Practice (2016-2017, **elected twice**)
5. Honor societies
 - Beta Gamma Sigma (for business, 2016)
 - Alpha Pi Mu (for industrial engineering, 1994)
6. *Faculty Teaching Excellence Award (2015—inaugural recipient)* awarded annually to a Clarkson University David D. Reh School of Business faculty member. The 2015 award was in honor of Dr. Robert John McGill and Dr. Nye Smith.
7. INFORMS President’s Pick article for June 2015. (INFORMS published 14 refereed academic journals at the time)
8. Vice-chair (Chair-elect), CPMS, the practice section of INFORMS, (January-December terms, 2014-2015, **elected twice**)
9. Judge on INFORMS panel selecting Franz Edelman Award winner (2012-2016, 2010, 2004-2006)
10. Secretary, CPMS (January-December terms; 2012-2013, **elected twice**)
11. INFORMS Board of Directors, Vice President/Practice Activities (2008-2009, **elected**)
12. Chair of the INFORMS Franz Edelman Award Committee (2005 and 2006 competitions)
13. *Daniel H. Wagner Prize* for Excellence in Operations Research Practice (INFORMS 2005)
14. Certified as a *Project Management Professional* (Project Management Institute, 2004)
15. Board member of the INFORMS Section on Practice (formerly Council, formerly CPMS) (2003-present)
16. *Franz Edelman Finalist Award* for Achievement in Advanced Analytics, Operations Research, and the Management Sciences (INFORMS 2000)

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17. *Del and Ruth Karger Prize* for Outstanding Doctoral Dissertation in Rensselaer Polytechnic Institute's department of Decision Sciences & Engineering Systems (1995)
18. *Certified Fellow in Production and Inventory Management* by the American Production and Inventory Control Society (1987)